Personality and Sexual Offending; Non-Sexual Motivators and Disinhibition in Context

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Sexual behavior, including sexual offending, occurs as the result of various factors. As Meston and Buss (2007) demonstrated, the reasons that persons engage in typical sexual behaviors are multiple and complex. While physical factors (e.g., pleasure, physical desirability) and emotional factors (e.g., love, expression) are related to sexual behavior, so are factors involving goal attainment (e.g., revenge) and insecurity (self-esteem "boost"). Tackett and Krueger (2011) noted that there are multiple pathways to aggressive and violent outcomes including high motivation (e.g., aggression and/or generally unconstrained impulses). Personality characteristics and related aspects of psychological functioning (including motivations and emotions) and disinhibition or "disconstraint" (deficits or limitations in self-control, including those of executive functioning and self-regulation) are of critical importance in the understanding of the nature of sexual offending. Both theoretical and empirical perspectives direct that sexual offenses result from the occurrence of and interactions among multiple sexual and/or other personality characteristics interacting across situations and time. Sexual offenses are most typically the end result of several different types of risk factors and processes. It might be expected that all sex offenses are exclusively the product of atypical or deviant sexual interests, hypersexuality (heightened sexual arousal levels), and/or sexual preoccupation. However, the available empirical data indicate that sexual factors are not always present or determinant of sexual offending (although these findings are potentially limited by research-related assessment issues relative to the self-report or other measurements and determinations of characteristic or episodic sexual interest and arousal levels). Deviant sexual interests, hypersexuality, and/or sexual preoccupation do show moderate correlations (and generally have the relative highest strength of association) with future acts of sexual offending. However, on their own at least as currently measured, they contribute a smaller amount of the variance in sexual reoffending than is commonly believed. In contrast, nonsexual characteristics, predominantly personality and related conditions, also show moderate correlations with future acts of sexual offending, and numerous theorists have suggested that sexual offending may be primarily or exclusively the result of nonsexual risk factors. Thus, various measures of antisocial personality and criminal history show relative similar association to sexual domains with sexual offense recidivism. In addition, research on the explanations provided by sexual offenders themselves shows that while sexual gratification is a key factor identified as related to sexual offending, nonsexual factors are also seen as central. Thus, beyond explicitly sexual motivations, Mann and Hollin (2007) found that child molesters most frequently explained their offending by way of desire to alleviate a negative emotional state or a wish to experience intimacy, while rapists attributed their offending months frequently to grievance and/or impulsivity. Of note, approximately 1/3 of rapists and 1/4 of child molesters did not or could not give any explanation for their offending. Of course, combinations of sexual and personality (and related) predispositions can also result in the particularly increased risk of sexual offending (e.g., Rice & Harris, 1997; Harris et al., 2003, Serin, Mailloux, & Malcolm, 2001; Hildebrand, de Ruiter, & de Vogel, 2004; Hawes, Boccaccini, & Murrie, 2012). Consequently, it appears that persons who commit sexual offenses are a heterogeneous group and that, in certain cases, nonsexual risk factors may predominate in the etiology of specific incidents of sexual offending or sexual offending by particular offenders as well as act in cumulatively with sexual risk factors relative to other incidents. If sexual elements are not always predominant for perpetrators

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in such situations, for a significant set of sexual offenses and select recidivistic sexual offenders, persisting personal characteristics, related processes, and dispositions must likely be centrally or even primarily involved in the enactment of sexual offenses. That is, in many cases, apparently nonsexual predispositions may be sufficient and, in other cases, necessary for sexual offending to occur. In addition, a more limited manner, situational factors might also play an important role in a specific sexual offense. Alternately, there appear to be a large group of persons characterized by deviant sexual interests and sexual preoccupations that do not act on their atypical interests and arousal [e.g., per the DSM-5 (APA, 2013), persons with paraphilias but not paraphilic disorders]. For such persons, the relative presence of personality and related factors would appear to be highly significant in reducing their likelihood of acting on their atypical sexual interests and/or preoccupation (e.g., by the inhibition of such behavior).

Like other specific actions, criminal behaviors, particularly violent criminal behaviors such as sexual offending, most commonly have multiple determinants; multiple factors converge and interact with one another in various ways as well as situational factors resulting in a particular attempt or enactment of a sexual offense. To the degree that there are regularities or reoccurrences in criminal acts such as repeat or intermittent sexual offending, that phenomenon provides an indication that individuals possess relatively uniform or characteristic predispositions or propensities to commit such crimes. Relative to such tendencies, Elwood (2009) noted the most useful definition of the term "predispose" is that the association between the variable of interest is one that is statistically associated with an increased likelihood of future sexual offending. Most generally, a predisposition is simply a tendency to act in a particular or expected way or susceptibility toward particular behavior or actions and may exist more or less uniform ally across time and particular contexts. Thus, while the known commission of a specific criminal or sexual offending act may reflect an increased or primary role of situational or circumstantial factors (e.g., acute intoxication, antisocial associates), repeated criminal or sexual offending suggests that something more than just situational factors are at play. In addition, the specificity and continuity of types of particular violent behaviors, such as sexual offending (both in the context of other antisocial behavior and as a more unique and specialized form of repeated criminal offending), indicate that there are more than simply situational factors involved. Rather, that continuity or recurring violent and/or sexual behavior highlights the likelihood of more enduring and persistent characteristics of an individual over time. Enduring predispositions of persons are generally thought of as related to their "personality" (and associated conditions) and, in the case of illegal sexual behavior, persistent or recurring sexual offense-related characteristics. Thus, in addition to sexual interests and varied sexual motivational factors, both personality and related dimensions of a person are appropriately viewed, both conceptually and empirically, as factors that can and do predispose individuals to commit criminal sexual offenses.

Both theory and research have identified the central role that varying aspects of personality and related conditions play in sexual offending as well as both criminal and violent offending (Eysenck, 1964; Gottfredson & Hirschi, 1990). Nestor (2002) identified that personality dimensions and/or motivational elements (e.g., self-control, hostility) were strongly associated with general criminal behavior and violence toward others. Theorists have also identified and demonstrated that personality factors are central to sexual offending as a specific form of criminal and violent behavior (e.g., Groth, Longo, & McFadin, 1982; Finkelhor, 1984; Knight & Prentky, 1990; Marshall & Barbaree, 1990; Hall & Hirschman, 1992; Ward & Beech, 2006; Ward, Polaschek, & Beech, 2006; Beech & Ward, 2004). Individual studies and various meta-analyses of risk factors or criminogenic needs have identified sets of personality and related psychosocial characteristics as primary dimensions of sexual offending and sexual offense recidivism in particular (e.g., Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2004; Mann, Hanson, & Thornton, 2010). Theories and available body of research identify several domains of psychologically meaningful predisposing conditions to sexual offending that are largely personality based: affective dispositions (e.g., anger, hostility, diminished empathy), general problem-solving and self-regulation (or executive functioning) issues (impulsivity, failure to learn from consequences, resistance to rules and norms), distinctive attitudes about society and potential victims (entitlement, emotional congruence toward women), and issues related to social relationships (lack of intimacy, recurrent conflict). Each of these empirically identified elements would be encompassed by personality, particularly aspects related to motivations, emotions, and self-regulation/self-control. In various combinations, these and other personality and related characteristics appear to coalesce into various forms of interacting psychological characteristics, which in turn predispose individuals to commit sexual offenses against youth and adults in specific immediate and recurrent social contexts. Predominantly, nonsexual personality and related conditions disorders related to sexual offending can be viewed as relating to the specific and cumulative effects of essentially dysfunctional or prepotent nonsexual *motivators* (including sensation-/thrill-seeking/risk-taking/novelty-seeking, anger/hostility, narcissism and entitlement, activating sexual offense-supportive attitudes, dominance/control (sadism), and desire for social belonging/nurturance) and varied and interacting factors of disinhibition, including failures of self-regulation and executive functioning. In addition, both other mental disorders (e.g., alcohol and drug use and ADHD) and select situational contexts also constitute potential nonsexual factors related to sexual offending. Despite the increasing

identified importance of nonsexual predisposing conditions to sexual offending, they have received remarkably little attention beyond that identification. Further, the field of personality and related predisposing conditions has changed dramatically over the past 20 years with important implications toward understanding the nature of nonsexual predisposing factors toward sexual offending. The purpose of this chapter is to review current perspectives on personality and related conditions and then to discuss their implications for sexual offending.

Toward A Contemporary Understanding of Personality and Related Conditions

Key Personality and Related Constructs in Relation to Sexual Offending

Personality, motivation, and self-control (inclusive of executive functioning and self-regulation) are all "fuzzy" concepts, each of whose boundaries and content are not fixed and precise. Moreover, each of these constructs overlaps, although both motivation and self-control (executive functioning and self-regulation) would all appear to be subsumed under the construct of personality. Costa and Widiger (2002) wrote: "Personality traits are often defined as enduring dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions" (p. 5). Others include attitudes and motivation as primary components of personality. The contemporary understanding of personality and its related conditions includes a number of perspectives that offer an updated and altered view of the nature, determinants, and organization of personality. More broadly and conceptually, personality has been understood as including regularities in or relatively enduring motivations; characteristic emotional orientations; mental representations (e.g., schemas) of self, others, and the "world"; interpersonal interaction sequences (e.g., social scripts); expectancies, goals, and motivation; regularities of appraisals and encoding of other persons and situations; self-regulation, executive functioning, and coping in reaction to stressors and distress; and strategies, competencies, and tactics in goal-directed action (e.g., Smith & MacKenzie, 2006). Relative to appreciating the role of nonsexual characteristics related to criminal sexual behavior, these perspectives are important in capturing the manner in which personality and related conditions function as key determinants in the occurrence of sexual offending. Current understanding of the interrelationship between personality, motivation, and self-regulation/self-control (executive functioning) offers valuable ways of considering relevant nonsexual factors in sexual offending. Other recent theoretical and empirical developments demonstrate that personality and related conditions are relatively consistent across similar situations and that individual differences in an individual's personality are best understood in characteristic behavioral signatures involving relatively consistent predispositions interacting with particular environmental characteristics. The core dimensional nature of personality has become clarified as a result of research, and the significant heritability of personality and related conditions has been demonstrated. In addition, it is now widely appreciated that personality has significant "unconscious" aspects and involves "dual" coexisting systems, both reflective and "hot" components. Both theory and scientific research have accrued that provide several frameworks for identifying those nonsexual personality and related conditions that appear important in the enactment of sexual offending. In turn, perspectives provide the framework for a discussion of personality and related conditions that interact with one another, as well as sexual factors, in the onset and maintenance of sexual offending.

Definitions and Aspects of Personality and Related Conditions

Personality Personality, although a term commonly used in varied communications, is actually quite a complex phenomena, one with many definitions and less than uniform agreement as to its nature. There is a common, everyday recognition that people manifest relatively uniform characteristics that allow them to be viewed as relatively constant, consistent, and unique (as a "particular" or "specific" person) and that persons have a relatively unique and consistent "identity" from the perspective of particular others and in common situations. From this more common perspective, personality is a global evaluation of a person's distinguishing attributes or characteristics of their inner experience and behavior; it can be viewed as an assessment of their individual distinctiveness or so-called individual differences. Personality refers to some consistency of predisposing elements for similar inner experiences and behavior over time that distinguishes persons from one another and is generally used to refer to those patterns of characteristic motivations, cognition content and processes, emotions or affective states, and behaviors that distinguish one person from another (systematic "distinctive" characteristics). At the same time, despite the perception that persons display relatively consistent features which distinguish them, there is also a secondary recognition that a person's experiences and behavior can be at least somewhat inconsistent to different degrees across situations and that there is some variation (and sometimes even complexity) to "who people are," temporally and situationally. Thus, personality can also be viewed as a "fuzzy" or multidimensional construct, a meaningful concept but one in which the content or boundaries vary—perhaps even considerably—according to context

or internal/external conditions and are not completely fixed; it has multiple meanings or manifestations which are clarified by elaboration and specification, particularly relative to context. Thus, within the personality literature, there is extensive discussion of "traits" [constructs of enduring characteristics as continuous dimensions (content and processes)] for which individual differences may be viewed and understood quantitatively in terms of the degree to which that characteristic applies to a particular individual (e.g., their degree of anger or concern for others) as well as a literature that identifies variation in personal characteristics across variations in internal and external factors, albeit still with consistency across those specific variations.

Motivation and Emotions Motivation and emotion are related constructs in that each is an affective and valenced (e.g., positive or negative toned) phenomena of psychological arousal that typically result in behavior; absent motivation or affect, it seems likely that no behavior will ensue. Both motivation and emotion are central dimensions of individual differences in personality, and each involves arousal as in physiological and/or psychological state of reaction to internal and external stimuli. They also exist in relation to one another, where the experience of or enacted motivation can elicit emotions and emotions can also serve as motivations. Emotions are most often considered the affective aspect of consciousness, the subjective experiences or reactions to events that occur in daily life, filtered by cognitions and accompanied by physiological changes. Motivation is considered to refer to the "impetus" or "movement" for action, for behavior; it is a process or experience of affective arousal that directs and impels a person toward particular "goals." Motivation is the "why" related to people's behavior and reflects internal states that "seek" external goals via behavioral enactment and that arise internally or are elicited or aggravated by environmental factors; these internal and external stimuli are seen as having the potential for two functions: informational and arousing or goal identification. Per Schultheiss, Strasser, Rosch, Kordik, and Graham (2012), "The term motivation characterizes an *affectively charged state* that energizes and directs action aimed at the attainment of a reward or avoidance of a punishment" (p. 650, emphasis added). Such stimuli initiate motivational and affective processes and are encoded and typically "matched" to memories based on previous learning. Common dimensions of motivation include activation (the sensitivity to and responsiveness of a range of stimulation to initiate arousal), persistence (continued effort toward a goal, often despite obstacles), and intensity (the vigor or strength over time) demonstrated in the pursuit of particular goals. Emotions are not typically associated with specific goals but may come to be stimuli for goals or experienced responses to goal-directed action. Hofmann and Kotabe (2012) distinguished between motivation and desire. They identified "desire" as an *affectively (emotionally) charged* motivation toward a certain object, person, or activity that is associated with pleasure or relief from displeasure. Desire refers to wanting to have or do something that instigates behavior. Desires are distinguished from general motivational states in that they are "about" *specific* objects or people and arise from the interplay of external stimuli, the individual's general motivational states, and a particular person's learning history. Motivations can and commonly do evolve or consolidate into dispositional states, where a specific individual is characterized by relatively persisting motivational factors and desires.

Corr, DeYoung, and McNaughton (2013) identify that most important classes of motivational stimuli can be grouped into "rewards" and "punishments" (or stimuli/behaviors desired and those avoided due to anticipated or associated fear), but point out that the *omission* of a perceived loss of an anticipated or expected "reward" is also experienced as punishment, a "frustrative non-reward." Per Corr et al., multiple motivational systems control both approach and avoidance behavior. Approach behavior includes *appetitive motivation* related to behavior directed toward goals that are usually associated with positive hedonic processes, while avoidance is related to *Aversive motivation* which involves escaping from some hedonically unpleasant condition (e.g., a reaction to a feared stimuli). Loewenstein (1996), in examining the discrepancies between actual behavior and perceived self-interest, emphasized the distinction between "visceral factors," which include motivational drive states including sexual desire and varied emotions, largely with hedonic qualities for the individual. He identified that the visceral factors had two implications:

> First, immediately experienced visceral factors have a disproportionate effect on behavior and trend to 'crowd' out virtually all goals other than that of mitigating the visceral factor. Second, people underweight, or even ignore, visceral factors that they will experience in the future, have experience in the past, or that are experienced by other people. (p. 272)

He noted that visceral factors, at higher levels of intensity, "can be so powerful as to virtually preclude decision making" (p. 273). More specifically, he argued that as visceral motivating factors increase in intensity, they overly focus attention and motivation on more proximal object goals and related "consumption," leading to suboptimal patterns of behavior and self-destructive behavior. Thus, he noted, "intense visceral factors tend to narrow one's focus inwardly"—to heighten self-centeredness and undermine concern for others. Put another way, visceral motivation impels individuals to myopically fixate on satisfying their immediate urges. Further, he noted that as time passes, persons tend to forget the degree of influence that such visceral motivations previously had on their own past behavior; consequently, most typically, past behavior that occurred under the influence of visceral factors will be increasingly forgotten.

Corr et al. (2013) noted that investigators such as Berridge (e.g., Berridge, Robinson, & Aldridge, 2009; Kringelbach & Berridge, 2012) have identified at least two major reward or motivational systems, one *incentive*-based ("wanting") and one *hedonic*-based ("liking"), each controlled by different brain sites. The incentive reward system involves motivation to seek reward (e.g., as iron toward a magnet) by commanding attention and enacting "approach"; an internal or external sensory experience causes some object or experience to be sought out. "Wanting" can range from particularly directional and "target-focused" to a broader projected range of more general rewarding stimuli. In contrast, the hedonic reward system is related to the "pleasure" or satisfaction (positive affect) experienced following attainment or contact with a reward/goal (which they note, as reinforcement, is relatively likely to produce enhanced motivation to subsequently approach similar "rewards"). These two reward systems constitute what is referred to as the pleasure system; further, it is noted that activation of the pleasure system aids in forming a cognitive representation of the rewarding stimulus in memory, which then renders that stimulus more likely to trigger later, repeated approach behaviors. This may represent a third aspect of motivation (learning), namely, the development of associations, representations, and anticipatory beliefs about future rewards. [In addition, subjective pleasure is but one element of reward, and "rewards" may influence behavior even in the absence of conscious awareness of them.]

However, dysfunctions of these motivational systems can occur. While wanting and enjoying typically go together, they may not always do so; typically, people want what they like and like what they want. In addition, sensitization occurs relative to motivated behavior, an *increase* in responsiveness to a stimulus (goal) or greater generalization to related (conditioned) stimuli. Within the context of sexual offending, motivation can be viewed as potentially expanding factors that create the intention or desire to enact what constitutes a sexual offense; in addition, related facilitatory factors increase the likelihood of committing a sexual offense, given the presence of relevant dispositions. In certain instances or for particular periods of varying time, habituation can also occur after repeated exposure to a specific stimulus, leading to at least temporarily decreased shifts in pursuit of particular stimuli but often associated with later renewed increase in reinforcement and more intensive pursuit of a goal. However, Kringelbach and Berridge noted that the incentive salience or "wanting" might become pathologically amplified so that the actual potency of liking or pleasure may actually decrease. Following the repeated gratification of goal seeking in behavior or imagination, an individual may become hyperresponsive and goal-cues become hyper-salient; this is referred to incentive sensitization or increased "wanting." Such cues and associations may be difficult to ignore, and motivational *toxicity* can arise where a motivation or drive effectively takes "control" of an individual's goal-directed behavior, relative to the expense of other aspects of their life (e.g., Esch & Stefano, 2004). Motivational "toxicity" occurs when an individual experiences a diminished or loss of behavioral control when presented with stimuli that have come to represent something desired and previously liked (something highly rewarding). Similar to drug addiction, such motivational toxicity is characterized by overvaluing certain stimuli or goals, reduced sensitivity to other potential rewards, and impaired inhibitory controls (sometimes in the context of dispositional impaired inhibitory controls) along the lines of heightened wanting. Such sensitized cue-triggered "wanting" or "overvaluing" a goal (despite the waning of the hedonic component) can persist for years after someone has stopped acting on the "liking" component of motivation and may account for the tendency of persons with dysfunctional motivational goals to relapse after quitting, sometimes even after many years of abstinence (e.g., Robinson & Berridge, 1993). Alternately, per Berridge et al. (2009), it may simply become easier to activate certain motivations and desires because of multiple brain pathways (expanded stimuli) that become responsive to expanded stimuli but harder to generate pleasure. Incentive sensitization produces a bias of attentional processing toward reward-associated stimuli; it also produces pathological motivation for the stimuli itself (compulsive "wanting"). Similar to addiction, based on more simple conditioning or learning, incentive sensitization can come to differ from more cognitive desires and lead to what might be referred to as "irrational" wanting, a "want" for something that is not cognitively or consciously desired (e.g., due to liking) caused by excessive incentive salience. Similar to substance abuse, this type of wanting or "incentive sensitization" may explain some portion of both the persisting and episodic activation and enactment of sexual offending.

Another aspect of motivation relates to individual's conscious perception of the degree to which their behavior is motivated. Relative to addiction, for example, Badger et al. (2007) found that people underestimate the influence of motivational states they are not currently experiencing. Thus, individuals typically cannot appreciate the intensity of impulses, desires, or temptations when they are not currently experiencing it. In addition, an inability to appreciate the subsequence motivational power of particular motivational factors likely contributes to initial decisions to pursue potentially unhealthy desires.

Emotions as affects are both similar to and different from motivation. Like motivation, emotions appear to be largely characterized by hedonic or valenced experience resulting from "events"; they can be responses to other internal experiences but are more often considered to be elicited in response to perceptions with varied degrees of consciousness of external events. Emotions, like motivations, are likely the product of multiple biological and experiential factors as well as personal values and goals. Thus, emotions are subjective

heightened sensations, typically but not always conscious; they are an affective experience that is characterized by physiological changes triggered by attention or pre-attentive processes and then typically "defined" or "filtered" by cognitive process or more enduring cognitive content. Thus, both motivations and emotions appear to be largely affected by cognitive appraisal; often out of immediate awareness, individuals experience sensations, but those interpretations, "labels," and meaning depend on cognitive processing in relation to the perceived environment. In turn, emotions affect both cognitive content and processing; it is widely believed that the brain systems that mediate emotions and cognitions overlap. In contrast to motivation, emotions are more reactive but less specific and less tied to explicit goal associations or directions. To a large degree by situation, emotions may be considered the subjective experience of being motivated. Like motivation, Bradley (2000) characterized emotions as having two primary dimensions: hedonic valences (varying in polarity from positive to negative) and degree of activation, arousal, or intensity. Emotions, as a subjective experience of states of recognized motivation, can and do impel a person to act in some particular way (e.g., to approach or avoid). In addition, emotions can also be thought of dispositions, similar to character traits, where an individual is predisposed to particular affects relative to other persons and thus characterized by predominant affective experiences and manifestations. Emotions and motivation appear to reflect a circularity or interaction; emotions can elicit motivation, and motivation is often associated with emotional experiences. Motivation is considered a state that produces behavior specifically oriented to propel a person toward one or more goals that have hedonic value, while more commonly emotions reflect an individual's status relative to such goals. Nonetheless, emotions and motivational states can act synergistically, creating more potent behavior fueled both by specific wanting and by anticipation of hedonic satisfaction.

"Impulses," "urges," or "desires" may best be viewed as either motivational or emotional manifestations relative to something specific at a particular time due to an interaction between constitutional, cognitive, and situational factors. They involve a push (an impulsion or impetus) or a pull (prompting, elicitation, or provocation) from some desired and/or present stimuli or imagined/perceptual stimuli. "Impulses," "urges," or "desires" typically involve varying degrees of arousal or intensity based on both a person's underlying predispositions and contextual factors and tend to be specifically directed. They tend to be immediate in a temporal and a "spatial" sense (directed toward short-term gratification) and possesses a strong incentive valued based on a hedonic (and wanting) reaction to a "tempting stimulus." Impulses, as a manifestation of motivation or emotion, typically represent a prepotent inclination to perform a certain behavior, typically an urge to approach or act on the underlying state(s). Hofmann et al. (2009a) noted that following impulses "seems to be the simplest and most natural thing in the world," but "most unconstrained impulsive behaviors interfere with the attainment of long-term goals or create conflict with others at some point." Hofmann and Kotabe (2012) make a distinction as well between desires/urges and "temptations," with the latter indicating that someone has a desire to engage in some behavior but also has some awareness that other factors present reasons not to act on the desire. Hofmann and Van Dillen (2012) note that a desire turns into a temptation (and thus enters the realm of self-control) only when or if the behavioral target conflicts with a person's values or self-regulatory goals. However, perhaps more important, they note that as individuals as ruminate about their desires and temptations, "they may generate more supporting cognitions that license and justify indulgence" (p. 319). Thus, cognitive awareness of desire or temptations can lead to an increase in impetus for actions.

Self-Control, Self-Regulation, and Executive Functioning As common definitions of personality include most relatively unique and enduring aspects of an individual's functioning, it is reasonable to consider individual differences in a person's "management" of motivation and emotions subsumed by personality. This overall process of management might most appropriately be labeled as self-control, where goal-directed behavior is "constrained" and modulated for optimal personal gain. Both personality theory and research demonstrate that a key developmental process is that shared social values, personal standards, and progressively longer-term goals typically become increasingly salient for individuals related to their experience of and expression of motivations and emotions. That is, particularly in a social world, many or most immediate manifestations of potentiated motivation and emotion become less acceptable or adaptive in the contexts of social norms and rules and in the individual's pursuit of valued longer-term goals. Several overlapping constructs refer to the elements of personality that represent the mechanisms by which impulses/urges/desires/temptations (stemming from motivational and emotional states) are managed, regulated, or controlled, typically in relation to maintaining some baseline level of functioning or of pursuit of more distal but highly valued alternative "goals." Numerous writers have suggested that self-control is the balance of attention to and consideration of "top-down" (goal driven) and "bottom-up" (stimulus driven) in particular contexts. In most respects, self-control is generally synonymous with "inhibition," defined as the conscious or unconscious restraining, constraint, or suppression of impulse-generated behavior. Thus, self-control exists as the opposite of "disinhibition," when disinhibition is understood as a condition or process in which an individual manifests

absent or reduced capacity to or in intention to manage pressing motivators (e.g., urges, temptations, emotions) in a situation and, as a consequence, acts on a desire or state of arousal in a relatively unmodulated manner. Biologically, self-control appears to be generally distinct from much of what is implied by "impulsivity" (Hofmann et al., 2009a, b; Reynolds, Ortegren, Richards, & Wit, 2006). Self-control represents constraint, relative inhibition or modulation of reactive emotional states and elicited and impelled motivational states (particularly prepotent or heightened dispositional characteristics) as manifested in particular impulses; more specifically, it refers to the effortful control and potential altering of motivations/emotions, thoughts, and behaviors "in the service of" personal and social goals or values. Available research indicates that individuals differ in their dispositional (generally enduring) ability to exert self-control (trait self-control) and also in their current, momentarily available resources for exerting self-control (state self-control); dispositional self-management can be affected by various internal factors such as distress, depletion, or situational demands. In terms of trait self-control, some individuals demonstrate a strong ability to self-regulate consistently from early childhood through adulthood, whereas others are consistently less successful at self-regulating. Generally, self-regulation is viewed as highly adaptive; Metcalfe and Mischel (2004) and Mischel (1999) spoke to the presence of self-regulatory features of persons that exist to manage (or not) less substantive impulses and feelings pressing for release so that less immediate and long-term goals can be obtained. Data clearly supports that self-control is highly adaptive: Tangney, Baumeister, and Boone (2004) found that persons with high scores on self-control were better off than those with low self-control on virtually all indices of effective adult functioning.

Self-regulation is a term often used as synonymous with self-control. However, within the psychological research literature, self-regulation most commonly refers to the more conscious resolution of conflict between immediate goals or desires and more long-term, socially, or personally valued goals. Baumeister (1998) indicated that self-regulation refers to the self-monitoring and managing one's self by altering its own responses or inner "states" (e.g., motivational or emotional) typically to delay gratification of overriding a particular state-based response to or behavior and replacing it with a more desired response related to "higher" or more long-term goals. As such, it is for the most part a more conscious top-down process, requiring awareness of the conflict of an inner state, the potential immediate response, and potential longer-term goals. Self-regulation requires such capacities as self-awareness (self-directed attention), planning (considering, organizing, and selecting among goals and strategies for actions), and the ability to delay gratification of urges, temptations, or surges of affect. Hofman et al. (2012a) suggested that, in a broad sense, successful self-regulation entails *social and personal standards*, sufficient *motivation to resolve discrepancies* between standards and actual states, and *sufficient capacity to achieve these thing*s in light of obstacles and temptations along the way. As standards, recognition of conflicts within the "self" and the capacities to address such conflicts self-control (or self-regulation) is the ability or capacity to "manage" the potentially conflicting experiences or expressions of one's feelings, motivations, and behaviors in order to obtain some more distal "reward" (or desired goals) and to avoid punishment. In various writings (e.g., Baumeister & Heatherton, 1996; Muraven & Baumeister, 2000), Baumeister has suggested that "strength model" or ego depletion models were most appropriate for self-regulation of such impulses. By this, he identified that a person's capacity for self-regulation appears to be a limited, finite constitutional resource, albeit potentially renewable over time and, to some extent, of being capable of being increased or decreased as a function of relative practice. In reviewing the literature on self-regulation, the ego depletion model of self-regulation has achieved wide acceptance, both theoretically and empirically. Baumeister and Heatherton (1996) indicated that given individual differences, some persons will demonstrate broad deficits in self-regulation in managing desires or other states; others will only show self-regulatory failure under specific situations (e.g., under stress, when overwhelmed by many simultaneous demands for self-control) and that self-regulation can be strengthened and facilitated by regular use and practice. However, Baumeister and colleagues argued that self-control "strength" is expended in the process of self-regulation; without replenishment of that strength, select persons may become acutely and chronically deficient in self-regulation and thus even more vulnerable to diminished expectancies of control or enhanced perception of "temptation" or competing motivational factors. However, while both persons high and low in self-control are subject to depletion in self-control, persons high in trait or dispositional self-control remain more capable of extended management than do persons with low trait self-control.

Executive functions (EF) are typically referenced in a neuropsychological context and have been described in a number of ways. Like personality, EF is also considered a "fuzzy," multifaceted construct that typically references a set of higher-order neurocognitive processes (e.g., metacognition: the cognition of conditions involved with monitoring and control of cognition) that allow persons to make choices and to engage in purposeful, goal-directed, and future-oriented behavior; EF is sometimes viewed as encompassing self-regulation (e.g., Barkley, 1997) or as providing the cognitive-affective structures and processes that provide both the bottom-up and top-down basis of self-control (e.g., Hofmann et al., 2012). As a cognitive "meta-process" or metacognition, Friedman et al. (2008) suggested that "inhibition" was the construct most closely related to a common or overall EF

factor, particularly in relation to real-world problems. Barkley (2012a, b) identified EFs as specific types of self-regulation or self-directed actions that people use to manage themselves effectively in order to sustain their actions (and problem-solving) toward their goals and the future. The elements of EF "permeate[s] psychology even when the construct itself is not invoked. In fact, self-regulation, self-control, emotion regulation, delay of gratification, attentional control, self-monitoring and response modulation, to name a few, all rely on some aspects of EF" (Suchy, 2009, p. 11). Similarly, EF has been defined as a collection of varying abilities that involve regulatory control over thought and behavior in the service of goal-directed or intentional activity, problem-solving, and adjustment of behavior to meet situational demands, particularly contextually appropriate behavior, and to inhibit unsuccessful, inappropriate, or impulsive behaviors (e.g., De Brito & Hodgins, 2009b). Barkley (2012b) noted that when experts in EF were asked to generate terms that would be considered, they came up with a total of 33; the greatest agreement was for the following six: (1) self-regulation, (2) sequencing of behavior, (3) flexibility or shifting of behavior, (4) response inhibition, (5) planning or strategy evaluation, and (6) organization of behavior. EF appears particularly important in a person's management of novel, nonroutine, and/or unstructured situations, managing overlearned patterns of experience (thought, feeling, and behavior) and seems essential to avoiding or inhibiting strong responses that are inappropriate to context or other parameters. Per Suchy (2009), EF can be viewed as both an evolutionary and learned adaptation that frees a person

> …from innate, hardwired drives and reflexes, as well as from over-practiced, over-learned and prepotent response…[EF] allows us the latitude of considering options and selecting a specific response to any given stimulus s based on situational contexts, previously acquired knowledge, and long-term goals. (p. 106)

He noted that EF is particularly effortful process that remains "dormant" for much of a person's everyday life and only comes on line when a person perceives a novel and/or complex situation that precludes an automatic, routine response. Further, Eslinger (1996) suggested that EF was most importantly a "social executor" and that social disabilities arising from EF impairment were the most distinctive aspect of EF.[1] There is considerable agreement that EF is best understood as a multidimensional, meta-cognitive process, where the "whole" is greater than the specific components identified in experimental and clinical assessment, many of which appear to overlap and interact with each other.

From a developmental perspective, so-called effortful control is regarded as a primary temperamental dimension and may properly be regarded as a dimension of personality, characterized by individual differences in its elements (e.g., Rothbart, 2007). As an early manifestation of a critical personality disposition, effortful control includes the focusing and shifting of attention, inhibitory control, perceptual sensitivity, and a higher threshold for pleasure. This factor reflects the degree to which a child can focus attention, is not easily distracted, can restrain a dominant response in order to execute a nondominant (as opposed to a prepotent) response, and to employ delay of gratification and planning. Developmentally, Rothbart (2007) has suggested that effortful control is based on and dependent on the particular development of "executive" attention skills in the early years. In turn, such attentional skills allow greater self-monitoring and, thus, the potential for control over reactive tendencies. Bridgett, Oddi, Laake, Murdock, and Bachmann (2013) demonstrated that generally EF and effortful control overlap, particularly with regard to self-monitoring and working memory, but *not* with inhibition (e.g., similar to Reynolds et al., 2006); compromised EF, specifically in combination with deficient inhibition (e.g., disinhibition), was uniquely associated with increased tendency to enact negative affectivity. Conversely, trait negative affect-mediated—undermined—EF and effortful control. Thus, developmentally as well as biologically, the dispositions for self-control and for impulsivity appear to be independent; their relative presence can conflict or potentiate prepotent motivations.

Barkley (2012b) proposed that the six core domains of EF include:

1. Attention and self-awareness (the ability to focus attention on one's self) as the starting point or pinnacle EF.
2. Executive inhibition (or cognitive inhibition) provides the ability to separate external stimuli from a response, inhibit or use self-restraint from immediate reaction, or enact a prepotent or more "automatic" motor response to allow a more "considered" response.
3. *Nonverbal* working memory involves the use of self-related multisensory mental representation (particularly imagery). This capacity allows seeing potential behavior in one's mind. This allows behavioral reenactments or rehearsal in memory related to hindsight and foresight (e.g., over time) and permits imagining a hypothetical future from an experienced past.
4. Verbal working memory refers to the "mind's voice," "self-talk," or private speech as a means of self-guidance. It involves providing self-direction and/or questioning oneself in a novel situation and permits the discussion of conflicts between longer-term self-interests and short-term self-interests.
5. Appraisal of motivation and emotion rooted in self-awareness. This allows for self-control (modulation) of feelings and urges that arise in the context of internal and external stimulation and provides a potential "metric" for

[1] Unfortunately, as Barkley (2012b) has noted, the measurement tasks typically utilized to assess EF (e.g., neuropsychological instruments) lack ecological validity for many issues, creating potential issues for generalization to real-life unstructured, novel situations. Nonetheless, the presence of deficits in EF in controlled evaluation sessions clearly suggests the probability of such deficits in novel, "real-world" settings.

"calculating" costs and benefits of possible courses of action (goals and means of attaining goals).
6. Problem-solving involves analyzing the features of one's environment and one's past behavior to develop plans for goal-directed action, then weighing pros and cons, and then making choices. Manipulate information into novel combinations to overcome obstacles and achieve weighed goals.

Moffitt (1990) effectively likened the day-to-day operations of the frontal lobes as the site and/or mechanisms of EF, stating:

> The normal functions of the frontal lobes of the brain include *sustaining attention and concentration*, abstract reasoning and concept formation, goal formulation, *anticipation and planning*, programming and initiation of purposive sequences of motor behavior, effective
> *self-monitoring of behavior* and self-awareness, and *inhibition of unsuccessful, inappropriate,*
> *or impulsive behaviors*, with adaptive shifting to alternative behaviors. These functions are
> commonly referred to as "executive functions," and they hold consequent implications for
> social judgment, *self-control*, responsiveness to punishment, and ethical behavior. (p. 115; emphasis added)

Thus, per Moffitt and others (e.g., Beaver et al., 2007), both executive functions and self-control are focused on the importance of regulating impulsive tendencies and the ability to control emotions and sustain attention, the salience of mental capabilities and cognitive functioning to anticipate and forecast behavioral consequences, and the ability to modulate tempers and to inhibit inappropriate conduct and are strongly related to aberrant, delinquent, and violent behaviors.

Impulsivity and Disinhibition Relative to Personality Conversationally, self-control is often conceptualized as particularly directed at the management of impulsivity, where impulsivity represents the opposite of self-control. However, increasingly, impulsivity is viewed as a multidimensional construct. First, it clearly involves both trait (dispositional) and state elements but also consists of varied subcomponents depending on context and measurement (e.g., Cross et al., 2011; Derefinko, DeWall, Metz, Walsh, & Lynam, 2011). Generally, impulsivity is viewed as the tendency (force, urge) to act on motivated desire/temptation or emotions with no or diminished consideration of consequences (particularly more distal or negative ones), often leading to inappropriate or even risky behavior that is inappropriate to a situation and/or leads to undesirable consequences. Others view impulsivity more simply as a rapid, unplanned reactions to stimuli without adequate processing of relevant information ("impulsive" decision-making); from a psychiatric perspective, Moeller et al. (2001) defined impulsivity as "…a predisposition toward rapid unplanned reaction to internal or external stimuli without regard to the negative consequences of these reactions to the impulsive individual or other others" (p. 1784).[2] Whiteside and Lynam (2001) used factor analysis of well-identified personality factors and found four distinct personality facets associated with impulsive-like behavior including sensation-seeking, urgency, (lack of) premeditation, and (lack of) perseverance (persistence). These traits were utilized to create the UPPS Impulsive Behavior Scale. Urgency is the tendency to act rashly; negative urgency involves reacting when experiencing negative affect (e.g., when distressed), while positive urgency involves reacting when experiencing positive affect. Sensation-seeking was the tendency to seek out novel and excitement. Lack of planning is the tendency not to think ahead before acting, while lack of persistence is the inability to sustain attention and motivation in pursuit of a more distal goal. Miller, Flory, Lynam, and Leukefeld (2003) validated these four dimensions of impulsivity. Smith et al. (2007) utilized factor analysis and found that lack of planning and lack persistence appeared to be two facets of a larger factor. Miller et al. found that lack of premeditation (deficient ability to consider possible consequences of one's behavior before acting) and sensation-seeking were the most consistent dimensions of impulsivity in predicting externalizing behavior. Leshem and Glicksohn (2007) also found that trait impulsivity was to a large degree related to heightened "venturesomness" or sensation-seeking. Sensation-seeking appeared to relate to the frequency of engaging in such behavior, while urgency as a dispositional element appeared to relate to a range of problem behaviors. Smith et al. indicated that rash action when distressed was distracting from negative affect and might lead to behavior that is pleasurable and leads to an immediate decrease in distress (negative reinforcement). From this perspective, without the experience of immediate punishing consequences, opportunities are missed to learn more effective self-management responses. Tuttle et al. distinguished the *capacity* for self-control from a *desire/interest* to exercise such control, inserting a volitional component (e.g., a motivation or intent to apply self-control); persons differ both in their "self-management skills" and the value they attach to utilizing those skills, perhaps relative to particular motivations and contexts. Impulsivity appears to be characterized by individual differences in a value or goal-related dimension (is it necessary or of importance to an individual

[2] In distinction, compulsivity refers to repetitive behaviors that are performed according to certain rules or in a stereotypical fashion and if resisted lead to negative affect. Impulsivity is more associated with pleasure seeking. Compulsivity is a tendency to repeat the same, seemingly purposeless acts, which are sometimes associated with undesirable consequences. Both impulsivity and compulsivity can be viewed as volitional impairment, with compulsivity more apparently driven by cognitive factors. Sexual behavior can be a product of compulsivity, but sexual offenses are more likely to be impulsive in nature.

to exercise self-regulation of one or more particular impulses?) as well as by the relative strength (dispositional or situational), to enact constraint in the presence of impelled or elicited states. What can be seen in the various definitions of impulsivity is that, for most writers, the construct consists of impulsivity which is composed of two components: motivators or behaviorally activating factors (sensation-seeking, urgency) and deficits in inhibition. Inhibition refers to the process of overriding urgent impulses or desires by the "stopping" or "slowing" of some psychological phenomena (with or without conscious intention) either temporarily, intermittently, or permanently. This second component of so-called impulsivity may be best referred to as disinhibition, reflecting limitations in EF, self-regulation, and other aspects of self-control (a lack of various inhibiting or modulating factors including planning, premeditation, and persistence toward more distal goals).

In short, among the more critical aspect of personality and related behaviors are motivation and self-control (as including both executive functioning and self-regulation). On all levels of understanding (e.g., biological, developmental, and psychological), these are each overlapping, related and interacting constructs. It is clear that dysfunctions in motivation and self-control all likely play key roles in sexual offending, including those instances where nonsexual predisposing factors appear to predominate or function as primary risk factors in sexual offending.

Relevant Perspectives on Personality

Personality as Dimensional

A primary development in the understanding of personality is the growing acceptance of theory based on increasing and relatively consistent research regarding the central or primary dimensions of personality. Dimensional structural models of personality reflect theoretical and empirical efforts to identify the "essential" or "primary" domains of personality on which people differ both in type and degree. Structural-dimensional models of personality are hierarchical with a greater number of personality "facets" subsumed under limited number of superordinate personality factors. A number of dimensional models of personality have been proposed, all of which have a significant amount of overlap (Eysenck, 1967; Leary, 1957; Gray, 1994; Cloninger, 1987, 1979; Zuckerman, Kuhlman, Thornquist, & Kiers; 1991; Tellegen & Waller, 1992; and the Five-Factor Model (FFM) developed by McCrae & Costa, 2003, 2004). In particular, the FFM has become the most generally accepted model of general personality structure and provides a basis for understanding personality disorders (or sets of maladaptive persons laity characteristics) as abnormal variants of normal personality dimensions (see also Markon, Krueger, & Watson, 2005). From the perspective of the FFM, a review of the literature would indicate that a number of personality dimensions have been implicated in criminal, violent, and sexual offending including antagonism and negative emotionality (anger, hostility, distress), sensation-seeking and risk-taking, a lack of premeditation or thoughtfulness (deficient ability to consider possible consequences of one's behavior before acting), low conscientiousness and constraint, and a general (historical) impulsiveness.

Personality and Related Conditions as "Dual Systems"

Motivational and emotional aspects of personality are manifested in the context of self-regulation/self-control; they are the "yin" and "yang" of much human behavior such that this duality is a key aspect to personality (e.g., as a "dual system" of motivational forces in the context of varying degrees of regulation/constraint). However, both motivational and emotional conditions vary as psychological phenomena; some are more "visceral," "incendiary," and "tempting" than others, with the "hotter" incentives eliciting more potent motivation than the "cooler" incentives in individuals. While satiation can occur, as does self-control depletion, most appetitive or consummatory urges increase again over time, particularly to the degree that they have resulted in previous positive reinforcement (either behaviorally or via covert reinforcement through imaginal processes). In certain instances, even "sated" persons may respond with approach behavior toward someone or something that has particularly high incentive value; novel, dispositionally exciting stimuli appear particularly potent. [In contrast, most long-term, distal goals acquire motivational power only over time and through socialization.]

Among others, Metcalfe and Mischel (1999), Hoffman et al. (2009), and Kahneman (2011) have proposed the conceptualization of a dual processing framework, involving "hot" and "cool" dimensions. The "hot system" of processing experiences appears to be a "bottom-up" system developmentally specialized for quick emotional processing and response on the basis of unconditioned or conditional trigger features, a "go" system as in a basic fight or flight process. The hot system provides the basis for dealing with relatively automatic responses to both appetitive and fear-producing stimuli. Thus, rapid automatic triggering, conditioned responding, inflexibility, stereotypic and affective primacy characterize "hot" systems. In contrast, the "cool cognitive system" is a "top-down" one, specialized for more complex, longer-term goals and representation and thought, a "know"

system. The cool system provides the mechanism for a more integrated, personal identity, such that simple to complex knowledge about sensations and emotions, thoughts, actions, and contexts are organized into a personal and "world" narrative that is typically coherent and capable of deferring automatic reactions to appetitive and threat stimuli toward more long-term goals for self or society. Metcalfe and Mischel suggest that when the "hot system" is dominant (when the cool system is inadequately developed, temporarily or chronically dysfunctional, or an individual does not "activate" their available control strategies), the simple exposure of a salient "hot stimulus" will typically elicit the automatic relevant and/or prepotent response. Under such conditions, person's cognitive processing of powerful, visceral motivators is often fast, automatic, largely unconscious, and, depending on context, potentially costly in terms of competing goals.

Barkley (2012b) too noted the importance of essential "adaptive" self-management or self-regulation "in the face of strong temptations and immediate 'hot' situational triggers that elicit impulsive, automatic responses that threaten the individual's pursuit of more important distal goals…" (p. 17). Barkley noted that motivations for pleasure (and for avoiding pain) and the emotions that accompany everyday and stressful experiences serve as the "hot" domain of EF providing the "why" or basis for behavior. [To be contrasted with the "cool" domain of EF (such as working memory, planning, problem-solving, and foresight) which may provide the basis for the "how, when, where" of behavior.] Another dimension to EF is evidence that they may operate differently in different contexts relative to the degree of affective or motivational valence perceived in contexts or situations. A notion of "cool" EFs refers to "to-down" processes that are purely cognitive in nature and elicited in neutral settings; working memory, sustained attention, set-shifting, and certain types of response inhibitions are considered to be cool EFs. For example, the inattentiveness associated with ADHD likely reflects cool EF deficits. In contrast, "hot" EFs are viewed as cognitive processes that have an affective, motivational, or incentive component and involve more affective decision-making such as appraising the significance of a stimulus, a state of heightened arousal (motivational significance) or behavioral choices related to a desired stimulus or elevated arousal. Disinhibition is likely to be a function of deficits in either or both cool or hot EF.

Relative to criminal, violent, and sexual offending, it seems likely that "hot" systems of both motivation and control are relatively potentiated for individual perpetrators; more predisposing conditions for sexual offending are relatively simple, prepotent, and automatic, while "cool" systems are either underdeveloped or ignored generally and/or in specific situations of particular affective valence.

Personality and Related Conditions Have Significant "Unconsciou" (or Out of Awareness) Elements

In psychological science, there is increased awareness of the significance of *unconscious* processing of internal and external stimuli; in fact, it appears that a considerable amount of psychological experience (motivation/affect, thoughts) occurs outside of personal awareness. As Nisbett and Wilson (1977) suggested in their seminal article, most or many persons are neither aware of nor can accurately report on the true causes of their behavior. Cognitive unconsciousness refers to the findings that much of what the mind "does" occurs outside of consciousness, for example, leading to relatively automatic behaviors. A key distinction of personality, particularly relative to motivations as internal states, is that between explicit (conscious) and implicit (unconscious) motivations; as Westen (2006) has noted, a large body of research indicates that motivation falls into both categories and may have different antecedents. Bargh and Morsella (2008) noted, "…the past 25 years have produced a stream of surprising findings regarding complex judgmental and behavioral phenomena that operate outside [personal] awareness" (p. 75). Westen (1999) has pointed to the activation of unconscious beliefs, fantasies, networks of association, and experiences that are unconscious but can substantially influence conscious thought and behavior, remaining relatively inert until activated by internal or external stimuli. He noted that considerable motivational and affective processing, including sexual arousal, occurs outside of personal awareness. Bargh and Morsella (2008) confirmed that unconscious "simulation" of a desired or wanted course of action can be learned without actually performing such actions via observation, modeling, narratives, and so on (and thus without initial risk or other consequences). They also pointed out that such unconscious fantasies and urges may *also* come to be experienced as explicit, conscious ones and that unconscious and conscious fantasies can serve as convergent stimulation for potential, future action. Bargh and Morsella also pointed out that unconscious motivations, like thought processes, become automatized particularly through high reinforcement in particular situations. Schultheiss et al. (2012) noted that implicit motivation is generally biologically based motivation related to the attainment of pleasurable and rewarding goal states and which typically influences behavior "non-consciously;" such implicit motivation directs behavior toward incentives and away from disincentives without requiring conscious awareness. In fact, research suggests that people who are *less perceptive* of their visceral reactions appear to exhibit stronger affective responses to evocative stimuli (e.g., Larsen, 2000).

Persistent and Situationally Expressed Personality and Other Characteristics

Regarding personality, there is a recognition that people respond similarly and somewhat consistently to similar situations or conditions but not the same at every time and/or situation; the intuitive notion is that personality is probabilistic. Thus, personality is most commonly conceptualized as those *relatively stable characteristics* of a person that make their behavior relatively predictable similar across time and situations, the common ways that persons adapt to the situations that they encounter in their lives. Such traits represent relatively enduring dispositions or vulnerabilities that are relatively distal to particular acts (e.g., Ward & Hudson, 1998).

Mischel (1968) was perhaps the first personality theorist to argue emphatically for the position that then personality and related behavior were too cross-situationally variable. He claimed that the view that personality traits as inherently uniform dispositions was unacceptable and that perceived consistency might reside in the consistency of situations that persons were exposed too. He described the "personality paradox," referring to the attempts to reconcile the "invariance and stability of personality with the equally compelling empirical evidence of the variability of the person's behavior across diverse situations…" (p. 1). Over time, via theory and research, a rapprochement or integration has been achieved in terms of reconciling the overall stability of personality dimensions and the manner or degree to which situations elicit sometimes different but relatively consistent responses. Buss (1979) pointed out that while the effect of personality is dependent on situations (and vice versa), biologically based personality predispositions act to create greater consistency in finding certain situations, so that individuals affect their exposure to situations by their "inclinations" to behave similarly across situations. Currently, psychological science recognizes that a significant degree of consistency in personality is best understood as patterns of behavioral response to variation in specific types of situations, with the recognition that individuals may behave "non-prototypically" as a function of distinct or unexpected properties of the environment or situation exerting influence on existing predisposing personality and EF factors. Individual differences in particular dispositions moderate a person's responses in particular situations or classes of situations; proximal situational factors are events that may elicit more transitory "states" that are manifestations of less apparent or unconscious individual predispositions or vulnerabilities and lead to particular behaviors under particular environmental influences.

In recent writings, Mischel and Schoda (1995, 1998, 2004) noted that when aggregating an individual's behavior on a given dimension over many different situations to estimate "true" characteristics of the individual, data shows that specific persons can differ significantly on certain dimensions given the particular characteristics of situations and still show stable overall individual differences. He has argued that individual differences would be expressed less in varied cross-situational behavior and more in distinctive (but still relatively stable) patterns of "if, then situation behavior relations," what he describes as contextualized, psychologically meaningful *personality signatures* (e.g., "he does A when X, but B when Y"). Such *if, then* patterns or *personality signatures* (or behavioral scripts) would be likely to become activated in relation to the perception of specific situations; those scripts would be similar across perceived similarities in particular situations but might vary when situations were perceived as different. Similarly, motivations/emotions and self-regulation/control are also contextual phenomena. Schultheiss et al. (2012) pointed out that goal-directed behavior is a joint product of the individual's internal need (e.g., sexual arousal or control) and situational incentives (sexual- or dominance-related cues) that allow the expression of this need, stating "A specific episode of motivated behavior is set in motion by the interplay of an internal need and the presence of suitable external incentive cues and persists until the individual reaches the desired reward" (p. 651). Internal states, such as deprivation or satiation, will affect the sensitivity to external cues, intensity, duration, and expression of appetitive behavior. The density, novelty, vividness, and other aspects of environmental cues may also affect both drivers and regulators of behavior, both on conscious and unconscious levels.

Similarly, to the contextual basis of other personality characteristics, the role or meaning of EF will vary across individuals and contexts. Individuals with more limited EF or less practiced EF are likely to find themselves in positions of increased stress exposure, to show increased stress reactivity and development of problematic coping strategies that in turn have greater potential to be stress generating. EF influences self-regulation in interpersonal contexts and thus enhances some individuals' vulnerability to interpersonal conflict or degrades social support. A person with well-developed reasoning and problem-solving skills faced with a particular situation may rely on minimal EF "skills," while possible effective adaptation to the same situation may require a person with less developed skills or cognitive limitations to rely more highly on EF "skills" or face adaptive "failure." Thus, the particular person's history and status of EF characteristics affect their reliance on more effortful and extensive use of EF skills. Further, common or routine situations may not typically demand much in the way of EF skills, while a novel or complex situation may identify that EF skills are insufficient and/or poorly practiced and lead to functional impairment or distress; as Suchy (2009) put it, "The better practiced the skills, the less reflective of EF they actually are" (p. 111; emphasis in original).

Personality and Self-Control (Including Self-regulation and EF) Are Significantly Genetically Determined

Over the past 30 years, an abundance of research has accrued demonstrating the heritability of most characteristics of human behavior, including personality. Livesley (Livesley, Jang, Jackson, & Vernon, 1993, 2006; Livesley & Jang, 2008) has noted that behavioral genetic research provides convincing evidence of extensive genetic influences on individual differences in normal and disordered personality. Heritability is typically estimated in the 40–60 % range, and environmental influences are largely confined to non-shared effects (unique experiences of the individual relative to siblings). Per Livesley, "heritability does not differ significantly across traits and heritability estimates are not appreciably influenced by method of measurement" (pp. 42–43). He further showed that there was extremely high congruence between genetic and phenotypic factor structures including the domains of emotional dysregulation, antisocial, and inhibition. Livesley suggested that the research indicated a few general genetic factors account for observed trait covariation, mostly via extensive pleiotropic effects (e.g., a single genetic entity influencing several distinct phenotypes or behavioral expressions). That is, a particular individual may manifest several different mental disorders because of a single genetic contribution, or a small set of shared genetic contributions, thus leading to the common phenomenon of psychiatric comorbidities. Livesley also noted that environmental influences on personality traits, while similar in magnitude to genetic influences, most probably act to consolidate the pleiotropic effects. Thus, genetic factors interact, most typically in an exacerbating or aggravating way, with environmental factors. That is, heritable personality dimensions are not completely independent and are more commonly compounded or exaggerated by varied environmental effects.

Factor analysis of studies of comorbid mental disorders have repeatedly revealed two broad dimensions accounting for systematic covariance among disorders (e.g., Krueger, 1999; Krueger et al., 2001). The first dimension is an internalizing factor (representing fear, anxiety, and mood disorders). The second dimension is an externalizing factor representing traits and characteristics associated with antisocial personality and substance abuse disorders. As a result of these and other behavioral genetic studies, these externalizing psychopathological conditions appear to have strong biological, genetic links to one another; strong evidence exists of a common externalizing liability for a "family" of antisocial and related disorders of dysregulation. Relative to externalizing proneness, two subdomains have been identified as particularly relevant: *disinhibition* (including traits such as impulsivity, sensation-seeking, and unconventionality) and a subtype of *negative affectivity* (anger, suspiciousness, and aggression as distinguished from depression and anxiety). Krueger and colleagues have termed this collection of antisocial personality characteristics and disorders, substance abuse/dependence, and attention-deficit hyperactivity disorder (ADHD) as "externalizing spectrum disorders" (ESD) which later work found was a continuous genetic liability (e.g., Markon & Krueger, 2005). In their review of a number of recent twin studies, Krueger et al. (2002) reported very high heritability (80 %) of externalizing proneness (e.g., disinhibition) as accounting for the shared variance among antisocial and substance abuse disorders; Egan (2011) found similar results. Kendler, Aggen, and Patrick (2012) identified that from a genetic perspective, two dimensions of genetic risk reflecting aggressive disregard and disinhibition influence the dispositions related to antisocial behavior/personality. Similarly, dimensions of Fearless-Dominance and Impulsive-Antisociality showed genetic covariation with externalizing psychopathology (Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005). Other research also demonstrates that impulsivity (disinhibition) appears highly heritable; genetic factors account for between 44 and 56 % of variation in low self-control. Niv et al. (2012) demonstrated the heritability and longitudinal stability of impulsive tendencies across adolescence, with additional genetic and environmental effects also coming into play at later ages. Utilizing a longitudinal study of youth, Beaver, Wright, DeLisi, and Vaughan (2008) identified that genetic factors accounted for between 52 and 64 % of the variance in self-control, that self-control was relatively stable and was determined almost exclusively by genetic factors. Relatedly, Barnes and Boutwell (2012) found that genetic factors accounted for 97 % of the stability in offending behavior over a 13-year span from adolescence to adulthood. In other words, when antisocial conditions are extreme and stable, genes are disproportionately responsible. Boutwell and Beaver (2010) showed that once genetic factors in self-control were statistically controlled, the effects of parental socialization were minimal, with the exception of associative mating. Livesley et al. (1993) found that narcissism (most specifically the vulnerable narcissistic dimension) had a particular high heritability; other dimensions of personality that had heritability coefficients greater than 0.5 were callousness, oppositionality, and social avoidance. Torgersen et al. (2000) determined that the heritability for ASPD, BPD, and NPD were approximately .70 and the effects of shared/familial environmental effect was zero. Similarly, Trull and Durrett (2005) also found that when symptoms of all the personality disorders were factor-analyzed, a unidimensional factor reflecting dissociality/psychopathy emerged. Egan (2011) reported an effect size of .5 for heritability of criminal offending, *independent* of the presence of a personality disorder. Nestor (2002) noted that

commonly SAB are also accompanied by distinct comorbid conditions, specifically Cluster B disorders (particularly ASPD), in part due to shared genetic liability. Hodgins (2007) noted several studies indicating that callous-unemotional traits in youth as well as psychopathic traits in adults showed high heritability. Multiple studies have also found a very strong heritable component to EF (e.g., Rothbart, 2007; Bell & Deater-Deckard, 2007; Coolidge, DenBoer, & Segal, 2004; Friedman et al., 2008). Per Friedman et al. (2008), central executive functions are correlated because they are influenced by a *highly* heritable (99 %) common factor that goes beyond general intelligence or perceptual speed; Young et al. (2009) reported similar findings. This combination of general and specific genetic influences places executive functions among the most heritable psychological traits. Similarly, low self-control has been demonstrated to have a significant genetic or heritability effect; Bezdjian et al. (2011) referenced studies showing that even after controlling for multiple demographic and environmental factors, heritability accounted for over 50 % of the variance in self-control. Conversely, Young et al. (2009) reported behavioral disinhibition (e.g., deficits in self-control) as having a highly heritable genetic liability of .82 and concluding that collective results provide compelling evidence that the etiology of behavioral disinhibition is primarily genetic and that the primary mechanisms of action were deficits in cognitive response inhibition.

In addition to a pure strong genetic diathesis, developmental and situational contexts determine the degree to which such a genetic liability is expressed. Particular genetic influences (e.g., impulsivity, hyperactivity, lower intelligence) increase the odds of exposure to particular (non-shared) environments or situations and lead to aggravation (and sometimes mitigation) of a particular dimension of personality. Thus, children high in impulsivity and disinhibition are often born to a parent with similar difficulties or who for other reasons are not effective at encouraging the development of self-control or prosocial attitudes; there is "goodness of fit" for preservation and exacerbation of those characteristics but poor fit for effective modification of them (e.g., Lykken, 1995). At the same time, Buker (2011) reviewed research indicating that most parenting measures showed small effects once measures of EF were covaried and that psychopathological personality features captured a significant amount of variance in self-control. Krueger et al. (2002) pointed to the likely development and expression of a self-reinforcing cycle, where impulsivity and antisocial behavior (substance use) leads to increases in disinhibition/novelty-seeking and continued antisocial behavior and substance use. Further, genetic or evolutionary perspectives suggest that persons who are "competitively disadvantaged" in terms of obtaining resources through socially acceptable means (e.g., agreeableness and higher intelligence) and are characterized by high degree of impulsivity and sensation-seeking may be more likely to engage in antisocial behavior as a means of obtaining those resources. While heritability is a prominent factor in personality and related conditions, it is important to appreciate that a key aspect of the power of such biological determinants bias may be understood to lie primarily in their ability to limit or restrain the acquisition of alternative personality dimensions rather than to simply determine a particular one.

In summary, there are several key aspects of personality, self-control, and EF that are important to consider in understanding their nature and expression. First, all three domains are dimensional in nature, and persons vary in the degree to which a particular characteristics is generally present. Second, personality and related conditions apparently function in line with a "dual system." There are aspects of motivation and emotions that are particular "hot," visceral, and prepotent and lend themselves to more rapid, automatic, and largely subconscious processing. In addition, expression toward proximal goals occurs or does not in the relative absence or presence of "cool," largely cognitive processes involving attention-demanding, analysis, and conscious effort relative to the pursuit of less immediate goals. Third, much of motivation, emotion, cognitive content, and processing (including self-regulation and EF) occurs largely out of individual awareness/attention or is "unconscious." Fourth, the expression of personality and related conditions is contextual; specific aspects of those conditions will only be apparent in particular contexts and at particular times; thus, particular behaviors (e.g., select sexual behaviors) will only occur with the juxtaposition of a set of circumstances involving stimuli of various specificity, unique personal states, and relatively permissive environments. Fifth and finally, personality and related conditions have clearly been demonstrated to be largely genetic and heritable in their etiology and self-enhancing in their effects on varied environments. Thus, there may be relatively little malleability for much of what personality and related conditions contribute to sexual offending.

Personality and Related "Disorders"

Even with the acknowledged influence of situational context, personality traits are still commonly viewed as enduring patterns of perceiving, relating to, and thinking about oneself and one's environment across a range of social and personal contexts. There is increasing scientific consensus that the structure and elements of normal and "abnormal" personality are essentially the same; thus, there is a bipolarity of maladaptive-adaptive personality characteristics. Pathological or abnormal personality dimensions are understood as typically more extreme (e.g., more intense, more frequent, longer duration, and typically negatively valenced) and functionally maladaptive (e.g., resulting in one or more areas of impairment) variations on continuums of a "primary" personality dimensions.

Thus, a "personality disorder" has come to be viewed as a collection of a multiple intense, persistent, or pervasive personality dimensions (or traits) that lead to personal distress and/or functional impairment in major life domains (including harm to others). Since 1980, per DSM-III, the DSM-IVs, and the current version of the DSM-5, a personality disorder has been defined as an enduring pattern of inner experience and behaviors that deviates markedly from the cultural norms or expectations, is pervasive and inflexible, has an early onset (e.g., in adolescence or early adulthood), is stable over time, and leads to impairment. The enduring pattern of inner experience and behaviors must be manifest in two or more of the following areas: cognition (ways of perceiving and interpreting self, other people, and events), affectivity (range, intensity lability, and appropriateness of emotional response), interpersonal functioning, and impulse control. Individuals with personality disorders are typically unable to respond flexibly or adaptively to the changes in the hands of life. Rather they create and exacerbate stress by provoking aversive reactions in others; by failing to make optimal social, occupational, or other life decisions; and by creating situations that are problematic and pathogenic. Of great significance, per DSM-5, "the characteristics that define a personality disorder may not be considered problematic by the individual (i.e., the traits are ego-syntonic)."

The DSM-IVs (and the recent DSM-5) enumerated 10 specific personality disorder categories. Various issues have been raised about the particular categories of personality disorder associated with the DSM-IV, recent DSM-5, and ICD. As Trull (2005) noted: "Most would agree that ten official personality disorders presented in the DSM-IV-TR do not represent all forms of personality pathology that the clinician is likely to encounter and to treat…" (p. 172). Widiger and Trull (2005) pointed out that the current and proposed criteria sets for DSM personality disorders were overly restrictive. Widiger and Simonsen (2005) identified a number of additional issues regarding the current categorical system of classification of personality disorders: excessive comorbidity (many patients meet diagnostic criteria for more than one personality disorder), inadequate coverage of personality pathology (as many as 60 % of patients seeking treatment manifest maladaptive personality presentations that do not fit well under current DSM personality disorder categories), and limited scientific basis exists for the specific boundaries or trait thresholds for specific personality disorder diagnostic categories. In a meta-analysis, Verheul and Widiger (2004) found that the relative prevalence of PD NOS ranged from 21 to 49 %, and in nonstructured interview studies, it was the most commonly used personality disorder diagnosis. Similarly, the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) initially examined the co-occurrence of most the ten DSM-IV-TR personality disorders in the US population, using face-to-face interviews covering this set of seven disorders in 2001–2002 ($N = 43{,}093$; e.g.,Grant et al., 2004). The initial analysis of the NESARC study found that all of these personality disorders were related or overlapped with one another (Grant, Stinson, Dawson, Chou, & Ruan, 2005); in particular, personality disorders within DSM-IV personality disorder clusters (groupings of personality that were believed to have descriptive similarities) were particularly correlated or comorbid within three clusters. Not surprisingly, personality disorder not otherwise specified (PDNOS) was the most commonly assigned personality disorder diagnosis.

Of particular importance, the DSM-5 (APA, 2013) recognized the various problems related to a categorical system of classification of mental disorder and, in particular, personality disorders. They noted that a categorical approach did not capture the significant clinical reality of overlapping or shared symptoms across more narrow diagnostic categories and the heterogeneity of conditions captured within specified categories. As a result of this recognition, while maintaining a categorical approach to classifying personality disorders, the DSM-5 also provided an alternative DSM-5 model for personality disorders where personality disorders are characterized by two primary dimensions: (1) impairments in personality function (self and/or interpersonal) and (2) one or more pathological personality traits. While recognizing the validity and the significance of a dimensional approach to organizing and classifying mental disorders, including personality disorders, the DSM-5 elected to maintain a categorical classification of personality disorders as a "bridge" from past to updated diagnostic practices. Select professionals continue to advocate for the categorical model of DSM personality disorders (e.g., Zimmerman, 2011). Further, in a more recent and methodologically more sophisticated study of NESARC data, Harford et al. (2013) indicated that the DSM-IV diagnostic criteria provided a good fit for an underlying latent dimension for each personality disorder.

In addition to the disorders in the DSMs, psychopathy (PP) has come to be viewed as a particular personality construct [historically evaluated with the Psychopathy Checklist-Revised (PCL-R; Hare, 1991; 2003a)] that both dimensionally and categorically has demonstrated strong relationships with criminal and violent behavior (e.g., Hemphill et al., 1981a, 1981b). Psychopathy or psychopathic traits appear to reflect a blend of egocentrism or narcissism, sensation-seeking, and callousness leading to irresponsible, antisocial behavior; it represents a blend of so-called Cluster B personality disorders (the "erratic, unstable" cluster), and it identifies a particular subgroup of persons with increased proneness to criminal, violent, and sexual offending. Much of the current understanding of psychopathy, as collections of maladaptive traits and, more extremely, as a personality disorder, has been based on research utilizing the PCL-R. Hare's research (1991, 2003b) found that the measured construct of psychopathy was composed of two primary "factors." Factor 1 One (F1) reflected a more narcissistic or "callous aggressive" variant of personality,

consisting of traits such as self-centeredness, egocentric, callous, and/or the remorseless use of others. Factor 2 Two (F2) was shown to be related to a social deviance or chronically and unstable and antisocial lifestyle, including early onset of antisocial behavior, more diverse criminal behavior, and a low tolerance for frustration. In 2003 (a), Hare identified that each factor was compromised of two facets: interpersonal and affective facets comprised the interpersonal/affective factor, while impulsive lifestyle and antisocial behavior comprised the social deviance factor. Dimensionally, Hare and Neumann (2008) reviewed the results of various analyses of approximately 7,000 varied offenders and forensic patients, while Neumann and Hare (2008) replicated the four-factor structure in a randomly selected community sample as well as identified a "superordinate" factor of psychopathy. Neumann, Hare, and Newman (2007) also demonstrated that the four dimensions/facets of psychopathy are so significantly interrelated that when structural equation modeling was applied across diverse samples of over 7000 individuals, results showed that the four first-order facets could be explained by a single superordinate cohesive "super factor."

Other research efforts have also attempted to identify the critical elements of psychopath or a psychopathic personality. Alternately, Cooke and Michie (2001) argued for a three-factor model, based on the notion that an antisocial or criminal factor is a concomitant or consequential to "true" psychopathic traits and not a core factor of the theorized construct of psychopathy. The three factors that they identified were *arrogant and deceitful interpersonal style*, *deficient affective experience*, and *impulsive and irresponsible behavioral style*. Hall, Benning, and Patrick (2004) and then Patrick, Fowles, and Krueger (2009) found similar three-factor models; Patrick et al. identified a triarchic model emphasizing three-dimensional constructs: *meanness*, *boldness*, and *disinhibition*. Sellbom and Phillips (2013) showed that these three dimensions captured a substantial amount of variance in self-report measures of psychopathy.

Lilienfeld has examined self-reported psychopathic characteristics in predominantly community samples. His research (e.g., Lilienfeld & Fowler, 2006) has identified eight replicable factors associated with these perspectives on psychopathy (fearlessness, cold-heartedness, Machiavellian egocentricity, social potency, impulsive nonconformity, carefree non-planfulness, stress immunity, and blame externalization). Utilizing self-report instruments, other investigators have reported the identification of two common primary dimensions of self-reported psychopathic traits: fearless dominance and impulsive antisociality (e.g., Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Witt, Donnellan, Blonigen, Krueger, & Conger, 2009). As Hare and Neumann (2007) pointed out, the interpersonal/affective and the social deviance factors of the PCL-R appear to match the "fearless dominance and "impulsive antisociality" factors identified via personality self-report.

Given the available theory and science, it seems clear that the nature of psychopathy is complex and multifaceted. The best evidence is that psychopathic conditions are heterogeneous as Lykken (1995) and others have suggested and that subtypes of psychopathic individuals exist defined by relative emphasis on different dimensions identified by different investigations and investigators. In reviewing this available work, it seems clear that there is a significant degree of overlap and consistency across the different research efforts and models for subtypes of psychopathy. Skeem et al. (2003, 2007) has advocated that it makes considerable sense to conceptualize that there are variants of psychopathy or psychopathic personalities. More specifically, Skeem et al. (2007) have suggested that relative to primary psychopaths, secondary psychopaths had greater trait anxiety, fewer psychopathic traits, and comparable levels of antisocial behavior. Of note, Ross, Benning, and Adams (2007) showed that symptoms of deficient EF were "endemic" to secondary psychopathy but not primary psychopathy. Hicks, Markon, Patrick, Krueger, and Newman (2004) identified two subtypes of psychopathic individuals: *Emotionally stable* psychopaths were marked by low trait anxiety, positive emotionality, and more goal-directed behavior (e.g., primary psychopaths), whereas *aggressive* psychopaths were marked by high negative emotionality, high disinhibition, and social affiliation (e.g., secondary psychopaths); Poythress et al. (2010) found similar groups. Across validation variables, secondary psychopaths manifested more borderline personality features, poorer interpersonal functioning (e.g., irritability, withdrawal, poor assertiveness), more symptoms of major mental disorder, and significantly poorer clinical functioning than primary psychopaths. In contrast, lower anxiety and greater assertiveness/dominance characterized the primary psychopaths. These results were similar to those of Blackburn (2009), who found four profile classes: *primary psychopaths* (impulsive, aggressive, hostile, extraverted, self-confident, low to average anxiety), *secondary psychopaths* (hostile, impulsive, aggressive, socially anxious, introverted, moody, lower self-esteem), *controlled psychopaths* (defensive, controlled, sociable, very low anxiety, and high self-esteem), and inhibited *psychopaths* (shy, withdrawn, controlled, moderately anxious, low self-esteem); these last two classes are considered more "well-socialized" psychopathic individuals. More recently, Eaton et al. (2011) showed that BPD was effectively an externalizing disorder with an additional component of distress; thus, some persons with BPD appear likely to be best understood as secondary psychopaths (e.g., emotionally reactive and dysregulated).

Paulhus and Williams (2002) initially identified a "dark triad" of psychopathy, narcissism (dominance, grandiosity, and superiority), and Machiavellianism (interpersonal strategies that advocate self-interest, deception, and manipulation); they identified each element of the dark triad as associated with antisocial behavior. From the five-factor model, persons

are disagreeable, extraverted, open, and have high self-esteem along with low levels of neuroticism and conscientiousness score high on the dark triad; they extract what they want from their environment via an exploitive approach (e.g., Jonason et al. 2010). In another study, Jonason and Trost (2010) found that both psychopathy and Machiavellianism were correlated with low self-control, a tendency to discount future consequences, and high rates of attention-deficit disorder. They stated: "These systems are likely to leave the person with a fast life strategy to feel as though they just cannot control themselves, although it is unlikely they want to" (p. 614). Persons possessing elevated levels of the characteristics that make up the dark triad are likely to be selfish, possess a grandiose sense of importance, and feel an increased sense of entitlement. Further, these individuals are often preoccupied with dominance and power and will use aggressive tactics such as manipulation and exploitation to get whatever it is that they feel that they deserve. Johnson and Tost (2010) provided evidence that "the short-term exploitive strategy that characterize the dark triad is supported by a system of limited self-control, a tendency to discount future consequences, and attention deficit symptoms" (p. 614). "They noted that these systems "are likely to leave a person feeling as though they just cannot control themselves, although it is unlikely they want to" (p. 614). Thus, those individuals with significant elements of the dark triad are particularly prone to antisocial behavior. More recently, Buckels et al. (2013) suggested adding sadism to compose a Dark Tetrad of personality. They discussed "everyday sadism" as a callous tendency to enjoy the suffering of others, which is associated with antisocial outcomes. They found "Only sadists increased the intensity of their attack once they realized that the innocent person would not fight back. Sadists were also the only dark personalities willing to work (i.e., expend time and energy) to hurt an innocent person. Together, these results suggest that sadists possess an intrinsic appetitive motivation to inflict suffering on innocent others—a motivation that is absent in other dark personalities. Inflicting suffering on the weak is so rewarding for sadists that they will aggress even at a personal cost" (p. 9).

Personality-Related Conditions: Criminal, Violent, and Sexual Offending

Personality Traits and Disorders

The role of disorders of maladaptive personality traits and related conditions has long been recognized as prominent factors in criminal behavior (e.g., law-violating acts) and violence toward self and others. In particular, personality and related factors appear important given the delimited group of individuals who persist or repeat violent behavior. First, most "antisocial individuals" do not become involved in the criminal justice system; only 50 % of individuals in the USA diagnosed with antisocial personality disorder (ASPD) have an official record (history) of some criminal offending (e.g., Robins & Regier, 1991). In contrast, essentially, it is only a relatively small group of individuals who engage in repeated criminal behavior and an even smaller group who engage in repeated violent behavior over time. In prominent studies, typically 5–6 % of criminal offenders were found to be responsible for 50 % of recorded crimes (e.g., Farrington, Ohlin, & Wilson, 1986). Approximately only 23 % (Coid, Yang, Roberts et al., 2006) to 33 % (De Brito & Hodgins, 2009a) of persons with ASPD are characterized by repeated acts of violence. Black (2011) found that while only 35 % of recently incarcerated inmates met the criteria for ASPD in a US sample, those with ASPD showed a greater frequency of three or more criminal convictions and prior mental health treatment. It is notable that approximately 70 % of persons with ASPD who were violent had engaged in instrumental—as opposed to reactive—aggression; that is, their aggression had some degree of premeditation as opposed to being a result of simply a situational provocation (DeBrito & Hodgins, 2009a).

Related to the finding that it is a relatively small group of persons who perpetrate the majority of any violent behavior, the extant empirical literature clearly supports a finding that there is a subgroup of *persistent* antisocial offenders. Moffit's (1993) life-course-persistent antisocial behavior group were persons who engaged in repeated or episodic antisocial behaviors after adolescence and constituted a unique group of persons; they persisted in and fail to desist from violence and crime. Generally, it appears that those who show earlier onset of antisocial behavior commit the majority of crimes and are more likely to continue to do so throughout their lives. As a group, they appeared to be one with a strong genetic diathesis toward antisocial behavior. Cross-sectional studies suggest the prevalence of antisocial behavior as expressed in the community peaks between 35 and 40, suggesting the possibility of remission for some antisocial individuals. However, the few longitudinal studies available indicate substantial variation in the persistence of antisocial behavior, particularly violent behavior. In a 30-year follow-up of antisocial personality disordered individuals, Guze (1976) found that 72 % of incarcerated male felons were still classified as meeting the criteria for ASPD by interview at follow-up. Robins et al. (1966) found that while 12 % had remitted, 27 % had improved but not remitted and fully 60 % of persons previously diagnosed with ASPD were unimproved. Black, Baumgard, and Bell (1995) in a long-term follow-up of males with ASPD showed while antisocial men had reduced their impulsive behavior and to some extent their criminality, they continued to have antisocial and/or impulsive issues leading to significant interpersonal and other problems throughout their lives. Several smaller studies have showed that while a minority of persons with ASPD were either

"remitted" or "improved," a significant proportion of persons remained criminally active throughout follow-up periods (e.g., Black et al., 1995). McLean and Beak (2012) identified several factors associated with a persistent violent offending career: an offending career that begins before the age of 14 (early onset) and previous violent crimes. A longer criminal career was also associated with a greater frequency of violent offending. DeLisi and Vaughan (2007) demonstrated that "career" criminals had significantly lower levels of self-control. They found that those who scored just one standard deviation above the mean on a measure of self-control had five times the odds of manifesting career criminality and that low self-control distinguished career criminals with ROCs between 74 and 87 %. It is notable that Moffit (1993) identified persistent offenders as most likely to be individuals with significant inherited cognitive and emotional difficulties that later interacted with varied criminogenic situations; thus, persistent antisocial behavior appears to have a considerably stronger degree of heritability than that which is time-delimited and typically has a much earlier age of onset. In summary, a relatively small portion of persons with ASPD are detected by the criminal justice system, violent behavior distinguishes a select group of persons with ASPD, and only a more select group of offenders persist in violent criminal behavior over time.

Eysenck (1977) theorized that low arousal capability and low boredom (leading to a need for excitement) in the relative absence of conditioning for rule adherence by parents and schools were critical in the causation of crime. In A General Theory of Crime, Gottfredson and Hirschi (1990) argued that the central underlying criminal propensity is low self-control or difficulty delaying short-term gain, reward, or pleasure at the expense of longer-term interests. Persons with deficient self-control or a greater degree of disinhibition tend to forego consideration of the long-term costs associated with engaging in antisocial and/or deviant acts, provided an opportunity to offend is present. Per Gottfredson and Hirschi, "people who lack self-control will tend to be impulsive, physical (as opposed to be mental) risk-taking, short-sighted, and nonverbal, and they will tend therefore to engage in criminal and analogous acts" (p. 90). Per Buker's (2011) summary of Gottfredson and Hirschi's theory, crimes (a) are stimulating, dangerous, or thrilling; (b) require little skill or planning; (c) result in pain to or discomfort of a victim; (d) provide immediate, easy, and simple satisfaction of desires; and (3) supply few or insufficient long-term benefits. Persons with low self-control were predisposed to criminal activity due to their impulsivity, risk-seeking, "bad" temper, and preference for goals/tasks that do not require persistence, low cognitive and academic skills, self-centered nature, low empathy and short time horizons. In a modification to his earlier self-control theory, Hirschi (2004) suggested that the *prevalence* and *salience* of varying social bonds are likely to be considered as "costs" of offending at the time of offending and that both short- and long-term implications for social bonds may exert an effect on the degree of self-control. Given difficulties in delaying gratification, offending behaviors took place in the relative absence of concern over possible future negative consequences. Pratt and Cullen (2000) conducted a meta-analysis of self-control theory using 21 studies and found effect sizes from of .47–.58, indicating a moderate consistent effect of self-control and general criminal behavior. Specifically, they showed that approximately 73 % of offenders were characterized by low self-control relative to 50 % of non-offenders, indicating self-control deficit. DeLisi and Vaughan (2007) showed that persons scoring just one standard deviation below the mean on a self-control measure were well identified as career criminals; low self-control was by far the best predictor of chronic criminality.

Alternately, following Zukerman (1994), Burt and Simons (2013) suggested that thrill-seeking or risk-taking represents an independent personality predisposition that is equally prominent relative to self-control in criminal behavior; individual differences exist relative to the degree of "pleasure" or reward that (versus "pain") they anticipate receiving from risky acts (e.g., Lykken, 1995). Such preference for risk is viewed as a distinctive motivating factor unrelated to the ability or intent to consider the consequences of one's behavior; the intense reward effects of risk acts can outweigh the consideration of potential negative consequences for persons high on thrill-seeking. Thus, risky or thrilling behavior can involve a substantial amount of planning and fantasy (as opposed to being simply impulsive or a result of low self-control). A related issue is that persons may be characterized by individual differences in their threshold for and breadth of thrill-seeking stimuli, with some manifesting broader and others more narrow pleasure preferences. Particular personality disorders, as specified categories of particular combinations of personality traits, have been implicated in general criminal offending.

Krueger et al. (1994) showed that specific personality dimensions or traits were linked to criminal behavior. Specifically, they found that negative emotionality (e.g., higher stress reactivity, anger, grievance, adversarial interactions) and low constraint (impulsive, danger seeking, rejecting of conventional values) were related to antisocial behavior, as well as social alienation, lack of social closeness, and risk-taking. They also found that particularly antisocial individuals (e.g., those who engaged in a wide variety of criminal acts) exhibited personality profiles that were characterized by particularly strong rejection of rational values, thrill-seeking, impulsivity, aggressive behavior, lack of sociability, and feelings of alienation. Tackett and Krueger (2011) identified several factors related to the ESD; two included impulsive irresponsibility and callous aggression. Krueger (2006) pointed out that negative emotionality paired with high levels

of disinhibition lead to more general externalizing behavior, while substance use and antisocial behavior problems were both related to an unconstrained, impulsive personality style. In a later study of the self-report approximately 1800 adult (including both correctional and community samples), Krueger et al. (2007a) created a hierarchical, quantitative model of the externalizing spectrum disorders (ESD), including ASPD. The following are among the 23 facets identified: aggression (relational aggression, physical aggression, and destructive aggression); excitement-seeking and boredom proneness; problematic impulsivity, impatient urgency, and planful control; rebelliousness (rule violations/disobedience); irresponsibility and dependability; honesty; fraud; criminal theft; empathy; blame externalization; alienation (from others); and various substance use dimensions (alcohol use, alcohol problem, marijuana use, marijuana problem, drug use, drug problems). In a more recent research, Carragher et al. (2013) demonstrated that attention-deficit hyperactivity disorder (ADHD) was a component of the larger continuous and dimensional liability to externalizing disorders in adulthood including ASPD and alcohol/substance use disorders. In addition, Eaton et al. (2011) showed that BPD was related to ESD liability as well as a particular sensitivity to an aspect of internalizing disorders, namely, distress.

Violence (the use of physical force to harm or injure someone) or aggression (violent behavior motivated by negative affect such as anger), which includes many sexual offenses, is a particular set of criminal acts. Most persons who commit criminal acts do not engage in violent behavior. Violent behavior is typically dichotomized as instrumental violence (goal-directed and/or at least somewhat anticipated or planned violence that occurs in an attempt to obtain a goal or goals, including simply "harming" another) and reactive violence (violence that occurs in response to provocation and arousal of hostility, which is often expressive violence ventilating anger or similar affective states) (e.g., Cornell et al., 1996). In addition, there are mixed forms of violence, for example, when an instrumental act encounters resistance experiences as provocation.[3] Megargee (e.g., 1976, 2011) offered a framework for conceptualizing "the algebra of aggression" or violence toward others; it suggests factors that determine whether or not a person performs a given aggressive act against a specific target at a particular point in time.

> …In this often unconscious bargaining process or 'response competition', the behavior that offers the most satisfactions at the least cost will … [occur]. The 'reaction potential, or net strength of an aggressive response, is determined by balancing the factors promoting each response against those deterring it. (p. 5)

[3]Cornell et al. (1996) developed a coding scheme that included planning, goal-directedness, provocation, arousal, severity of violence, relationship to victim, intoxication, and psychosis.

Megargee identified three primary factors related to "fostering" aggressive behavior. *Intrinsic instigation to aggression* is the conscious or unconscious drive to attack, injure, or harm someone or to damage something (such factors were seen as anger, hostility, rage, or hatred: angry aggression). *Extrinsic instigation leads to instrumental aggression* in which aggression is used as means of achieving ends other than simply injuring the target; extrinsic goals include dominance power, self-esteem, and acquisition or the accomplishment of personal objectives. Finally, the third personal factor that increases the relative potential of aggressive responses is *habit strength*, the extent to which aggressive acts have been reinforced in the past via pleasure or satisfaction. For Megargee, the stronger the habit strength for particular aggressive acts, the more likely that similar acts will be enacted again in the future. In addition, Megargee noted that both additional personal and situational factors, particularly "internal inhibitions" and "pragmatic concerns," could deter aggression. Conversely, a lack of such inhibitions (e.g., a lack of empathy, objectification, and so on) and/or an insensitivity or indifference to pragmatic concerns (such as negative consequences or low probability of achieving the goals of violent behavior) can further facilitate or foster aggressive or violent responses. Megargee emphasizes that the potential for violence is multifactorial and complex, that violent offenders are likely to be heterogeneous, and that violent acts will occur variably or episodically as function of relative variability in factors "fostering" or "inhibiting" aggression, habit strength, and situational factors.

Litwack and Schlesinger (1987) noted that repetitive violence was "more likely to stem from relatively enduring personality traits" (p. 211) than from momentary crises and other events, thus indicating the relative significance of maladaptive personality and likely personality disorders. Nestor (2002) examined the relationship between personality dimensions and violent behavior and identified four as fundamental to that relationship: impulse control, affect regulation, threatened egotism or narcissism, and paranoid cognitive personality style. In a systematic review, Yu, Geddes, and Fazel (2012) reported that there was a substantially increased probability of a violent outcome for persons characterized by any personality disorder in the general population as well as for the subset of known offenders. Meta-regression indicated that the risk of offending was increased among persons with antisocial personality disorder (odds ratio of 12.8), particularly for such persons who were already identified as offenders (e.g., had a history of antisocial and violent behavior). Of such persons, 666 % were criminal recidivists. [Of note, Yu et al. found that young age was not a risk factor for violence among samples of individuals with personality disorders.] Widiger and Trull (1994) noted that violent behavior is a "defining feature" for both antisocial personality disorder and borderline personality disorder

(while noting that antagonistic, hostile traits are evidence in eight of the ten DSM personality disorders). Generally, ASPD increased the relative risk of being convicted of a violent crime by a factor of 7 for males; inmates with ASPD generally showed significantly higher scores for violent offenses than those without antisocial personality disorder (DeBrito & Hodgins, 2009a). Maladaptive Personality disorders identified as early as in adolescence (including narcissistic, paranoid, and passive-aggressive traits) were independently associated with risk for violent acts both during adolescence and eagerly adulthood (Johnson et al., 2000). Widiger and Trull suggested that a diagnosis of either antisocial personality disorder (ASPD) or borderline personality disorder (BPD) is a significant risk factor for violent, aggressive behavior, particularly in persons with a prior history of such behavior. Similarly, Blackburn and Coid (1999) have also noted that the more "psychopathic" subgroup of persons with ASPD were responsible for a disproportionate amount of both detected and undetected violence. In addition to ASPD, various studies have shown that borderline personality disorder (BPD) is associated with violent behavior (e.g., Black, Gunter, Allen et al., 2007; Newhill, Eack, & Mulvey, 2009). Howard (2009) showed that persons who met criteria for either (or both) ASPD or BPD were characterized by high levels of impulsive sensation-seeking and aggression hostility, indicating a tendency to act out when in a state of heightened affect (including both positive and negative emotional/motivational states). That is, in addition to anger, experiencing increased positive affect leads to a strong desire to maximize a state of excitement or thrill-seeking anger (affectively positive affect) via acting out; the process of acting out on such motivation (e.g., via violent behavior) is reinforcing itself, in addition to the outcome. Narcissistic personality disorder (NPD) is also strongly related to criminality in general and violence in particular (e.g., Johnson et al., 2000; Esbec and Echeburua, 2010). Esbec and Echeburua identified: "Narcissism is a frequent trait in all types of violence subjects, especially antisocials and psychopaths, who usually give preference to their desires over the needs and rights of the others…" (p. 256). Thus, most existing research identifies dual dimensions as related to violent behavior, one a sensation-/thrill-/risk-seeking dimension that presses for action against others and the other reflecting deficiencies in self-regulation, involving a lack of consideration of consequences for self/other and related deficits in the management of impulses or urges for action.

Per meta-analyses of the PCL-R and its relationship to criminal recidivism, results have demonstrated that the PCL-R was consistently among the best predictors of recidivism, whether utilized as a continuous or categorical measure (Hemphill, Hare, & Wong, 1998; Hemphill, Templeman, Wong, & Hare, 1998). In fact, surprisingly, *survival analyses for "medium" and "high" PCL-R groups were not clearly differentiated from one another; both of these groups showed similar recidivism rates and patterns*. More recently, Leistico et al. (2008) conducted a meta-analysis involving 95 studies involving almost 16,0000 institutionalized or incarcerated persons. They found that higher PCL total, Factor 1 and Factor 2 were each moderately associated with increased antisocial behavior. Rice and Harris (1997) showed that sexual recidivism rates for sex offenders were substantially higher among identified psychopaths. They found that violent recidivism rates for five years after release were 85 % for persons classified as psychopaths by record review (e.g., cutoff score of 25) based upon survival analysis; this rate was approximately 50 % above that of non-psychopaths. The PCL-R score was typically the strongest (or one of the strongest predictors) of violent and sexual recidivism (e.g., Hare, 2003b; Hanson & Morton-Bourgon, 2004).

In addition, it is important to emphasize that while a large number of persons commit an act of violence and other criminal acts, essentially, only a relatively small group of individuals engage in repeated criminal behavior and an even smaller group engage in repeated violent behavior over time. In prominent studies, typically 5–6 % of criminal offenders were found to be responsible for 50 % of recorded crimes (e.g., Farrington et al., 1986). Utilizing a national representative sample, Vaughan et al. (2011) found that while 66 % of NESARC sample showed little involvement in criminal behavior, there was a low substance use/high antisocial behavior group (21 %) and a high substance use/moderate antisocial behavior group (8 %). As previous researchers had shown, only 5.3 % of the sample was identified as a "severe" group, characterized by pathological involvement in more varied and/or more intensive forms of antisocial/externalizing behaviors and extensive psychiatric disturbance. O'Driscoll et al. (2012) showed that released prisoners with a personality disorder (the majority "mixed" or meeting criteria for more than one personality disorder) showed a 26 % increase in the risk of criminal reoffending over a 5-year follow-up; Grann, Danesh, and Fazel (2008) reported similar findings. More specifically, only 20 % (Coid et al., 2006) to 33 % (DeBrito & Hodgins, 2009a) of persons with antisocial personality disorder are characterized by repeated acts of violence. Approximately just 50 % of individuals diagnosed with ASPD have an official record (history) of some criminal offending (e.g., Robins et al., 1991); most persons with ASPD are not detected for criminal or violent offending. Black (2010) found that while only 35 % of recently incarcerated inmates met criteria for ASPD in a US sample, those with ASPD showed a greater frequency of three or more criminal convictions and prior mental health treatment. Similarly, it is notable that approximately 70 % of persons with ASPD had engaged in instrumental—as opposed to reactive—aggression; that is, their aggression had some

degree of premeditation as opposed to being a result of a situational provocation (De Brito & Hodgins, 2009a).

Related to the finding that it is a relatively small group of persons who perpetrate the majority of violent behavior, the extant empirical literature clearly supports a finding that there is a subgroup of *persistent* antisocial offenders. Moffit's (1993) life-course-persistent antisocial behavior group appeared to be one with a strong genetic diathesis toward antisocial behavior. That group of persons who engage in repeated or episodic antisocial behaviors after adolescence constituted a unique group of persons with a history of such behaviors; they persist and fail to desist. Generally, it appears that those who show earlier onset of antisocial behavior commit the majority of crimes and are more likely to continue to do so throughout their lives. Cross-sectional studies suggest the prevalence of antisocial behavior as expressed in the community peaks between 35 and 40, suggesting the possibility of remission. However, the few longitudinal studies available indicate substantial stability in the persistence of antisocial behavior, particularly violent behavior. Vaske, Ward, Boisvert, and Wright (2012) examined the stability of risk-seeking from adolescence to emerging adulthood and found that individuals who scored medium and high on risk-taking displayed absolute stability across time; this suggests that high levels of personality deficits are problematic across important segments of the life course. In a 30-year follow-up of antisocial personality disordered individuals, Guze (1976) found that 72 % of incarcerated male felons were still classified as "antisocial" by interview at follow-up. Robins et al. (1966) found that while 12 % had remitted, 27 % had improved but not remitted and fully 60 % of persons previously diagnosed with ASPD were unimproved. Black et al. (1995) in a long-term follow-up of males with ASPD showed that while antisocial men had reduced their impulsive behavior and to some extent their criminality, they continued to have antisocial and/or impulsive issues leading to significant interpersonal and other problems throughout their lives; while a minority of psychopaths and persons with ASPD were either "remitted" or "improved," a significant proportion of persons remained criminally active throughout follow-up periods (Black et al., 1995). Hare (2003a) noted that only cross-sectional data existed and that dimensional scores of psychopathic traits were only weakly related to age (albeit somewhat differently for ratings based on interview + file versus just file review). Hare also pointed out that older psychopaths spent significantly less time in the community than did non-psychopaths of similar: "Clearly, older psychopaths had far less opportunity to offend (less time at risk) than did nonpsychopaths…the criminal (and violent) propensities of the aging psychopath may have been greatly underestimated" (p. 62). Moffit (1993) identified persistent offenders as particularly early-onset offenders, with most likely to be individuals with significant inherited cognitive and emotional difficulties that later interacted with varied criminogenic situations; thus, persistent antisocial behavior appears to have a considerably stronger degree of heritability (and which leads to criminogenic environments and experiences) than that which is time-delimited. DeLisi and Vaughan (2007) showed that lower levels of self-control were uniquely related to career criminals. In summary, violent behavior distinguishes a select group of persons with ASPD, and only a more select group persists in violent criminal behavior over time.

Executive Functioning

Deficits in EF have been implicated in criminal, violent, and sexual offending. De Brito and Hodgins (2009b) provided a review of executive functioning in persistently violent offenders and noted a strong relationship to increased violence as a result of interactions between deficits in EF and impulsivity. Theoretically, the role of EF is a key element to particular theories of sexual offending, particularly the self-regulation theory.

Banich (2009) stated:

> The very nature of executive function makes it difficult to measure in the clinic or the laboratory; it involves an individual guiding his or her behavior, especially in novel, unstructured, and non routine situations that require some degree of judgment. (p. 89)

Consequently, clinical and experimental measures of EF likely provide relatively general proxies for EF deficits in actual life situations. Morgan and Lilienfeld (2000) conducted a meta-analysis of ASPD and performance on six reasonably well-validated measures of EF. Thirty-nine studies yielding a total of 4,589 participants were included in the analysis. Overall, antisocial groups performed .62 standard deviations worse on EF tests than comparison groups; this effect size is in the medium to large range. They noted that significant variation within this effect size estimate was found, some of which was accounted for by differences in the operationalization of antisocial conditions and measures of EF. Morgan and Lilienfeld concluded that evidence for the *specificity* of EF deficits relative to deficits on other neuropsychological tasks was inconsistent. Ogilvie, Stewart, Chan, and Schum (2011) found results similar to those of Morgan and Lilienfeld's (2000) original meta-analysis; their updated meta-analytic results confirmed that there is a robust and statistically significant association between ASB and EF impairments. An average weighted grand mean effect size of 0.47 standard deviations difference between antisocial and comparison groups was found across the studies. This effect size was in the medium range, compared to the medium to large 0.62 average weighted mean effect size produced by Morgan and Lilienfeld. This difference in grand mean effect size magnitude is likely a reflection of the heterogeneity of effect sizes observed in the current and earlier meta-analysis.

Larger differences in EF performance were observed in studies involving participants from correctional settings and with comorbid ADHD. Effect sizes for EF impairment were moderated by ASB categorization. Effect sizes for EF measures were found to be largest for the operationalization of physical aggression ($d=0.67$), criminality ($d=0.56$), and psychopathy ($d=0.49$). Measures of "hot" components of EF (those involved in affective decision-making and delay of gratification) were found to have a moderate-large effect size (relative to "cool" components of EF, which showed smaller EFs). De Brito, Viding, Kumari, Blackwood, and Hodgins (2013) showed that violent offenders with and without psychopathy showed similar impairments in verbal work memory and adaptive decision-making: "They failed to learn from punishment cues, to change their behaviour in the face of changing contingencies, and made poorer quality decisions despite longer periods of deliberation." The performance of both groups of offenders did not differ on what were deemed measures of "cool" and "hot" EF. In their review, Paschall and Fishbone (2002) concluded that a large body research from diverse files suggest that impaired EF plays an important role in aggression and violent behavior. However, they also make an extremely important point, namely, that "subclinical impairment" in EF (while less observable or diagnosable) is likely associated with a significant amount of such violence.

Rather than regard ASB as specific to EF impairments, a more accurate view may be that ASB is associated with a broader syndrome of more generalized neurocognitive impairments that include EF impairment as well as other deficits in self-control. Deficits in the initial stage of EF—attention—have been implicated as a key factor in psychopathy. Newman in various publications (e.g., Vitale & Newman, 2009, 2013; Baskin-Sommers, Wallace, MacCoon, Curtin, & Newman, 2010; Zeier & Newman, 2013) has studied and delineated the relationship of attentional deficits as the critical component for response modulation as a key component of psychopathy. Their response modulation hypothesis holds that abnormalities in selective attention undermine the ability of psychopathic individuals to consider contextual information that modulates prosocial and/or more distal goal-directed behavior. Newman and his colleagues have focused on the role of attentional deployment as the critical pathway associated with psychopathic traits. Attentional deployment involves directing one's attention toward or away from an emotional or otherwise arousing situation. Per Newman's work, psychopathic individuals are not affected by peripheral or contextual information that is incongruent with their primary focus of attention. Rather, they are characterized by an attentional "bottleneck" that interferes with simultaneous processing of multiple channels of information so they are not able to rely on previous experience or other concurrent experiences to influence goal-directed behavior in the face of a prepotent goal. Consequently, they appear oblivious to internal and external stimuli that cause less psychopathic individuals to cognitively "stop" to evaluate their behavior. Such impaired response modulation results in better "task performance" relative to enactment of prepotent motivational or affective states for psychopathic individuals (they cannot or do not pay attention to distracters), but create problems when such information is central for effective self-regulation toward longer-term goals. A related more general finding per Gable and Harmon-Jones (2008) is that high-intensity approach motivation reduces global attentional focus (relative to low-approach-motivated positive affect). Reward incentives are also known to promote greater goal persistence. Thus, attentional deficits which lead to impulsive, immediate, and self-gratifying behavior relative to "hot" stimulation are key components relative to disinhibited and unconstrained behavior such as sexual offending. Compared to non-offenders, De Brito et al. (2013) found that violent offenders with ASPD (both with and without psychopathy) showed similar impairments in verbal working memory and adaptive decision-making. They failed to learn from punishment cues, to change their behavior in the fact of changing contingencies, and made poorer quality decisions despite longer periods of deliberation. Of note, both of the offender groups were comparable on measures of "cool" and "hot" executive function.

Equivalent findings regarding EF have been found for sexual offenders as well. Joyal et al. (2014) examined 23 neuropsychological studies reporting data on 1,756 sexual offenders via meta-analysis. As expected, a highly significant, broad, and heterogeneous overall effect size was found; sexual offenders generally differed across tasks to assess EF. However, taking subgroups of participants and specific cognitive measures into account significantly improved homogeneity. Sex offenders against children tended to obtain lower scores than did sex offenders against adults on higher-order executive functions, whereas sex offenders against adults tended to obtain results similar to those of nonsex offenders, with lower scores in verbal fluency and inhibition. Similarly, Langevin and Curnoe (2007) suggested that various conditions related to EF as measured by neuropsychological tests are common among sexual offenders. Fabian (2010) concluded that the research was unclear and inconsistent regarding the prevalence of neuropathology among sexual offenders relative to sexual violence; his review identified many potential neuropathological domains which might be related to problems in self-control among sexual offenders. Reid et al. (2010) found a correlation of .37 between global indices of executive functioning and hypersexuality, suggesting a moderate relationship between those two domains. While Hare and Neumann (2008) reported that a large literature demonstrates that there is, at most, only a weak association between psychopathy

and intellectual ability, Egan (2011) reported a robust and unambiguous relationship between lower intellectual functioning and criminal behavior, with little difference between those offenders detected and those not detected. He pointed to an association between lower intelligence, decreased economic independence and resources, and a greater sensitivity to "small personal losses, whether material or personal," that lead to higher frequency of humiliation, anger, and hostility. An interesting distinction arises regarding EF and "hot" and "cool" internal experiences. On the one hand, for select individuals, it seems clear that to the degree that an individual possess EF, those processes can be undermined and overwhelmed by "hot" processes, leading to significant disinhibition. On the other hand, for select sexual offenders, the "cool" processes of EF appear to be employed (e.g., focused, sustained attention, problem-solving, and organization/coordination of actions) in enacting sexual offenses in such a manner as to minimize the likelihood of detection.

Generally, problem-focused coping (PS) reflects EF-related strategies in the face of provocation and arousal, particularly in the identification of problems and appropriate skills to manage the source of those reactions. Both coping and PS involved perceiving, defining, and appraising problematic acute or recurring situations or "a life episode" (e.g., cognitive reappraisal) in ways that they can be confronted and managed; they also involve various specific strategies or tactics to both address one's experience and situation. A common notion of issues in problem-solving involves (a) deficits in problem recognition, (b) a lack of consequential (means-end) thinking (e.g., failing to think through potential consequences of actions, particularly longer-term results), and (c) difficulties generating a range of reasonable options. McMurran (2009) has identified PS as significant factor in violent behavior generally, while Serran and Marshall (2006) suggested that dysfunctional coping is associated with sexual offending. Similarly, Slab and Guerra (1988) found that criminal offenders, including sexual offenders, showed a variety of deficiencies in problem-solving, including (a) problem definition and failure to seek relevant information, (b) enacting hostile goals, and (c) generating relatively few alternative coping or PS solutions. Hanson et al. (2007) found that deficient problem-solving, including sexual coping, showed a significant linear relationship to sexual offender recidivism. Nezu, Nezu, Dudek, Peacock, and Stoll (2005) found that social problem-solving deficits were associated with sexual aggression and sexual deviance in a sample of child molesters.

Given the strong evidence found in studies of genetic liability to externalizing disorders, including substance use disorders and ADHD, it should not be surprising that such conditions have also been demonstrated to have some particular association with criminal, violent, and sexual offending.

Alcohol/Substance Use Disorders

Substance abuse disorders (SAD) also show strong associations with criminal and violent behavior, including sexual offenses. At least one-half of all violent crimes involve alcohol consumption by the perpetrator, the victim, or both (Collins & Messerschmidt, 1993). Per DOJ review by Cannon and Carmon (2006), studies overwhelmingly indicate a strong link between the consumption of alcohol and violent acts. Between 27 and 47 % of all homicides and acts of purposeful injury have been found to involve the use of alcohol by the perpetrator. Alcohol consumption is not only linked to acts of violence but to the escalation of violence and the resulting severity of injuries. US crime reports indicate that approximately six in ten incidents of alcohol-related violence resulted in injury to the victim. Alcohol use increased the frequency with which threats of violence escalated to actual assaults, with a higher percentage of assailants who had been drinking committing a physical attack resulting in injury than did the nondrinkers. Per DOJ review by Cannon and Carmon (2006), almost one in four victims of violent crime report that the perpetrator had been drinking prior to committing the violence. O'Driscoll et al. (2012) showed that released prisoners with substance use disorders showed a 33 % increase in the risk of criminal reoffending over a 5-year follow-up.

As noted, Krueger et al. (2007a) have demonstrated that alcohol and drug use/dependence are part of a genetically linked spectrum of externalizing disorders along with ASPD; thus, there is strong biologically mediated comorbidity between those conditions. From a personality perspective, Hopwood et al. (2011) noted negative affect and disinhibition represent risk factors for increased substance abuse; further, alcohol use is associated with increased impulsivity and disinhibition, while other substance abuse is associated with greater disinhibition. Dick et al. (2010) reported that alcohol consumption increases impulsive acts, particularly via increases in perceived urgency and sensation-seeking. Other researchers have found that the dimension of sensation-seeking was associated with increased impulsive behaviors among alcoholics (Lejoyeux et al., 1998). Godlaski and Giancola (2009) found that irritability successfully mediated the relation between EF and intoxicated aggression for males. Nonspecific or nonsexual affective (e.g., anger, fear) or motivational arousal can "transfer" to and heighten sexual arousal given a sexualized context; thus anger, particularly when accompanied by alcohol intoxication or disinhibition, can relatively easily become additionally experienced as sexual arousal in the presence of sexualized cues or context.

In addition, substance abuse also affects EF and self-regulation. In his early review, Giancola (2000) stated, "In summary, the framework postulates that when executive

functioning is impaired, there is a resultant lack of cognitive control (i.e., inhibition) over behavior as a result of an inability to pay attention to and appraise situational cues, take another's perspective, consider the consequences of one's behavior, and defuse a hostile situation. Given this reduction in behavioral inhibition, hostile cognitions and negative affective states are more likely to manifest as overt violence" (p. 589). Giancola concluded that executive functioning mediates the alcohol-aggression relation in that acute alcohol intoxication disrupts executive functioning, which then heightens the probability of aggression. In addition, he found that executive functioning moderates the alcohol-aggression relation in that acute alcohol consumption is more likely to facilitate aggressive behavior in persons low, rather than high, in executive functioning. In line with the notion that EF is best viewed as a meta-cognitive or overriding construct, Giancola, Godlaski, and Roth (2012) found that the best predictor of intoxicated aggression was a "Behavioral Regulation Index," comprising component processes such as self-monitoring, inhibition, emotional control, and flexible thinking. Hofmann and Frieze (2008) found that implicit attitudes affected alcohol consumption and increased the behavioral impact of impulsivity by disrupting cognitive restraint standards. In fact, Wolfe and Higgins (2008) showed that actual low self-control has a separate additive effect on (low) perceived behavioral control relative to alcohol consumption; lower levels of inhibitive factors and less belief those factors affect control of behavior each can lead to increased that alcohol use. Further, alcohol consumption may begin under some degree of self-awareness and self-control, over time additional consumption may act to further decrease both perceived and actual self-control. As Abbey (2011) summarized, alcohol consumption biologically impacts a number of cognitive functions including basic reasoning, planning, and judgment while impeding response inhibition relative to the suppression of a compelling predominant response (e.g., a strong motivation). When intoxicated, persons focus on salient, superficial cues, including motivations and affects, rather than distal or subtle cues. Consequently, feelings of anger, sexual arousal, entitlement, frustration, etc. may be considerably more salient or potentiated than "morality," empathy for a potential victim, or anxiety or concern for future consequences. As noted by Giancola (2004), meta-analytic studies indicate that alcohol has a medium effect size on aggression, but he suggested that key moderating factors are at work. He found that dispositional low EF was related to increased aggression in males after alcohol consumption and that alcohol also exerts its effect by disrupting EF. In addition, alcohol consumption likely leads to a decrease in perceived or experienced anxiety or fear of negative consequences. Psychologically, learned alcohol-related expectancies can also play a role in increased social violence. Walters (2002) found that reactive criminal behavior was more strongly associated with substance abuse, with criminal thinking mediating the relationship between such abuse and criminal behavior. He suggested that substance abuse might affect EF and magnify the impulsive and irresponsible features (e.g., cognitive indolence or critical reasoning about potential consequences of behavior) that underlie more reactive criminal behavior.

Anecdotally, the use of alcohol or alcohol or drug abuse/dependence is frequently implicated as a factor in sexual offending. Meta-analytic research has failed to identify such a psychiatric condition of the perpetrator as a predictor of sexual offense recidivism (e.g., Hanson & Bussière, 1996, 1998, Hanson & Bussiere, 1998); however, this finding was likely affected by various forms of dissimulation. A considerable research literature has accumulated which strongly links substance use, particularly alcohol use, to sexual offending. Looman and Abracen (2011) reported that incarcerated sexual offenders reported significantly high histories of alcohol abuse; they also reported that such a history added incrementally to the prediction of risk for future sexual offenses, as did Långström et al. (2004). In a recent review, Kraanen and Emmelkamp (2011) concluded "about half of the sexual offenders had a history of substance abuse, that about a quarter to half of the sexual offenders had a history alcohol misuse or alcohol-related disorders, and that about one fifth to a quarter of the sexual offender s had a history of drug misuse or drug related disorder" (p. 486). Of note, they found more sexual offenders than nonsexual violent offenders abused alcohol.

As with other types of criminal and violent offending, reports of substance abuse among sexual offenders appears common. Felson, Burchfield, and Teasdale (2007) reported that in 36 % of incidents of sexual assault, the perpetrator had been using alcohol. Similarly, Cannon and Carmon (2006) found that over one-third of victims of rapes or sexual assaults report that the offender was drinking at the time of the act. Kraanen and Emmelkamp, in their review, concluded that sexual offenders are often intoxicated when committing sexual offenses, most commonly by alcohol. Alcohol and drug use appears to function primarily as an aggravating predisposing factor to sexual offending. Seto and Barbaree (1995) proposed that alcohol abuse was related to increased likelihood of sexual offense by way of increasing or magnifying disinhibition. However, in addition, such use, primarily in excess (e.g., intoxication), can also serve as a primary mechanism of sexual assault. Alcohol and drug use, as noted previously, share the externalizing spectrum with antisocial behavior in adulthood.

Perpetrators of sexual assault typically have strong beliefs about alcohol's effects on their sex drive and a female's sexual interest. Abbey, McAuslan, Zawacki, Clinton, and Buck (2001) identified that men who believe they are drinking

alcohol experience more sexual arousal than do men who do not believe they are drinking (regardless of whether they actually consumed alcohol). In addition, they noted that alcohol enhanced expectancies of generally disinhibited, aggressive, and sexual behavior. Alcohol use appears to also influence an offender's perception of situations, such that their view of circumstances seems more permissible for a sexual assault. More specifically, Abbey (2011) found that alcohol use supports the perception of cues that a female is interested in being sexual and the ignoring of disconfirming cues; further, to the extent that sexual overtures by a male who has consumed alcohol are perceived as rejection is also supported as a basis for sexual assault. Given the alcohol-related expectancies, Abbey also noted that some offenders might use alcohol use to provide justification for initiating a sexual assault. More generally, consuming alcohol can provide expectancies for lowered concern re "normal rules," the interpretation of "ambiguous" behavior on a target or companion, as well as misperceptions about the behavior or intent of others. Most specifically, Parkhill, Abbey, and Jacques-Tiura (2009) found that:

Heavy drinking men may be so focused on their own sexual arousal and feelings of entitlement that they:

> miss or ignore messages intended to convey the woman's lack of interest…Alcohol administration studies demonstrate that intoxicated men are more aggressive than sober men, particularly when they feel provoked… Intoxicated perpetrators may view any form of consensual sexual activity as permission to engage in intercourse, thus feeling wronged and provoked when a woman stops their sexual advances. (p. 4)

Relative to sexual offending, Prentky and Knight (1991) interpreted their multivariate research results as showing that alcohol as a factor in sexual offending served primarily as a disinhibitor of "lifestyle impulsivity," consistent with other studies that have found that premorbid personality traits were more important in predicting aggressive, violent behavior during altered states than the substance itself. Similarly, Abbey (2011) noted that more intoxicated perpetrators are less likely to report planning an assault in advance. A positive linear relationship exists between the amount of alcohol consumption and the greater degree of aggression in a sexual assault. (Since a large consumption of alcohol is also likely to interfere with the erectile or ejaculatory response of a male, the inability to maintain an erection or to ejaculate may further contribute to the experience of frustration and the degree of violence expressed in a sexual assault.) However, at very high levels of blood alcohol consumption, assault severity appears to decline due to more significant physical and even cognitive impairment.

Abbey (2011) points to studies that show key interactions between alcohol use and personality predisposition: persons high on measures of irritability, low on empathy, and who have more general antisocial personality characteristics are particularly aggressive when intoxicated. She found that both perpetrators who acknowledged coercion or who used a victim's impairment were both characterized by more endorsed greater acceptance of casual sex and lower empathy and reported a more extensive history of antisocial behaviors. Thus, the cumulative literature indicates an interactive, synergistic relationship between alcohol and drug abuse/dependence and sexual violence. Thus, alcohol and/or substance abuse/dependence may be most likely to function in a facilitative role for sexual offending, interacting with a variety of other personality and related conditions. Anger may accentuate entitlement, exacerbate generalized hostility or anger toward women, lessen inhibitions toward sexual behavior with persons for whom an individual has a dispositional low level of sexual interest in, and/or affect expectancies. Persons elevated on varied predisposing personality and related factors linked to sexual violence are more likely to abuse alcohol and other drugs, which, in turn, amplifies their likelihood of sexual violence; (like pornography) alcohol's effects are greatest for persons characterized by other predisposing characteristics toward aggression and sexual assault.

Like other personality-related conditions, it is key to recognize that alcohol and other substance use is strongly influenced by implicit, automatic or "out of awareness" aspects of psychological processes. Implicit attitudes, attentional bias, implicit arousal and memory associations have all been directly implicated as key factors in alcohol and substance use. Rooke et al. (2008), in a meta-analysis of approximately 20,000 participants, found a medium effect size for implicit psychological factors indicating a reliable association between such factors and substance use.

However, alcohol and/or substance abuse/dependence may also be viewed as a primary condition predisposing individuals toward sexual offending as well, particularly given the perception of an opportunity for victimization and/or permissive circumstances. That is, persons with some minimal number or accumulation of other predisposing conditions appear to commit sexual offenses as a result of episodes of intoxication or "elevated" states secondary to drug use; it seems possible that some persons may experience repeated episodes of substance abuse which lead to repeated acts of sexual assault. Per Felson and Staff (2010) sexual offenders are more likely to be intoxicated while committing their offenses than other criminal offenders; studies suggest that approximately 2/3 of sexual offenders were intoxicated when they committed their crimes (with a higher rate among those who targeted adults compared to those who battered children) (e.g., Peugh & Belenko, 2001). In addition, when sexual offenders were intoxicated, evidence indicates that the particular sexual offense was more likely to include physical injury, sexual penetration, and threats to harm or kill the victim (e.g., Parkhill et al., 2009).

Attention-Deficit Hyperactivity Disorder

In most incidents of sexual offending, attention-deficit hyperactivity disorder (ADHD) is likely to be an insufficient condition to provide a primary or exclusive basis for sexual offending. However, given the information described above, it seems clear that ADHD (via its component elements) is likely a powerful facilitating or aggravating condition related to sexual offending. ADHD is a particularly prevalent condition, with a pronounced effect on EF and thus undercuts both self-regulation and more global self-control (e.g., Buker, 2011). Barkley (2012a) identified the six dimensions of EF as the fundamental deficits that accompany and effectively define presentations of ADHD. Thus, he elaborated on the maladaptive aspects of ADHD-related deficits in EF: impairment in self-monitoring; lack of inhibition or restraint in behavior and inability to subordinate immediate interests or urges; deficiency in hindsight and foresight; disrupted self-talk and self-guidance; overdependence on external, immediate consequences related to motivation and affect; and lack or diminished capacity for problem-solving. Others have identified issues in boredom susceptibility, failure to attend to consequences and rules, and varied forms of impulsivity as central components of this condition; those specific components have been identified as personality-related motivators and dishinibitors, respectively. Egan reported that ADHD also interacted with lower IQ to increase the relationship with antisocial behavior. Third, by interfering with sustained attention, ADHD in select individuals appears to potentiate urgency, a lack of early response inhibition, and subsequently compromise the ability to premeditate and persist in appropriate problem-solving strategies. Chamorro et al. (2012) found impulsivity to be strongly associated with ADHD in the general population. Willcutt, Doyle, Nigg, Faraone, and Pennington (2005) conducted a meta-analysis of 63 studies involving EF assessment in over 3700 persons with ADHD. They found that persons with ADHD exhibited significant impairment on all EF tasks, with strongest effects on measures of response inhibition, vigilance, working memory, and planning. Such differences were not explained by differences in intelligence, academic achievement, or symptoms of other disorders. They concluded that ADHD is associated with significant weaknesses in several key EF domains, laying the foundation for compromised self-control and self-regulation. ADHD has been demonstrated to be related to specific personality dimensions, specifically low conscientiousness and low agreeableness (e.g., Nigg et al., 2002). Retz and Rosler (2009) noted a strong association between the condition and reactive aggression both during childhood and into adulthood. Certainly, impairing symptoms of ADHD may persist into adulthood in as many as 65 % of cases (Faraone et al., 2006). In fact, Dalsgarrd et al. (2013) showed that approximately 50 % (47 %) of children with ADHD with conduct problems and 26 % of those without conduct problems had criminal convictions in adulthood; they were 12 times more likely than peers to have violent convictions as adults.

Numerous studies have demonstrated that ADHD appears to be comorbid and predisposing conditions for personality disorders associated to sexual offending. Miller, Nigg, and Faraone (2007) showed that the presence of ADHD in adults (particularly those subtypes of ADHD that involved hyperactive/impulsivity or combined subtype, most especially the latter) was associated with increased rates of personality disorders, including Cluster B personality disorders and avoidant personality disorder. In addition, the joint presence of ADHD was an incremental predictor of increased impairment when present with a personality disorder. In a prospective follow-up study, Miller et al. (2008) found that persons diagnosed with childhood ADHD were at increased risk for personality disorders in late adolescence, specifically borderline (OR = 13.2), antisocial (OR = 3.0), avoidant (OR = 9.8), and narcissistic (OR = 8.7) personality disorders. Those with persistent ADHD were at higher risk for antisocial (OR = 5.3) and paranoid (OR = 8.5) personality disorders when compared to those in whom ADHD remitted, but not the other personality disorders. Cumyn et al. (2009) showed that males with combined ADHD type were more likely to be characterized by ASPD, BPD, and NPD as adults, as well as other comorbid psychiatric conditions. Similarly, as per Bernardi et al. (2012), ADHD was associated independently of the effects of other psychiatric comorbidity with increased risk of narcissistic, histrionic, borderline, antisocial, and schizotypal personality disorders. They also showed that a lifetime history of ADHD was also associated with increased risk of engaging in behaviors reflecting lack of planning and deficient inhibitory control (as well as with high rates of adverse events, lower perceived social support, and higher perceived stress). Again, ADHD is associated with the development of high rates of ASPD in adulthood, including in persons who did not receive a diagnosis of conduct disorder prior to maturity (Retz & Rosler, 2009). Langevin and Curnoe (2011) found that ADHD was a particularly good predictor of criminal recidivism and showed a strong association with psychopathy scores; the primacy of heightened impulsivity appeared particularly important. [Of noted, several studies have found that of persons with diagnosed paraphilic disorders, as many as half may have a history of ADHD (e.g., Kafka and Hennen, 2002; Kafka & Prentky, 1998).] Buker (2011) identified several studies that ADHD acts a significant factor affecting an individual's level of self-control (e.g., disinhibition) independent of other social factors. Thus, on its own and by its strong association with personality disorders, ADHD is associated with strong motivators and elements of disinhibition.

Hypersexuality

Hypersexuality should also be considered as an additional personality-related condition potentially related to increased sexual offending as a particular form of interpersonal violence. Hypersexuality is increasingly used in reference to a putative mental disorder; thus, ICID-10 included both a category for excessive sexual drive (e.g., satyriasis for males) and one for excessive masturbation. However, more generally, hypersexuality refers to the individual differences in the relatively elevated experience of sexual thoughts, fantasies, urges, and/or activities (sexual preoccupation and/or high sex drive). Laumann, Gagnon, Michael, and Michaels (1994) reported that approximately 54 % of men think about sex every day or several times a day and 43 % do so a few times per month or a few times per week. Prior to the increased access to sexualized material via the Internet, that study also showed less than 2 % of males ages 18–59 masturbated daily and just more than 1 % masturbated more than once per day. More recently, Kafka (1997) suggested that excessive sexual preoccupation might be viewed as persons who spend over one hour per day involved in sexual thoughts, fantasies, urges, planning, or other sexual-related behavior. While specific causes are unclear, hypersexuality is found in neurodegenerative conditions and more acute neurological conditions. Thus, there can be significant individual differences in solitary sexual behavior, indicating the likelihood of differing predispositions to sexualized experience. Such individual differences could include lower thresholds for sexualized stimulation, a broader set of stimuli for sexualized stimulation, greater excitation (response) for sexualized stimulation, and decreased latency for decreased sexual arousal (e.g., remaining in a state of such arousal for more lengthy periods). Hypersexuality is implicated in various theoretical models for sexual offending and in multiple research studies as risk factors and/or as dynamic or criminogenic needs for sexual reoffending (often identified as sexual preoccupation and/or sex as coping). Hypersexuality provides for specific elevations in or enhanced propensity for generalized sexual arousal and behavior that acts as an additional prepotent motivator towards an increased probability of sexual offending.

In addition, cognitive factors such as attribution also appear to play a role in the experience of hypersexuality. Thus, several studies have demonstrated that social context and personal beliefs can affect more generalized arousal (e.g., from fear or anxiety) so that misattribution leads to the experience of sexualized arousal (e.g., Dutton & Aron, 1974; Loftis & Ross, 1974). Arousal has also been identified as a key factor in attention and memory so that persons in a state of heightened sexual arousal attend more to their set of sexual "cues" and demonstrate facilitated retrieval of sexualized memories. In addition, heightened sexual arousal can affect the effectiveness of various forms of self-regulation when such arousal is "nonoptimal" and compromises cognitive and behavioral performance of self-control mechanisms. Moreover, Malamuth, Check, and Briere (1986) demonstrated that aggression per se was particularly sexually arousing for a subgroup of males, specifically for those whom aggression itself was especially arousing (while for most males, exposure to aggression had an inhibiting effect on sexual arousal). Ross (2012) demonstrated that self-control moderated the association between sexual desire and various high-risk sexual behaviors; the relationship between sexual desire and high-risk sexual behaviors was stronger when self-control was low than when self-control was high. Reid et al. (2010) found a correlation of .37 between global indices of executive functioning and hypersexuality, suggesting a moderate relationship between those two domains. In short, individual differences in hypersexuality appear to function both as a nonspecific amplifier of motivation and emotion and/or as specific amplifier of generalized motivational and emotional arousal in a sexualized direction. Baughman, Jonason, Veselka, and Vernon (2014) showed that psychopathic traits were most correlated with overall sex drive (as well as with a wider range of sexual fantasies themes) relative to other dimensions of the dark triad. Similarly, Williams, Cooper, Howell, Yuille, and Paulhus (2009) showed that the greater the degree of self-reported psychopathic traits, the more likely the persons were to report acting out deviant sexual fantasies in behavior (including pornography use).

Collectively, the available scientific information regarding personality and related risk factors and/or predisposing conditions for sexual offending is quite convergent and largely supports earlier and current theoretical models of sexual offending against both children and adults. Further, it should be noted that most of this information is based on self-report of identified sexual offenders. Thus, it is likely to be colored by the ego-syntonic nature of problematic personality characteristics and related dimensions such as EF, the common "self-enhancing" aspect to personal evaluation, the degree of lack of awareness of maladaptive intrapsychic/interpersonal characteristics and related dimensions, and the conscious denial or minimization of recognized negative personality and interpersonal characteristics and related dimensions. Similarly, Suchy (2009) pointed out that many traditional neuropsychological measures of EF rely on practiced skills and practiced abilities (which vary across individuals) and artificial tasks lacking in personal meaning and other dimensions for subjects. Consequently, such measures lack ecological validity in that they do not present novel, complex situations to individuals related to real-life situations involving "hot" or personal issues. Thus, the currently available empirical literature regarding nonsexual risk factors for sexual offending probably represents a limited set of the factors actually related to such offending and potentially distorting the identification and degree of the dimensions of those factors (e.g., intensity, frequency, generalization, duration) as well.

Personality and Related Conditions and Sexual Offending: Implications from Theory and Research

Sexual offending is typically an antisocial and/or criminal behavior as it involves violating the rights of others. Further, most criminal sexual offenses are violent offenses or acts of violence, involving contact or the threat of contact with other persons. Violent offending is often dichotomized as reactive or instrumental; in the former, such offending is viewed as provoked, mediated by negative affect and enacted impulsively, while in the latter, the offending is viewed as planned/premeditated and implemented in a more detached, less emotional fashion (albeit still mediated by arousal/temptation motivational factors). In considering victim-focused sexual offending, while some such offending also appears to fall within each category, a large body of sexual offending also seems to be of a more hybrid form of violent offending. That is, much sexual offending begins with some form of erotic, even romanticized fantasizing (a crude form of planning and/or premeditating) that may be generalized (e.g., from unspecified memories, images, stories, or pictures of children or females) or specific to one or more particular potential victims. Further, while some sexual offending is particularly "opportunistic" and reactive to either the opportunity and/or particulars of an available victim (in the context of distal and/or proximal motivational factors), other incidents of sexual offending involve more focused grooming or planning to secure the opportunity to sexually offend against relatively specific victims (e.g., a particular victim or one of a set of victims likely to be available at a time and place). When an appropriate victim (relative to motivational factors and personal history) and a perceived permissive situation or setting occur or present itself, an act of sexual offending can be enacted. In such ways, these sexual offenses seem to be characterized by both elements of some degree of conscious or unconscious premeditation and reactivity (impulsivity). Alternately, a sexual offense could begin with an encounter with an appropriate (e.g., emotionally appealing or sexually arousing victim) and a perceived permissive situation or setting, provoking or eliciting a positive emotional or motivational response, which interacts with state variables (e.g., intoxication, pre-existing emotional and/or sexual arousal), leading to a sexual offense (which may serve as the basis for erotic/romanticized fantasizing and reinforcement via subsequent sexual arousal and/or orgasm).

Theoretically Based Factors in Sexual Offending

While atypical or deviant sexual interests and individual differences in sexual arousal and preoccupation have always been accorded a prominent place in the etiology of sexual offending, nonsexual factors have also long been identified as playing a significant role in sexual offenses. Groth (1979) and Finkelhor (1984) both proposed that underlying motivations for sexual offending were not necessarily exclusively sexual in nature but rather may reflect *nonsexual* "needs" and unresolved life issues. In the evolution of theoretical models of sexual offending, there are strong commonalities among them as to the relevant dimensions of those theories (e.g., Finkelhor, 1984; Marshall & Barbaree, 1990; Hall & Hirschman, 1992; Ward & Hudson, 1998; Ward & Siegert, 2002; Beech & Ward, 2004). In addition to a primary sexual factor [deviant sexual arousal/fantasies and sexual preoccupation (dysregulated and misdirected sexuality)], the following three "nonsexual" areas have consistently been identified as particularly significant in the etiology and maintenance of sexual offending:

- Self-regulation, including issues related to self-interest/entitlement and negative affect
- Distorted attitudes permissive of sexual offending specifically and antisocial acts in general
- Deficits in social intimacy and social competence (social conflict/isolation)

Each of these models validated a perspective that sexual and/or personality dimensions impelling certain urges and/or behaviors that conflicted with and overcame potential internal inhibitions related to self-regulation in the context of situational factors (e.g., "permissive" circumstances for sexual offending, acute dysregulation, strategies for overcoming victim resistance). In addition, these models also highlighted the cumulative effect of multiple sexual and nonsexual factors; that is, some number and degree of sexual factors can interact with some number and degree of nonsexual factors and those various combinations would lead to sexual offending.

Ward and Beech (Ward & Beech, 2003; Beech & Ward, 2004) offered a unique perspective on notion of static/dynamic distinctions of etiological factors but one that paralleled the evolving view of personality and related conditions. They suggested that states (dynamic variables) and traits (static variables) were each aspects of the same underlying construct; for any temporarily manifest state, there would be a corresponding underlying trait or predisposing condition. Per their view, so-called "static" risk factors are significant because they serve as markers of the expression of dynamic risk factors. For example, what has atypically been labeled as a "static" risk factor (e.g., history of criminal behavior) can be an indicator of underlying antisocial or psychopathic predisposing characteristics as psychologically meaningful causal factors. Similarly, deviant sexual preferences (a trait factor) lead to sexual arousal (a state factor) in particular situations. Thus, per Beech and Ward, so-called dynamic risk factors are best understood as ongoing or current expressions (states) of more long-term or enduring underlying predispositions. Beech and Ward argue that every sexual offense involves

some degree of each of the four domains noted above but that different sexual offenses will have at their center a particular set of primary dysfunctional factors, which may vary across specific sexual offenses. Beyond sexual self-regulation, each of the other domains or vulnerabilities to sexual offending involve particular personality dispositions such as motivations/emotions and/or self-control/executive functions that compromise emotional and behavioral expression, attitudes toward types of persons, and social interactions/relationships. In addition to a smaller group of offenders characterized by avoidance and general distress, Ward et al. also pointed to much larger subgroups of "approach" sexual offenders whose sexual offending is associated with positive affect and motivation as well as premeditation.

Specific Research into Risk Factors/ Criminogenic Factors in Sexual Reoffending

A sizeable body of research has been conducted in attempts to identify specific risk factors or predisposing conditions empirically related to sexual offending in general. Most of this work has been organized and presented in the form of a series of meta-analyses by Hanson and various colleagues (e.g., Hanson & Bussière, 1996, 1998, Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2004, 2005; Mann et al., 2010). One significant set of variables included various dimensions of sexual *deviance and preoccupation:* any deviant sexual interest, sexual interest in children, multiple paraphilias, sexual preference for rape, sexual preoccupation, prior sex offenses, and early onset of sexual offending. Another primary set of variables identified as predisposing to sexual reoffending fell under the category of antisocial orientation. This cluster of risk factors/predisposing conditions included a measure of psychopathy; antisocial personality disorder; any personality disorder; general criminal and violent history, including such behavior during youth; hostility toward women; "Machiavellianism"; callous/lack of concern for others; self-regulation issues (including impulsivity/recklessness); deficits in problem-solving; offense-supportive attitudes; grievance/hostility; noncompliance with conditional release; and substance abuse. Further, another set of risk factors/predisposing conditions concerned social relations including failure to establish or maintain intimate relationships or conflict in such relationships and negative social influences (criminal families and associates). Of note, Eher et al. (2003) found that personality disorders were common among paraphilic sexual offenders; they were even more common among apparently non-paraphilic sexual offenders. In particular, so-called non-paraphilic sexual offenders were more likely to be characterized by Cluster B and avoidant personality disorders, although narcissistic personality disorder was found commonly among sexualized rapists. In addition, various cognitive factors largely related to self-regulation and goal achievement also influenced rates of sexual offending. Cantor et al. (2004) found lower IQ scores among sexual offenders relative to other criminal offenders, particularly for offenders against young children and for child molesters with hands-on offenses. Langevin and Curnoe (2007) found that, like other criminal and violent offenders, sexual offenders showed significantly lower education attainment, greater failed grades, more frequent placement in special education classes, and higher incidences of school dropouts than community controls.

Several investigators have attempted to delineate the multivariate pathways to sexual offending against both children and adults. Again, notably, these efforts have consistently identified nonsexual factors as playing central roles. In their most recent typology of child molesters, Daversa and Knight (2007) found that aspects child molesters as a group exceeded non-offenders in terms of their psychopathic traits/externalizing behavior, indicating that some portion of child molesters are characterized by a significant amount of externalizing behavior. Additional pathways included dimensions of inadequacy, negative affect, and low social competence. Relative to rapists, Knight (1999) suggested that in addition to sexual *deviance/promiscuity*, the other primary pathway involved *negative (hyper)masculinity* (including hostility toward women, gratification from dominance, and hypersensitive and generally hostile orientation). In his most current model of sexual offending, Knight (2010) postulated several key dimensions related to sexual offending: *hypersexuality*, *impulsivity* (opportunity), and *callous-unemotional/violent* (expressive aggression). In addition, other studies have also identified that generalized hypersexuality should be noted to be a non-paraphilic sexual dimension related to sexual offending as well. Malamuth (e.g., Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, 2003) has postulated the confluence model of sexual aggression against adult females. In addition to a sexual group of risk factors (e.g., *sexual promiscuity/impersonal sex, both related to notions of hypersexuality*) which in part reflected that status and self-esteem are achieved by sexual "conquest." *Hostile masculinity* was the second constellation of risk factors for sexual offending including callous, manipulative attitudes toward women; grandiose, narcissistic personality characteristics; hostility toward women; and dominance as a motive for sex (e.g., increasing sexual arousal). The hostile masculinity path was found to be rooted in a proneness to *general* hostility (a combination of impulsiveness and irritability) which leads to *attitudes accepting of violence against women* and, in turn, narcissism, (specific) hostility to women, and (sexual) dominance (particularly in the personality context of low empathy and nurturance). Further, hostile masculinity was also viewed as containing other interrelated components related to a propensity for sexual offending: an insecure, defensive, hypersensitive, suspicious, and hostile orientation (particularly toward women) leading to social isolation as well as related

gratification from controlling or dominating women. Disinhibition occurs primarily as a result of the confluence of such hostility dimensions overriding whatever existing levels of empathic responses and other inhibitory mechanisms. Malamuth has described the confluence model as an integrative and interactional one, in that sexual assaults result only when there is a "confluence" or co-occurrence of major constellations of personal attributes (which each include various subcomponents of motivational/affective and attitudinal predispositions). There is clearly substantial convergence between Knight's and Malamuth's models of sexual violence; each model emphasizes several similar nonsexual personality dimensions: dispositional anger/general hostility, negative attitudes toward women, narcissistic personality characteristics including entitlement, callousness/low empathy, impulsivity, and dominance.

Another consideration related to risk factors and/or predisposing conditions for sexual offending is an earlier belief that a strong or distinctive presence of one of several conditions might be sufficient to explain sexual offending. However, both empirically and theoretically, it seems clear that any meaningful theory or empirical description of sexual offending would most likely involve cumulative probability of multiple interacting primary and secondary (or specific and general) risk factors or conditions converging in particular situations or contexts. Thus, risk of sexual offending likely increases: (1) simply as the number of risk domains or predisposing conditions increases and/or (2) certain risk domains interact (e.g., act synergistically so that their combination is actually greater than a simple additive impact). Such is the case for the presence of deviant sexual interests and relative dimensions of psychopathy (e.g., Hawes et al., 2013) and in the research on the confluence model by Malamuth and his colleagues.

A Dimensional Perspective on Personality and Related Conditions Related to Sexual Offending

Given the previous discussion, it seems clear that personality and related predisposing characteristics should clearly be viewed as playing a role in sexual offending. Following various models of self-control and self-regulation, a primary personality element is a general awareness or what could be termed psychological mindedness, even to a crude degree, referencing an individual's awareness of their past disposition and present internal states. Thus, a critical, initial issue in the self-control process is the individual's self-monitoring of their "experiences" (e.g., Carver & Scheier, 1981). People also differ in the degree to which perception of relevant internal and external stimuli is conscious or unconscious; they are more or less attentive or aware of their own visceral reactions or events/features of their environments that cue or trigger personal responding. Individual differences also exist in person's perception of and sensitivity to internal experiences (including thoughts/fantasies/plans) so that their conscious thresholds are different and they "feel" such experiences with differing degrees of intensity or urgency. Desire or temptation varies for individuals in strength, duration, and frequency. It is notable that in everyday life, sexual arousal and the desire for sexual behavior is typically experienced particularly intensely, much more so than desire for tobacco or alcohol despite their stereotype as "addictions" (e.g., Hofman et al., 2012b). Persons also differ in their ability and need to cognitively appraise those experiences in an accurate manner, whether it is recognizing arousal as sexual or nonsexual (e.g., anger).

Individuals differ in their ability to organize their capacities and experiences to direct their behavior toward desired goals (rewards, reinforcements) and away from threatening circumstances. From a self-regulatory perspective, most persons are characterized by various values, standards, and principles that are associated with short- and long-term goals. In addition, a conscious or unconscious conflict can arise between urges or desire for approach behavior that can create a conflict between what an individual wants to do and what one believes they should do (realized or experience to different degrees). The experience of such conflicts typically triggers more active self-control attempts. Relative to their awareness of motivational and emotional states, some persons will feel impelled to gauge those particular states against personal/social standards or general life goals. Others will feel no or less intense conflict regarding the balance of motivators relative to consequences or long-term goals. Individual differences exist in the degree to which individuals experience such conflict as well as to the nature (variety and significance) of and commitment to those personal standards, values, and life goals. Clearly, some persons lack prosocial goals or values or they "discount" the potential for the degree of consequences of behavioral enactment or overvalue a more immediate gratification over other perceived (e.g., negative and/or long-term consequences).

For some people, self-regulation entails a preventive element; utilizing foresight and awareness of past motivated behavior, they can and do anticipate the problematic consequences of acting on motivators and engage in preventive self-control to minimize the potential elicitation and/or intensity of particular motivations or emotions. Alternatively, an individual's appraisal of the relative consequences or risk in the attempt to enact some motivation may be relatively deficient, compromised, or absent. Avoidance motivation can also play a role; to the degree that an individual experiences anxiety relative to particular consequences, motivated inhibition can also occur. To the degree that there is recognized

conflict between the impetus of motivations or emotions, there may be attempts to reconcile those; attempts may be made to manage the press/pull of motivations/emotions to delay or prevent their expression because of a potential cost in terms of other, more significant consequences. This is sometimes referred to as resistance to temptations; of note, resistance to desire for sexual behavior is among the highest of such urges. Hofmann and Kotabe (2012) identify the significance of a potential formation of an "intent" (or motivation) to resist a particular desire rather than simply enacting it; person's trait and state self-control repertoires may or may not include the conscious identification or expression of an intent not to act on a desire or may entertain ambivalence about possible enactment.

Persons are characterized by individual differences in their incentive or capacity (intent, energy, and/or skills) to manage such conflicts between motivators/emotions and values/consequences: they differ in their intent to adhere to values and standards and awareness/knowledge of varied strategies, and they differ in their ability or "energy" to enact strategies and/or to problem-solve when selected strategies appear to be initially unsuccessful, raising the "question" of alternative strategies. Ultimately, self-regulation comes down to suppression or prevention of behavioral enactment. However, as noted, self-regulation appears to function as a "strength" or "(moral) muscle" model and consumes limited psychological resources and becomes diminished from relative exertion. When a person's self-regulation capacity is limited or becomes further depleted, the individual will become less effective at other self-regulatory tasks. Thus, persons repeatedly challenged with sexual and nonsexual motivators, as well as other self-control situations, will episodically or chronically exist in a state of depleted self-regulation. However, with regular "practice," the capacity for self-regulation (like a muscle) increases in strength. Thus, those who fail to implement self-regulation fail to develop increased capacity for such self-control. At the same time, a consequence of some repeated attempts self-regulation (e.g., attempts at cognitive suppression of a representation or desire) can ultimately lead to diminished self-regulation and, subsequently, to the ultimate "appearance" or experience of such mental/emotional representations or desires.

Obviously, this is a dynamic process that occurs "in real time." It is influenced by differing phenomena. Motivators vary in intensity over time and situations. Self-control clearly has various state aspects as well, and motivation can affect relative depletion in self-regulation. DeYoung (2010) notes that even when persons consider a desired behavior over time, a combination of affective and environment cues can affect enactment and the reaction to either performing or not performing the behavior. As noted, self-regulation is "energy" and resource dependent, and recent efforts at self-regulation deplete available self-control capacities. Additional state conditions, particularly negative affect or mood-altering substances, affect self-regulation and EF; it impacts on the perceived significance of reconciling conflicts between values and "experienced needs". Most particularly, Inzlicht, Schmeichel, and Macrae (2014) argued that depletion leads most people to shift from "have to" goals to "want to" goals; depletion in existing capacities for self-regulation potentiates motivation for personally rewarding hedonistic activities (and the accompanying positive emotions). As they note, "Depletion however, is not simply less motivation overall. Rather, it is produced by lower motivation to engage in 'have-to' tasks and higher motivation to engage in 'want-to' tasks. Depletion stokes desire" (p. 131).

Situational factors can also impinge on self-regulation and problem-solving; both strong negative affect and alcohol can potentiate the behavioral impact of impulsive determinants on eating behavior while disrupting the behavioral impact of reflective determinants. Hofmann and Kotabe (2012) state, "Arguably the two most powerful preventive self-controls strategies can be found in situational and stimulus control, the avoidance of tempting situations or the removal of tempting stimuli from one' immediate environment" (p. 716). They note that research indicates that persons high in dispositional or trait self-control make more use of such preventive self-control in attempting to address their desires. However, regarding sexual offending, crudely, self-control can fail either because the impulses, desires, or temptations related to one or more motivators (individually or collectively) are too "strong" or "intense" or too many to restrain/inhibit/constrain or because capacities for self-control are too limited or too weak. In addition, from a more dynamic perspective, lower self-control (trait or dispositional) likely provides for the experience of increased strength of sexual and nonsexual impulses. Low self-control has been shown to be associated with poor dispositional and episodic sexual restraint in everyday life. Research by and review by Gailliot and Baumeister (2007) showed that individuals with low self-control were more likely to fail at stifling motivational (including sexual) thoughts, inhibiting their expressed willingness to engage in inappropriate sexual behavior. In addition, they obtained some evidence that the effects of diminished self-control were strongest among those with the strongest sexual desires.

How best to categorize the various predisposing nonsexual conditions that are most strongly related to sexual offending? The DSMs would suggest that maladaptive personality characteristics can be grouped into four categories: cognition (ways of perceiving and interpreting self, other people, and events), affectivity (motivation, range, intensity lability, and appropriateness of emotional response), interpersonal functioning, and impulse control. However, these domains clearly overlap and appear largely interrelated: cognitions influence affect, affect and cognition influence impulse control; and

interpersonal relations impact affect, cognitions, and impulse control. Similarly, from a more conceptual perspective, the constructs of motivation, executive functioning, and self-control/self-regulation also implicitly or explicitly overlap and/or interact with the construct of personality. Given such categorical and theoretical overlap, identified predisposing factors cannot be neatly separated into precise categories of cognition, affect, and interpersonal and/or impulse control. In addition, maladaptive behavior is larger than just that with implications for interpersonal functioning but relates to problematic functioning in other areas of life such as work (e.g., irresponsibility) and self-care (e.g., suicidal behavior). Consequently, while one can attempt to sort personality dispositions into the four categories of the DSM, the outcome of that endeavor would be quite artificial. In considering nonsexual predisposing conditions, it appears clear that those nonsexual dispositions likely involve varied and interacting combinations of conditions of personality, motivation, executive functioning, and self-regulation/self-control or as overlapping/interacting cognitions, affect, impulsivity, and interpersonal relations. Further, given the nature of "behavioral signatures," it is of value to acknowledge "facilitating" and specific situational or state factors that may relate to sexual offending.

Nonetheless, it makes sense to attempt to specify the central varied personality and related dimensions that appear to be theoretically and/or empirically linked to increased predisposition to sexual offending. An empirical basis for such personality and related dimensions exists: analyses of FFM dimensions related to antisocial behavior, analyses of externalizing spectrum behaviors, and the meta-analyses of risk factors for sexual offense recidivism of personality-based dimensions all inform what the nature of nonsexual personality and related dimensions might be. A simplistic framework for understanding human behavior would suggest that human activity could be reduced to a balance of desire or urges for rewarding experiences and/or fears of danger to self or punishment. Ultimately, all sexual offenses involve approach motivation of some sort in the presence of some deficient or lack of self-control or self-regulating elements, even for those sexual offenders characterized by ambivalence or "avoidance" pathways. Thus, there are nonsexual "motivators" that impel or urge a person to act in a particular manner and other nonsexual factors that represent deficiencies or failure to constrain or inhibit such behavior ("elements of disinhibition"). While some nonsexual personal predisposing factors might be strong enough to determine a sexual offense on their own, it seems more likely that various sets of such factors act in an additive/cumulative and even synergistic fashion, combining and augmenting one another in different ways across different situations to also converge in a resulting sexual offense. What seems most useful is to simply identify and consider particular personal dimensions (each of which could be considered aspects of motivation, executive functioning, and/or self-regulation/self-control) as motivators or elements of disinhibition and consider their potential and/or likely relationship to personality constellations in relation to incidents of and persisting sexual offending. It should be noted that this is not intended to be a comprehensive or exhaustive list but rather a suggestion of factors for which there is significant theoretical, explanatory, and/or empirical support. Finally, following (Mischel and Shoda 1995, 1998; Mischel, 2004) and related theories, situational, contextual, or triggering factors clearly exist which elicit and amplify to varying degrees personality "motivators" and/or augment or intensify personal dispositions (or both) and provide opportunities for the more pronounced manifestation of both sets of factors. Thus, following the notion of a behavioral signature, the identification of particular predispositions for particular action without specification of context obviously limits the explanatory value of the identified characteristics.

Several things are useful to consider relative to nonsexual factors related to sexual offending. First, the enactment of sexual behavior is clearly not an "automatic" phenomenon; the frequency of sexual dysfunction is so common that it has been identified as a significant public health problem (e.g., Lauman, Paik, & Rosen, 1999; Derogatis & Burnett, 2008). There is a high prevalence of sexual dysfunctions among men who indicate an interest in and desire for sexual behavior; various things commonly interfere with both sexual interest and sexual performance. In general, from both a biological perspective and an experiential one, numerous "threats" exist to "normative" sexual arousal or functioning. For sexual behavior to be enacted, both varying degrees of excitation/arousal t and relatively low levels of inhibitory mechanisms must be present. Obviously, the frequency of commercial advertisements for products related to increasing sexual interest and capacity (performance) provides some metric of the difficulty of initiating and enacting sexual behavior among the general population of males. Thus, the enactment of sexual behavior, including sexual assault, must overcome a variety of factors that commonly and/or frequently impede sexual desire and impair sexual functioning. Second, in light of potential nonsexual predispositions for sexual offending, one must consider why persons experiencing or manifesting such predispositions elect to "express" or "manifest" those issues (individually or collectively) end up enacting a sexual as opposed to some other violent behavior. Can nonsexual personal factors lead to a sexual offense in the absence of *any* specific or general sexual interest or motivation? That is, what type or degree of nonsexual personal dispositions leads someone who has no or little sexual interest in children or in adults in general to enact sexual offenses involving such victims, particularly ones involving force, distress from the victims, and likely leading to negative consequences for a perpetrator? Little information, theoretical or empirical, exists to explain why nonsexual-specific

motivators and elements of disinhibition on their own, given particular contexts, result in uniquely sexual forms of violent offending.

Currently, the available research would direct that nonsexual personality and related conditions do act as significant predisposing factors for sexual offending (either on their own or certainly in combination with sexual predisposing factors). As Meston and Buss (2007) pointed out, the primary reasons persons engage in sexual behavior involve physical, goal attainment, insecurity, and emotional factors. Similar to Malamuth's confluence model, the general literature suggests that violent behavior generally and sexual offending specifically is characterized by a multidimensional and cumulative nature. There are personal and related conditions which are potentially more specific to sexual offending which are subsumed to some degree by more general domains that are related to antisocial and violent behavior generally. Marshall and Barbaree (1990) emphasized that sexual offenders frequently met a number of psychological needs via sexual offending, theorizing "…the task for human males is to *acquire inhibitory control* over a biologically endowed *propensity for self-interest associated with a tendency to fuse sex and aggression*" (p.257, emphasis added). Hall and Hirschman (1992) proposed that the probability of sexual offending was crudely a function of the perceived benefits of sexual aggression (e.g., sexual gratification or pleasure) outweighing estimated threats to the perpetrator or to a victim; this was termed the threshold gradient.

Clearly, there appear to be two key dimensions, which can exist to varying degrees, with differing frequency and across greater or fewer situations for specific individuals. First, there appear to be primary motivational states and needs (experiential, affective, and attitudinal conditions) that, when activated, function as "pushes" or elicited "pulls" and thus serve as predisposing psychologically meaningful risk factors for sexual offending. Secondly and conversely, the presence of degrees of "disinhibition," some set of varied deficits in "constraint"—absence or degrees of lack of capacity or affinity for self-control, self-regulation, or inhibition (inhibitory deficits)—appears sufficient to allow sexual offending to occur even under conditions of minimal primary sexual and nonsexual motivational dispositions or states. In addition, there appear to be an additional set of contexts or facilitating conditions that might be unlikely to lead to sexual offending on their own but can greatly enhance the likelihood of one or both primary motivational factors leading to a sexual offense (e.g., alcohol/substance use, ADHD, lack of environmental restraints). Given the interrelationship of motivation and emotions, cognitions, interpersonal elements, and self-control of impulses (via, in part, executive functioning and/or self-regulation), it is somewhat artificial to "divide" or identify specific characteristics as if they were divorced from other, related dimensions. That is, most nonsexual predisposing conditions to sexual violence involve admixtures of multiple personality elements (Fig. 1).

Primary Motivational Dispositions, Affective and Attitudinal Conditions ("Motivators")

Motivation is a key aspect of human personality and functioning. Appetitive motivation represents urges that drive individuals toward desired and/or pleasurable events (or, rooted in anger, to relieve unpleasurable or distressing experiences); such motivation catches and directs attention, determining the direction, preoccupation, and persistence of behavior in the world. [Sexual arousal and gratification per se would appear to be the primary exemplar of that.] As noted, appeti-

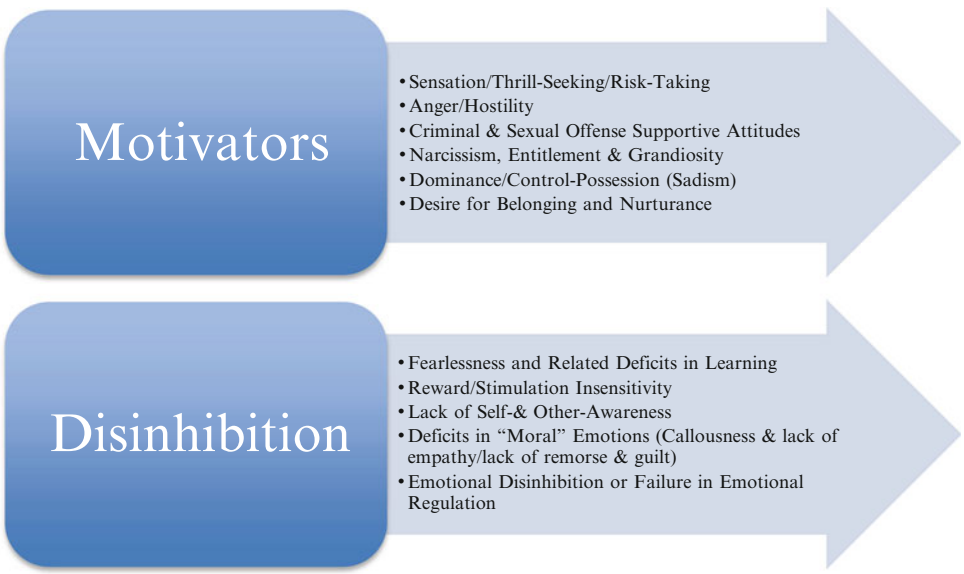

Fig. 1 Motivators and dimensions of disinhibition

tive motivations involve two dimensions. *Wanting* or desire refers to the motivational or incentive salience that makes the reward desirable; wanting transforms a reinforcer from a sensory representation into a desired reward capable of capturing attention, motivating behavior but which can eventually become unlinked from the hedonic element of liking. Somewhat in contrast, *liking* refers to the pleasurable, hedonic feelings experienced when a desired reward has been procured via behavior or imagination (Zhang et al., 2009). Significant individual differences exist relative to motivational conditions in terms of both wanting and liking. Persons are characterized by the variety of motivations that they experience as well as differences in the number of triggers/eliciting elements and degree of sensitivity (and responsivity) to internal and external cues (thresholds) leading to the initial intensity and duration of the motivational force; they also differ in the degree to which a gratification or satisfaction of motivation is rewarding and, subsequently, changes their expectancy for similar experiences in the future.

Motivation is typically perceived and "interpreted" when it has a conscious impact to cause a person to initiate approach behavior and is appraised or interpreted after enactment. Walters (2009) has argued for the primacy of "criminal thinking" in the enactment of criminal behavior; per his definition, such thinking is cognition designed to initiate and/or maintain the habitual violation of rules and laws. In particular, his model and data suggest that various "thinking styles" either potentiate or facilitate positive reinforcement before and after motivated antisocial behavior occurs. Criminal thinking has this affect by virtue of its influence on thinking styles, (criminal) values, attributions, self-efficacy for crime, outcome expectancies for crime, and criminal goals. An important distinction to keep in mind is that motivation is not always about what is perceived as "positive" affect per se; approach motivation also occurs when persons act on anger to inflict pain or harm on some, offending others, and/or in an effort to remove a violation of what "ought to be" (e.g., Carver & Harmon-Jones, 2009). In this vein, anger functions as motivation to restore some desired state. In a similar vein, attitudes about the nature of the world as it is and as it "should be" can also serve as approach motivations.

As indicated, among other dimensions, a sexual offense can result from a motivational impetus (a push/pull for reward or pleasure) or a motivational avoidance of some unpleasant, aversive state, attitudes related to privileging one's own desires or urges or defined by negative affectivity (particularly directed toward others). Such factors necessarily have to be ones that strongly impel or push a person to interact with another person via sexual behavior but in the service of a nonsexual motivation. Hofman et al. (2012a) reported that more enduring, high desire strength of appetitive motivators should increase the probability of behavior enactment, as should novel or dispositionally "exciting" stimuli. A number of factors [some of which might be likely to occur in individuals with particular life histories (e.g., of adversity)] would appear to possess sufficient "power," provide such a "push" or "urge," or be susceptible to a "pull" from relevant environmental stimuli. In addition to the individual differences noted above, the experience of one or more motivations is experienced contextually relative to the degree of presence and "strength" of one or more elements of disinhibition. Therefore, the relative lack of or deficiencies of inhibitors can further potentiate the more immediate or persistent pursuit of rewarding and/or pleasurable motivations and undermine the potential for delays in seeking gratification relative to longer-term goals.

In the context of Meston and Buss's (2007) research, factors that appear to possess a sufficient degree of motivational for persons to engage in sexual behavior include pleasure, stress reduction, experience-seeking, revenge, social status, utilitarian, self-esteem "boost" (under insecurity), and expressive communication (under emotional). An attempt to integrate the general psychological concepts and findings with the theoretical and empirical perspectives on sexual offending suggests that a number of motivators can be identified which singly or in combination appear sufficient to provide the basis for specific acts or episodes of sexual offending.

Sensation-Seeking/Thrill-Seeking/Risk-Taking

Again it is useful to note that numerous researchers have argued for a distinction between this condition and general impulsiveness (e.g., Cross et al., 2011; Derefinko et al., 2011; Burt & Simons, 2013). Zuckerman (1979) defined sensation-seeking as the need for varied, novel sensations and experiences and the willingness to take physical and social risk to obtain such experiences. A disposition for hedonistic sensation- or thrill-seeking (sometimes referred to as affective impulsivity) provides a personality-based motivation for risky, stimulating, and exciting behavior, which could include sexual behavior and particularly sexual behavior that would be regarded as novel, illegal, or immoral. Particular individuals experience the process of taking risks as highly pleasurable or rewarding, whether planned or not; a related dimension would be a lower threshold for the rewarding aspects of sensation-seeking and excitement. In addition, criminal behavior, including violent and sexual offending, provides an opportunity both for risk and potential immediate, albeit short-term reward; thus, such risky behaviors are more rewarding and motivating to high "thrill-seekers." From the perspective of the FFM and the UPPS, Miller et al. (2003) showed that sensation-seeking was one of the two most consistent of the four dimensions of "impulsivity" in predicting crime and violence. Joliffe and

Farrington (2009) showed that historical "high daring and risk-taking" were shown to be more related to later violence relative to other dimensions related to impulsiveness. Relative to self-reported impulsivity, Kirby and Finch (2010) identified thrill- and risk-seeking, impatiently pleasure seeking, and "happy-go-lucky" as key dispositional dimensions. As noted, Miller et al. (2003) found sensation-seeking was one of the most consistent dimensions in predicting externalizing behavior in general. Quay (1995) spoke a "need" to create excitement, adventure, and thrill-seeking behavior; Blackburn (2006) noted that evidence favoring an association between heightened stimulation-seeking and psychopathy has been consistent. Krueger et al. (2007a) identified excitement-seeking as a key facet of the ESD, sensation-seeking is strongly associated with externalizing behavior (e.g., Miller et al., 2003), and boldness was identified as a key dimension of psychopathy by Patrick et al. (2009). In addition, the intensity of high-approach-motivated positive affect reduces attentional focus and degrades EF. In addition as Burt and Simons (2013) point out, thrill or sensation-seeking likely is associated with some degree of offending versatility, such that repetition breeds habituation, while novel stimulation or situations may lead to new victims and/or types of offending behavior.

Hoyle, Fejfar, and Miller (2000) conducted a meta-analysis of personality and sexual behavior that determined that sensation-seeking was the strongest trait-level predictor of risky sexual behavior. Birthrong and Latzman (2014) found that positive urgency was uniquely associated with risk sexual behaviors. Porter et al. (2001; 2010) characterized a subset of sexual offenders whose primary motivation for sexual offending was thrill-seeking (particularly in the context of heightened boredom or low autonomic arousal and a select/generalized lack of empathy); that is, they have a propensity for exciting and risk situations that involve novelty and excitement, including the arousal that can precede and accompany violent behavior.

Anger/Hostility

A common emotional response to frustration, hurt, disappointment, and real or imagined threats is anger and its more generalized form, hostility. As a negative emotion, anger has both episodic and dispositional elements; certain types of situations commonly elicit displeasure ranging from irritation to rage, and individual differences exist in the frequency, pervasiveness, and intensity of angry feelings. Anger appears to be elicited by perceptions of threat or damage, including threats or "damage" to self-esteem; it is a common response to frustration, when some desired or potentially rewarding goal is thwarted, for example, by another person. Per Carver and Harmon-Jones (2004), "Anger often promotes an effort to remove the violation of what 'ought' to be, an effort to change the behavior of other" (p. 184). As a reactive response to internal or external stimulation, anger has been identified as falling into the category of approach motivation toward a – specific or generalized "offending" other, others, or life situation (e.g., Carver & Hampton-Jones, 2009). Anger and hostility are activating experiences such that angry/hostile persons are motivated to behave toward a perceived or displaced source relative to elicitation of their negative emotional experience; anger provides a "confidence" to act against a "perceived" threat. Hostility, as generalized anger, represents a heightened baseline in which provocation may be more minimal in terms of elicited reactive behavior; there appears to be a paranoid, suspicious, or distrusting basis to hostility. The experience of anger appears to be disinhibiting by increasing generalized arousal (transferable to sexual arousal) as well as by providing increased permission to act and by desensitizing an individual to both the immediate situation and future-like situations; it also primes cognitive schema or "scripts" related to anger-based aggression. That is, angry states lead to a tendency to appraise subsequent events in a manner consistent with earlier threat appraisals; thus, more frequent anger (e.g., from frustration) may lead to more pervasive and dispositional (intentional) anger and/or hostility. By facilitating attention to future-provoking events, the salience of such events may evolve. The relative intensity of anger/hostility can lead to increased self-absorption, narrowing the angry persons' cognitive processing and heightening the salience of more immediate (angry) goals. In addition, the generalized physiological arousal associated with anger states, like other arousals, can easily be displaced onto other targets or activities. Finally, intense anger, like other intense affective states, can act to compromise attentional focus to other aspects of EF.

Walters (1995) found that "willful hostility" was one of the two key dimensions of criminal thinking, while Miller et al. (2004) showed that the FFM dimension antagonism was associated with risky sexual behaviors. As noted, Knight and Prentky (1990) theorized that both generalized anger and more vindictive (retributory) anger were associated with rape. Hanson and Harris (2001) showed that negative affect, particularly anger, increased prior to sexual reoffending. In addition, Yates et al. (1983) found that anger induction led to greater disinhibition of sexual arousal to rape depictions; other research supports the notion that any form of generalized arousal can "inflame" or infuse sexual arousal and motivation.

Hostility can be viewed as the dispositional or "trait" form of anger. It is sometimes distinguished from anger as involving a persisting negative cognitive perception/evaluation of other persons or situations (a hostile attributional bias); intense or repeated anger can lead to more enduring attributions of blame or responsibility for real or imagined frustrations or "injury."

This can be viewed as "grievance thinking" per Thornton (2010), where persons feel easily wronged, suspicious of others, tend to ruminate angrily when feels wronged, and has difficulty accepting another's point of view. From the FFM perspective, hostility is viewed as persistent or frequent anger or irritability (often in response to perceived slights by others) or as mean or vengeful behavior. Persistent and enduring generalized hostility can lead to motivation to "punish" others based on the perception that "the world" or some specific subset of persons (e.g., females) have done them wrong or that children are "available" as potential vulnerable, attainable victims.

Significant levels of distrust and suspicions of others (e.g., a generalized paranoia) often characterize criminal and violent offenders. A common cognitive distortion is the fundamental attribution error, which involves blaming others for one's failures or misfortunes. However, as De Brito and Hodgins (2009b) point out, given the frequent early experiences of being raised in antisocial and/or abusive, neglectful homes, the subjective experience of persons with personality disorders (particularly ASPD) that the world is unfriendly and dangerous may not be "wholly irrational" (145). This characteristic reflects a dispositional orientation that affects perspective-taking (misperceiving the actions and motivations of others) and expectancies of negative experiences with other people. The two most recent meta-analyses have identified "grievance thinking" as risk factor, where an individual perceives that others are responsible for their problems.

Criminal and Sexual Offense-Supportive Attitudes

Attitudes are typically understood as persisting personal beliefs or evaluations of people, things, or events with value (positive-negative, conflicted) attached to them; they are a sense of how things should be and are potentially motivational in that regard. Attitudes are thus understood as admixtures of thoughts and feelings that operate both explicitly (consciously) and implicitly (out of awareness). Critically, attitudes provide significant filters on perception and other aspects of information processing. Antisocial attitudes have been found to be among the most potent of criminogenic needs among criminal offenders generally (e.g., Andrews & Bonta, 2006). Walters (2009) has argued for the primacy of "criminal thinking" in the enactment of criminal behavior; per his definition, such thinking is cognition designed to initiate and/or maintain the habitual violation of rules and laws.

Attitudes about one's self and nature of the world as well as specifically about females and children would provide motivation toward engaging in sexual behavior with such individuals. Regarding persons who sexually offend against children, Ward and Keenan (1999) identified several implicit theories or cognitive distortions that supported such offending: that children are sexual objects, that sexual activity with children does not cause harm (and may be beneficial), that children benefit from sexual contact and are compliant in sexual offending, and that in a dangerous world (e.g., rejecting), children are more likely to accept an offender and provide him acceptance and affection would all provide specific predisposing factors toward sexual offending. In addition, Ward and Keenan identified that entitlement and that sexual behavior is uncontrollable are related to sexual offending against children; these appear to be more general attitudes that could apply to such offending. In terms of persons who sexually offend against adolescents and older persons, Mann and Hollin (2007) identified five potential schemas related to rapists of adolescents and older persons. Four appear to be more general violent-supportive attitudes: need for control over others, entitlement, grievance (leading to retaliation), and the view of self as victim. In contrast, one proposed schema seems specifically related to sexual assault of females, namely, disrespect for (certain) women. This last cognition is one of the "bundle" of beliefs and attitudes subsumed by the Malamuth (confluence) factor of hostile masculinity as a primary factor in sexual assaults of female victims; other studies have also found a relationship between a hostile or mistrusting attitude toward women (e.g., viewing women as both malicious and untrustworthy in their relationships with males) and sexual recidivism. Polaschek and Ward (2002) proposed and tested five implicit theories relative to rapists. Several appear to be specific to sexual assaults against females: women are sex objects (constantly sexually receptive), women are dangerous (out to harm men), and male sex drive is uncontrollable. Two of the five appear to be more general but were related to rape behavior: entitlement (meeting one's needs on demand, specifically the right to have sex whether a victim was consenting or not) and dangerous world (in general, people are viewed as dangerous, a more generally paranoid view of others). There is obvious convergence of the rape-supportive attitudes found by the different investigators as well as in relation to sexual offending against children; both sets of attitudes include a primacy on egocentrism, a view of the world as negative/hostile, and views of both women and children as sexualized or sex objects.

In contrast to attitudes that motivate specific sexual offending behaviors, additionally, a number of writers have written regarding that distorted attitudes supportive of sexual offending may be invoked to serve as justification and reinforcement for sexual offending subsequent to an offense: minimizing the nature (e.g., force) and consequences of the offense (e.g., harm to the victim), blaming others and situations

for an assault, and/or making attributions that they themselves lack the capacity to control their motivations. Leeuven et al. (2013) showed that several models of self-serving cognitions [(primary: self-centered) and secondary (minimizing, blaming others, and assuming the worst)] are related to antisocial behavior (albeit via callous-emotional traits).

Recently, Helmus, Hanson, Babchishin, and Mann (2012) conducted a meta-analysis of attitudes supportive of sexual offending. They noted that many of the attitudes that potentially contribute to sexual offending are present in the general population, including rape attitudes and the sexualization of children, suggesting some general sociocultural "support." Their results demonstrated a consistent relationship of such beliefs to sexual reoffending, particularly when particular attitudes were matched to the type of offender (e.g., generally, specific beliefs were associated with sexual offending against youth or against adults); it was noted that measured attitudes were better predictors of sexual offense recidivism for child molesters than for rapists. Helmus et al. also pointed out that attitudes supportive of sexual offending were also related to other constructs and/or factors previously related to sexual offending (e.g., they overlap and/or co-occur).

Narcissism, Entitlement, and Grandiosity

Narcissism has unfortunately been misunderstood in the construction of the related personality disorder in the DSMs (e.g., Miller, Widiger, & Campbell, 2010). Conceptually, healthy narcissism relates to generally realistic self-awareness, self-appraisal, and regulated affect relative to self-evaluation; self-esteem is largely accurate and proportional to one's achievements in important life areas. In contrast, pathological narcissism (abnormal narcissism) is understood as expressed or manifest excessive self-regard in response to perceived or experienced deficits regarding one's self. Pathological narcissism is compensatory and defensive, thus, the terms "threatened egotism" and "narcissistic injury," when an individual's veil of manifested grandiosity is threatened or exposed by life events. Typically, the narcissistic individual's exaggerated sense of self (relative to his/her life circumstances) is rooted in self-devaluation, inadequacy, and shame. Such pathological narcissism is associated with a sense of invulnerability, such that social norms/rules do not apply to him, impaired capacity for empathy, and genuine commitment to others.[4] Such persons may engage in "grandiose" fantasies about others that prop up or reassure their fragile or low self-esteem but are indifferent to or unaware of the experience of others who may be the object of desire. As Logan noted, narcissism is typically accompanied by other core dimensions such as hypersensitivity, low frustration tolerance, strong aggression, entitlement, and problems with regulation of negative emotions; in addition, manipulation, deception, and control of others "serve" narcissism or grandiosity in those who feel essentially inadequate and lacking. Meloy (2003) noted that a psychopathic individual's apparent grandiosity is a function of the disparity between his view of himself and the facts of his life and then is further maintained (reinforced) through violence and the control and behavioral devaluation of others. Vaughan, DeLisi, Beaver, Wright, and Howard (2007) showed narcissism demonstrated significant overlap with measures of self-control, concluding that "…self-control is likely subsumed by narcissism" (p. 816).

Numerous authorities have linked narcissism to entitlement (e.g., APA, 2013; Walters, 2009; Patrick et al., 2009) and to aggression and violence. Miller et al. (2010), having reviewed the available literature on narcissism, found a strong association between greater narcissism and various forms of aggression, in both provoked and non-provoked circumstances; they also found that narcissism was associated with a callous lack of concern for the feelings and needs of others. For these and related reasons, narcissism has a particularly negative impact on interpersonal relationships over time. Campbell, Bonacci, Shelton, Exline, and Bushman (2004) showed that psychological entitlement had a pervasive impact on social behavior (including aggression and exploitative relationships) and was stable over time. Narcissism is associated with a wide range of externalizing spectrum behaviors including alcohol abuse and antisocial behavior via enhanced appetitive and/or reward-seeking disposition (e.g., Miller et al., 2010). Baumeister et al. (1996) also suggested that "higher" self-esteem and/or grandiosity/narcissism had a "dark side" that served to potentiate violence potential. Specifically, they identified that a considerable degree of violence is a result of "threatened egotism," where relatively favorable views of oneself (albeit not necessarily "true" ones) are disputed or devalued by persons or circumstances. Such "threatened egotism" relative to a fragile or threatened self-concept leads to an externalization of hurt/anger toward another as a means for compensating for the psychological threat. Thus, violence was viewed as often not in proportion to actual abilities or qualities that encounter an "ego threat." Baumeister et al. stated:

> Preliminary evidence portrays rapists as having firm beliefs in male superiority and often elaborate beliefs in their own individual superiority, all of which is contrary to the low self-esteem view. Some observations support the view that ego threats figure prominently in the events leading up to rape. In many cases, however, the victim was not the source of the ego threat. (p. 18)

In addition, evidence suggested that perceived higher self-regard was a correlate of aggression so that the experience and expression of anger among narcissistic individuals

[4] Some writers have distinguished between the truly grandiose narcissist and the "vulnerable" narcissists.

increased as their self-reported self-esteem increased. Later, Baumeister et al. (2002) found that narcissism might be a key factor in attitudes and behavior related to the deprivation of sexual options (e.g., rejection, indifference); such circumstances might be moderated by narcissism to lead to sexual offending, and they identified this phenomenon as rape as a form of narcissistic reactance. However, other research has shown that narcissistic characteristics are related to proactive aggression in the absence of ego threat. A common link has been observed between entitlement and a sexually supportive attitude such that persons feel that sexual arousal "entitles" a person to act to gratify that arousal. In turn, this links entitlement to exploitation of an "available" victim for motivated gratification. Miller et al. (2004) showed that the FFM dimension low agreeableness (egocentric) was associated with risky sexual behaviors. Utilizing a domain-specific measure of sexual narcissism, Widman and McNulty (2010) showed that higher scores on the measure were associated with specific types of sexual aggression and the likelihood of future sexual aggression. Eher, Rettenberger, Matthes, and Schilling (2010) found that narcissistic personality traits offered incremental predictive power above static risk factors for sexual reoffending. As noted, Esbec and Echeburua (2010) and Dunsieth et al. (2004) identified that narcissism/entitlement as a trait or a disorder is associated with violence and sexual offending.

Entitlement refers to the characteristic belief that a person should receive special treatment or that others will/should automatically comply with his or her expectations. Walters (2009) identified entitlement as a key facet of criminal thinking, the belief that for personal gain/reward, one is entitled to violate the rights of other and the rules of society. Such deficits in learning from experience or consequential learning, allow individuals to act on immediate urges or motivation for pleasure without evaluating or considering the implications of their actions for themselves or for others. Entitlement often accompanies narcissism but also exists independently, often as a result of experiences of deprivation or devaluation. Other persons are typically objectified and viewed as means to gratify oneself. Such egocentrism often involves self-gratification through the emotional and physical use of others. According to Meloy (2003):

> For some offenders, this is a function of narcissism or grandiosity while for other it is a more hostile entitlement in the sense that they believe that because of their own life history they are 'owed' what they want from select others… .(p. 2)

Thus, such individuals believe that they are entitled to obtain sexual gratification from others due to their own past experiences of mistreatment. Hanson et al. (1994) found that sexual offenders were characterized by specific sexual entitlement whereby an individual believes or acts as if he is permitted to or it is his right to engage in sexual behavior with whomever he wants. Relatedly, they may believe that they should have sex whenever they "need" it and/or that others should oblige a man's sexual needs. Typically, they view other persons as objects for sexual gratification and, for a variety of reasons, experience themselves as "entitled" to use those victims for their own sexual gratification.

Blame externalization can be understood as a manifestation of a narcissistic or entitled orientation toward the world as well as a violence-supportive attitude or a manifestation of chronic anger/hostility; "good events" are attributed to oneself, while "bad events" are attributed to others and used to justify past or further violent offending.

Dominance/Control Possession (Sadism)

A press or need (motivation) for dominance (control/possession or esteem) via sexual offending may be rooted in frustration/anger or anxiety about anticipated or real rejections of potential sexual partners or even more general circumstances. Often related to a narcissistic orientation toward the world, persons must control others to feel as if the world is predictable. Hedonic dominance involves obtaining pleasure to influence or control others and a rearward in use of seduction or charm to achieve one's ends. Affectively, dispositional fearlessness (e.g., boldness or fearless dominance) is related to persistence in maladaptive behavior, including behavior that is harmful to others and that was or is rewarding even when potential consequences for "punishment" increase or become more probable. In addition, dominance motivation may be triggered or heightened by experiences of external "rule imposition" or social consequences, leading to a motivation to violate such rules or potential sanctions. Grieger, Hosser, and Schmidt (2012) found dominance (forceful, striving for goals) was associated with violent recidivism. Fearless dominance was strongly associated with sensation-seeking. Krueger et al. (2007a) identified rebelliousness as a key facet of ES. Walters (2009) identified power orientation as a key facet of criminal thinking, referring to a desire for personal power and control over others. Tracy and Robins (2003) suggested that individuals protect themselves against feelings of inferiority and shame by externalizing blame for their failures, which leads to feelings of hostility and anger toward other people. Donellan et al. (2005) found a robust relation between low self-esteem and externalizing problems across methods, nationalities, and age groups. In addition, they showed that the effect of self-esteem on aggression was independent of narcissism. It has been hypothesized that persons with low self-esteem turn to aggression as an alternative source of potential esteem or, similarly, that individuals with low self-esteem actively dominate or aggress on others in an attempt to raise their self-esteem.

Dominance via sexual behavior of adults or children can more generally provide a sense of esteem, control, or retaliation that can be rewarding, particularly for individuals who feel inadequate. Groth (1979) in describing the power rapist

suggested, "Sexuality becomes a means of compensating for underlying feelings of inadequacy and serves to express issues mastery, strength, control, authority, identify and capability. His aim is to capture and control his victim" (p. 25). He also suggested that coerced sexuality could be a means of affirming masculinity or more generally personhood. "Fearless dominance" has been identified as a key trait in studies of self-reported psychopathy and related to narcissism and low behavioral inhibition (such as low fear or distress; Witt et al., 2009).

A related dimension to be considered along with the motivation for dominance and control is sadism; in addition, sadism also appears to have roots in motivating aspects of anger and hostility. Generally, sadism goes beyond the mere expression of just dominance/control and anger or hostility to the experience of pleasure from both "seizing" control and associated gratification from imposed humiliation or the callous feeling of "power" over another to the pleasure derived from observing or inflicting pain, discomfort, or devaluation on another. While some sadistic individuals obtain pleasure in the actual enactment of pain and suffering upon others, sadism does not always involve the use of physical aggression or violence; sadistic individuals also express angry or hostile behaviors not just for a perceived sense of retaliation but to experience the pleasure of humiliating others and achieving a sense of power and control over them. Kirsch and Becker (2007) also suggested that deficits in emotion recognition and emotional experience are characteristic of both persons elevated in psychopathy and sadism. In addition, Buckels et al. (2013) identified that "everyday" or subclinical sadistic persons were particularly inclined to "work for" the opportunity to hurt an innocent person. Mokros, Osterheider, Hucker, and Nitschke (2011) showed that affective deficits in combination with behavioral disinhibition (associated with psychopathy) were precursors for sexually sadistic conduct. Similarly, Woodworth et al. (2013) found that sexual offenders who were high in psychopathy were significantly more likely to be characterized by a sadistic paraphilia. Thus, sadism appears to be multifactorial but "intercorrelated" with other personality dimensions, involving, for example, differing degrees of approach motivation for dominance/control and anger/hostility.

Desire for Belonging and Nurturance

Aspects of belonging and social relatedness (e.g., emotional loneliness, fears of intimacy) have been identified by several authors as presumably related to sexual offending (e.g., Bumby & Hansen, 1997; Marshall, 1989). This has been based on observations that sexual offenders appear to have difficulty developing and maintaining "intimate" relationships with age-appropriate adults. In turn, this "difficulty" has been focused on theorized distal attachment deficits and proximal limitations in social competence. However, as Ward et al. (2006) pointed out, a "theoretically persuasive" explanation of the relationship between such interpersonal deficits and sexual offending has been lacking. Yet it seems clear that both primary and secondary predisposing conditions related to sexual offending exist. Krueger et al. (2007a) identified alienation as a key facet of ES. Empirically, various measures of lacking emotional intimate or conflicted relationships with adults have been identified as a risk factor for sexual offending (e.g., Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2004; Mann et al., 2010).

Murray (1938) identified the human "need" for affiliation, to be close and loyal to another person, pleasing them, and winning their friendship and attention; Maslow (1954) too identified belonging as a key in the hierarchy of human psychogenic needs. From a somewhat different perspective, Bowlby (1969) spoke of the power of early attachments to form templates for relationship patterns. From these early perspectives, it was posited that most individuals are powerfully motivated for acceptance, approval and a sense of belonging to one or more people. Cloninger (1987, Cloninger, Svrakic, & Przybeck, 1993) discussed "reward dependence" as a key dimension of personality, where, in part, persons who were high on this biological/temperamental dimension were often particularly high in their need for social approval and were socially dependent. In the absence of genuine approval and acceptance, he suggested that persons high in reward dependence would substitute other potentially hedonic experiences, including sexual behavior and substance use. More recently, Baumeister and Leary (1995) identified the need to belong as a fundamental human motivation; they defined this need for belonging as a need for frequent, non-aversive interactions (free from conflict and low in negative affect accompanied by a perception that the interpersonal relationship or bond has some stability and a positive affective component) within an ongoing relational bond. They viewed persons as driven or motivated to establish and sustain a sense of belonging, with some level of intimacy and shared experiences. Baumeister and Leary noted that social attachments can vary greatly in their depth, so that even minimal contact can create a sense or perception of attachment and belonging as well as the perception or feeling of being cared for or comforted by the notion that one is "accepted," "approved," and "connected" to another. Consequently, obtaining or perceiving that one belongs to another/others is reinforcing. Belongingness typically generates positive affect; the absence or end of belongingness is associated with negative affect, including both depression and anxiety. Thus, individuals who lack the personality characteristics that typically lead to affiliation and belonging (e.g., social anxiety, rejection sensitivity) may experience heightened loneliness; their motivations to affiliate are fueled by both the secondary pain of being isolated and disconnected and the primary motivation to experience a sense of belonging.

Further, the motivation for belonging can become conflicted and, over time, ebbs and flows of expectancies for positive experiences and perceptions of negative experiences leading to expectancies and experiences of interpersonal instability (e.g., idealization and devaluation). In addition, as actual and imagined experiences of social rejection, alienation, and detachment occur, the motivation to belong may also change over time, sometimes being ignored and at other times being potentiated and activated. In short, various aspects related to the motivation for belongingness can serve as a predisposing dimension to sexual offending, particularly when that impetus or desire has been frustrated acutely or chronically. For persons who have experience or perceived chronic social rejection or even a lack of acceptance, they may experience extended periods of alienation and/or adopt a manner of social detachment or isolation. However, like other motivational factors, the desire or urge to belong likely persists.

It appears that select sexual offenders seek out interactions with adults, adolescents, and children out of a desire to belong. Unable or limited for various reasons to develop or maintain satisfying relationships with age-appropriate peers, they seek to find a sense of belonging with age-inappropriate persons or through a variety of inappropriate means. To the extent, an individual perceives or desires to belong to an inappropriate or disinterested partner, and they may engage in sexual or sexualized behavior as a means of experiencing a "positive" interaction (from the perspective of the offender) that they believe may have or will have relative stability. In the case of certain sexual assaults, sexual behavior can be viewed as a crude attempt to establish a connection and potential relationship with another person (a victim albeit) or as a means of shared experience or acceptance.

Even a cursory review of the identified set of likely motivators would suggest that there will be a high degree to likely overlap among persons who are prone to violence and sexual offending specifically. Theoretically, all involve admixtures of cognitions, motivation (arousal to goal-directed behavior), and accompanying affects, and as such, combinations of those psychological elements would likely be juxtaposed and additive in leading to behavioral enactments. As noted previously and per other available research, there appears to be significant validation of the varying degrees of intercorrelation among such dimensions.

Primary Deficits in Self-Control Related to Sexual Offending: "Disinhibition"

With varying degrees of consciousness, virtually all persons are motivated to pursue appetitive motivations, both everyday temptations (e.g., a particular food, nicotine, caffeine, etc.) and those urges with potentially more significant, longer-term implications (achievement, risk-taking, retaliation). It also seems clear that dispositionally, developmentally, and/or by situations, individual differences exist among persons in the intent and capacity to delay an immediate approach for gratification of motivation/emotion via self-regulation or self-control. Per Baumeister (1998), under-regulation as a failure of self-management occurs when "willpower" or self-control is inadequate (in terms of the range and "strength" of self-regulation mechanisms) to override unwanted thoughts, emotions, or motivations (impulses). However, self-regulation failure is not an unusual event; it is a core feature of many significant "everyday" personal problems: overeating, nicotine or alcohol use, and/or the expression of anger. Certain conditions and issues appear to readily undermine such self-control by way of failures to transcend temptation/urges, negative moods, and resource/skill deficits. In daily life, as Heatherton and Wagner (2011) noted, the most common circumstances under which self-regulation appears to fail in everyday life are when people experience temptations or urges as relatively overwhelming or when controls are impaired or deficient. Desires and urges of some strength are part of everyday life; per Hofman et al. (2012b), people feel some desire about half the time they are awake, and half of these desires were viewed as conflicting with other goals, values, or motivations. Unresisted urges lead to behavioral enactment; just less than half of these urges were "resisted." However, notably, personal resistance or self-management dramatically lowered enactment of urges. The strongest urges were more difficult to resist and more likely to be enacted than the weaker ones but with resistance/management, "indicating that not only did people often resist so-called inevitable desires, but they were surprisingly successful when they did" (p. 1330). Thus, regarding more significant issues, involving high potency gratifications of liking and/or wanting, many people appear capable of managing both frequently and repeatedly to transcend or resolve conflicts between potent motivators and potential consequences of acting upon those motivators. Thus, most people do not commit criminal behaviors in terms of seeking gratifications from the possessions or bodies of others or in seeking harm of others. Plainly, in everyday life, despite the potency of potential sexual gratification or personal satisfaction from enacting sexual behavior, generally, an overwhelming number of persons are relatively successful at resisting sexual urges that might cause a variety of problematic consequences. Thus, for most people, the potential nature of resistance or conflict about acting on sexual desires is quite well managed, regulated, and controlled. Yet clearly, like other criminal and violent behavior, some persons are either more responsive to both sexual and nonsexual motivators or experience significant and sometimes repeated deficits in managing those experiences of impulse and desire. These represent far more serious failures of self-control, both in terms of the

consequences to victims and the potential implications for the perpetrators.

Consequently, in addition to the potency and interaction of motivators, a variety of issues related to the absence of or relative deficiencies in EF, personality, and self-control could be understood as factors of *disinhibition*. Relative to antisocial behavior, including violent and sexual behavior, it represents the degree and factors by which prosocial behavior is less likely to arise. Disinhibition appears to reflect the relative absence of constraining and/or prosocial elements of EF, personality, and self-regulation (e.g., absent or diminished inhibitions); they represent primary deficits in cognitive (information processing) and personality dimensions (deficits and dysfunctions in emotional experiencing) that underlie and interact to create problems in EF and self-control related to aspects of social attachment. The occurrence of disinhibition should be understood as a potential function of multiple cognitive and affective factors both sequentially and simultaneously that lead to enactment of behaviors that have undesirable consequences for an individual and/or others. Conceptually and empirically, these factors seem likely to be correlated and interrelated so that it is likely that they occur more commonly together than in isolation. Research would suggest that increased sensitivity to and reactivity to novelty and intensity (or "degree of arousal") to internal or external stimuli would create particular predisposition for disinhibition. A combination of and/or even just some increase in factors of disinhibition would appear sufficient to allow sexual offending to occur even under conditions of relatively minimal primary sexual and nonsexual motivational dispositions or states, particularly in select situational contexts. Yet without some press of motivators (either sexual or nonsexual), dimensions of disinhibition would probably not be sufficient on its own to lead to violence or sexual offending. However, when motivators are activated and impelling behavior, disinhibition represents a relative lack of modulation of the push of primary motivators.

Disinhibition is related to but different from impulsivity per se. Impulsivity per available research reflects the juxtaposition or interaction of motivators and deficits in inhibition. Burt and Simons (2013) demonstrated that thrill-seeking was distinct from self-control as a factor in risky and criminal behavior. A consistent finding identifies that particular individuals are characterized by a heightened "general" and "behavioral" of "lifestyle" impulsivity and show marked relatively persistent and/or pervasive immediate action in the face of prepotent or dominant motivators that appear to offer immediate rewards or emotional gratification. As the UPPS model suggests, general impulsivity consists of both motivating elements [urgency (positive and negative), sensation-seeking] and disinhibition, namely, the absence of inhibiting influences (premeditation and perseverance/persistence). Persons high on individual difference in impulsivity are predisposed to act on the spur of the moment in response to relatively strong or immediate potentially rewarding situations (or affective experiences) without consideration for potential outcomes. Generalized impulsivity is associated with a lack of concern for or perseverance in self-management, lack of long-term goals, and irresponsibility; such persons are characterized by acting upon immediate needs and feelings. As a result, generally impulsive individual fails to follow through on (1) existing commitments to provide for others or to honor normative obligations (social roles or responsibilities) or (2) anticipated obligations to one's own best longer-term interest (rules/social expectations). So-called lifestyle impulsivity also has the effect of increasing access to situations involving other similar individuals and, as a result, access to vulnerable potential victims, both adults and children. In particular, generalized impulsivity leads to failing to avoid situations that entail greater opportunities and potential for enacting sexual gratification and offending. Persons high in generalized impulsivity generally and repeatedly fail to engage in "preventative" interventions relative to the implications of desired motivators.

Joliffe and Farrington (2009) showed that approximately 75 % of violent offenders were characterized by "historical" impulsiveness, significantly more than nonviolent offenders. As noted previously, Whiteside and Lynam (2001) identified that "impulsivity" (per the FFM dimensions) had three subscales in addition to sensation-seeking: urgency, a lack of premeditation, and a lack of perseverance (effortful control); Miller et al. (2003) showed that simple urgency and a lack of premeditation (deficient ability to consider possible consequences of one's behavior before acting) were the strongest predictors of aggression. Relative to self-reported impulsivity, lack of preparation, carelessness, and impetuousness were identified as key dimensions (Kirby & Finch, 2010). Walters (1995) found that one of the two key dimensions of criminal thinking was simply a lack of thoughtfulness (e.g., a lack of attention to one's experience/psychological mindedness). Generalized impulsivity is often accompanied by a clear lack of planning and greater intoxication (Reidy, Shelly-Tremblay, & Lilienfeld, 2011). In addition, other research has demonstrated that persons experiencing strong "positive" emotions (e.g., increased sexual arousal) are also characterized by increased impulsivity, particularly the dimension of urgency (e.g., Muhatdie et al., 2013). Johnson et al. (2013) also showed increased emotional-reactive impulsivity was associated with both externalizing and internalizing symptoms and that non-emotion-relevant impulsivity was associated with alcohol problems. In a large representative sample, Chamorro et al. (2012) found a simple measure of impulsivity was associated with a set of behaviors that could be dangerous to others. Individuals higher in impulsivity were more likely to engage in behaviors reflecting behavior disinhibition, attentional deficits, and lack of planning including starting fights, perpetrating domestic violence, and trying to hurt others. Notably, the

most common behavior associated with impulsivity was "engaging in quick sexual relationship without thinking about the consequences" (p. 6) which was three times greater in impulsive versus non-impulsive persons. Similarly, Hoyle et al. (2000) conducted a meta-analysis of personality and sexual behavior that determined that impulsivity was the second strongest trait-level predictor of risky sexual behavior. Cyders and Coskunpinar (2011) showed that urgency is a significant predictor of risky behavior, independent of frequency/intensity of emotions; in addition, urgency predicted above and beyond the additive and interactive effects of lack of premeditation and frequency/intensity of emotions. DeLisi and Vaughan (2007) found that career criminals have significantly lower levels of self-control. Derefinko et al. (2012) showed that (in addition to sensation-seeking) a lack of premeditation was particularly important in predicting general violence. Grieger et al. (2012) found that overall deficits in self-control were more strongly associated with violence as opposed to criminal recidivism; sexual offenders were distinguished from other criminal offenders by low scores on all forms of self-control and in particular effortful control. Love (2006) reported that their analyses found "illicit sexual behaviors are positively correlated with criminal behaviors providing support for Self-Control Theory. Furthermore, the analyses of this data support that low self-control is a predictor of illicit sexual behaviors and crime" (p. 505).

No comprehensive or coherent model of disinhibition appears to exist, but varied lines of research provide frameworks for obtaining an increased appreciation of the numerous factors or dimensions that likely contribute to varying degrees of disinhibition or failure to desist in undesirable behavior. Factors of "disinhibitions" are one or more structural psychological elements and/or dispositional processes or states that result in an individual having absent or, more typically, reduced capability to recognize and manage urges, desires, temptations, and impulses (or diminished application of those capabilities). As motivators and emotions occur on both conscious and unconscious levels, so can such deficits of self-regulation/self-control (via environmental or physiological elicitation).

Bottom-Up and Top-Down Processes in Disinhibition: Deficits in Executive Functioning and Self-Control Related to Sexual Offending

Currently, there are two primary perspectives that provide a partial theoretical framework for considering key elements of disinhibition. Barkley's (2012a) proposed core domains of EF provide the "scaffolding" of the largely cognitive elements that create the potential for self-control and, in their relative or complete absence, degrees of disinhibition. Some degree of self-consciousness or awareness of and attention to one's self-experience is the starting point of EF; this would range from virtually no self-consciousness of one's "person" or "experience" to higher degrees of psychological mindedness. Only with such awareness or attentional capacity (e.g., of urges related to motivators or emotions) can there be some degree of cognitive or "executive" inhibition that allows an individual to "pause" a reflexive, automatic, or immediate, often prepotent, reaction to internal and external stimulation; such acute inhibition of an immediate response creates the opportunity for some consideration of responding. Nonverbal working memory (WM #1) allows recollection of past (learned) experiences as multisensory mental representations (particularly visual imagery) for hindsight; it also creates the capacity to "view" potential behavior in one's mind for foresight in imagining the hypothetical future based on an experienced past. Per Barkley, EF via self-awareness and nonverbal working memory also includes the opportunity for "appraisal" of motivations and emotions and potential conflict among them; such a process allows for modulation of arousal and related experiences. Motivational and affective appraisal can serve as a "metric" for considering costs and benefits of possible courses of action relative to several potential goals (e.g., distal for proximal). Problem-solving involves analyzing one's experiences and features of one's environment in the context of one's past behavior and current goals to develop plans for a particular goal-directed action, by weighing pros and cons, anticipating potential obstacles and then making choices regarding weighed goals and behavioral enactments. Generally, problem-focused coping (PS) reflect EF-related strategies in the face of provocation and arousal, particularly in the identification of problems and appropriate skills to manage the source of those reactions. PS involves perceiving, defining, and appraising problematic, acute, or recurring situations or "a life episode" (e.g., cognitive reappraisal) in ways that they can be confronted and managed; they also involve decision-making regarding the various specific strategies or tactics to both address one's arousal experience as well as the situation. Identified issues in problem-solving involves (a) deficits in problem recognition, (b) a lack of consequential (means-end) thinking (e.g., failing to think through potential consequences of actions, particularly longer-term results), and (c) difficulties generating a range of reasonable options. Finally, to the extent that it is present, verbal working memory (WM #2) as "self-talk" or private speech can serve as a means to question oneself in an unfamiliar or challenging situation, "mental discussion" of conflicts between short- and long-term interests, and of self-guidance through behavioral enactment. Of note, the execution of working memory, arousal appraisal, and problem-solving each requires the ability to focus and sustain attention of multiple psychological elements.

Clearly, Barkley's model provides a largely cognitive, information-processing approach to EF. However, it provides a

means of highlight potential deficits that will affect the experience and potential control of motivators. Persons who lack self-awareness are persons who would be dramatically influenced by automatic, prepotent motivations and emotions and would act relatively immediately to gratify such urges and impulses; there would be no pause or possibility of premeditation; they would lack "executive attention." Individuals with deficits in nonverbal working memory, while perhaps capable of being aware of motivations and emotions, would manifest difficulty in recognizing and interpreting (making sense) of arousal experiences; effectively they would not benefit from past experiences, they would have difficulty picturing the future after a behavior (and potential consequences), and they may not be particularly capable of learning from such experiences (relative to storing them in longer-term memory). Verbal working memory deficits would limit both premeditation of conflicts between arousal experiences and differing aspects of self-guidance that might slow behavioral enactment of urges and impulses. Deficits in nonverbal and verbal memory would also limit one's capacity to "process" arousal experiences and limit or prevent any "cost-benefit" analysis of conflicting interests and motivators, let alone to modulate the initial experience and related arousal created by conflicting interests and motivators. A lack of or compromised ability to modulate arousal experiences would also allow impulses and urges to manifest in behavioral enactment in a relatively "pure" form with no dampening of intensity or duration.

Disinhibition From a Self-Regulation Perspective

From a "self-regulation" perspective, Hofmann and Kotabe (2012) proposed what can be referred to as preventive-interventive model of self-regulation (PIMSR) which identifies several basic conceptual components to be considered; the interventive elements relate to steps that lead up to the successful or unsuccessful use of "willpower" in the "heat of the moment," while the preventive elements relate to the use of "anticipatory strategies" to enhance self-control. From their perspective, Hofmann and Kotabe suggest that self-control can only occur when a given "desire" or motivator turns into a *temptation*, defined as degree to which the behavior impelled by the desire would be "at odds" with a person's value system and (self-regulatory) goal standards; thus, self-control is only initiated by some experienced conflict between a desire for or to do something and potential consequences of related actions. Hofmann and Kotabe invoke constructs of motivational control and "volition;" (they consider that the former relates to the formation of some intention to resist a desire via self-control and the latter refers to the capacity to control and persistence of efforts to control. In addition, Hofmann and Kotabe also identify "opportunity constraints" as external factors outside of a person's immediate control which "substantially constrain the range of available options for action" at a given time, including resource, physical, and social barriers—even in the presence of strong internal desires—situational conditions must be available for desire enactment (if those conditions are not present, it leads to "fortuitous" self-control). Weak or nonexistent opportunity constraints will allow for behavioral enactment of desires and temptations, while strong opportunity constrains will prevent such enactments.

According to the PIMSC, some individuals will temporarily (in the presence of a singular or multiple "hot" states) or consistently (dispositionally) lack awareness of a conflict between a desire and their own or social values and simply enact the desire, opportunity permitting. In other cases, they note that persons may lack "some of the standards a given culture deems essential and binding for everyone." Since there is no internal conflict, they suggest that persons are characterized by some significant lack of values and there can be no motivated or intentional self-control.

Thus, per Hofmann and Kotabe, self-regulation is about resolving the conflict between desire and one's internal standards, and they identify two primary possibilities of interventive self-regulation as to why self-management may fail. First, motivational self-regulation failure concerns when a person is tempted (e.g., experiences both a desire and conflict about enacting the desire) but then fails to translate such a conflict into a concrete intention to resist a problematic desire; they give up before the "battle" even starts. Second, volitional self-regulation failure occurs when a person is tempted and forms a concrete intention to resist that desire and struggles to exert the "effortful willpower" and skills to self-regulate their conflicted state. [In addition to interventive self-regulation, Hofmann and Kotabe also discuss what can be termed preventive self-regulation, regarding tactics that people employ in anticipation of temptation to improve the probability of adhering to their goals and values.]

Both Barkley's model and PIMSC offer useful perspectives, respectively, on the structural psychological elements of effective processing one's own experience in environments of stimulation and the selection and the struggle between value- and standard-based struggles to balance desires with other goals, presumably those more distal and socially validated. Issues related to each of these models clearly have significant bearing on potentiating elements of disinhibition. The presence of elements of EF would appear largely necessary elements for self-control. However, Barkley's model provides insufficient detail to explain why individuals who experience one or more motivators that impel them toward violence generally and sexual offending more specifically behaviorally enact those motivators; there is a lack of specification as to how the elements of EF occur to lead to disinhibition. Similarly, PIMSC provides a useful heuristic for considering

those persons who possess select "higher" psychological characteristics that would lead to "temptation"—the experienced conflict between immediate desires and other personal goals—and the capacity and intent to muster "willpower" to manage those conflicts. However, it is suggested that many sexual offenders, particularly those who are repeat sexual offenders, do not experience significant cognitive-affective conflict (or self-regulatory "temptation") about acting on their sexual or nonsexual motivators when opportunity constraints are absent. That is, it is suggested that sexual offending for most perpetrators rarely results from a "reasoned" process where there is any extended consideration or "weighing" of the potential consequences of sexual acting out as opposed to restraining one's sexual or nonsexual motivators. Consequently, neither set of constructs is sufficient for comprehensively understanding the nature of disinhibition. What follows is an attempt to offer additional perspectives on select dimensions of disinhibition that would appear to play a prominent role in deficits in constraining sexual offending behavior.

In reviewing the extensive available literature regarding EF, personality, and self-regulation/self-control and the much smaller literature specifically concerning disinhibition, it seems clear that multiple, somewhat overlapping, and likely interacting factors are related to the phenomena of disinhibition. If self-control refers to a person's ability or motivation to delay typically more immediate gratification by modulating internal states and behavioral responding, then disinhibition as deficits in inhibition must involve a lack of ability or motivation to recognize the need to delay such gratification or to regulate internal states and behavioral responding. Key elements of disinhibition relating to response inhibition appear to include deficits in attention (initial focus sustained attention) and working memory leading to cognitive impulsivity, self-monitoring, self-focused attention, and/or degrees of self-awareness; deficits in fearfulness and/or social anxiety that create deficits in learning from experience (represented in working and long-term memory); deficits in emotional regulation and coping with arousal experiences; deficits in moral emotions; deficits in recognizing and appreciating values and standards regarding others; deficits in planful or effortful control or "premeditation"; deficits in "willpower" for self-regulation in balancing short- and long-term goals; and a lack of preventative interventions.

Dimensions of Disinhibition: Other Cognitive, Affective, and Social Factors Related to Sexual Offending

Fearlessness and Related Deficits in Learning

Herpertz and Sass (2000) reviewed various studies of the affective domain associated with psychopathy and antisocial behavior and concluded that various emotional "deficiencies" may predispose individuals to violence. Socialization is commonly and simplistically conceptualized as a process through which regular rewards and punishments (aversive conditioning) lead a person to learn rules and values of his family and of the society at large which are internalized as memories. From this perspective, personal values or "conscience" is a conditioned reflex (e.g., Eysenck, 1964), where anxiety induced by punishment for a behavior becomes associated with that behavior. In particular, psychosocial maturation is often construed as a process of learning the value of delaying an immediate reward or gratification for a more substantive reward after some time delay. To the degree an individual possess such information, it may become rewarding and self-motivating to fulfill those rules and values. Some individuals may not be so socialized; others appear to have deficits in "response modulation," specifically an inability to learn from experience and to modify behavior in response to some aversive or punishing consequence.

Fearlessness refers to the absence of normative feeling of distress, apprehension, or alarm caused by potential threat (fear) such as punishment and, as a result, leads to behaviors that have the potential to have negative consequences for the individual which in others would normatively lead to fear. The idea that psychopaths are low in trait fear (persistent and pervasive experience of state fear across situations) or are fearless (e.g., impoverished in condition ability) was first suggested by a study in which Lykken (1957) used the concepts of low fear arousal and conditioned fear to account for the poor performance of psychopaths in classical conditioning and in passive avoidance learning paradigms. In short, poor or absent conditioning results in a failure to appreciate and learn harmful or undesirable consequences of one's behavior and thus results in deficient avoidance behavior and increased approach behavior. An absence of normative fear, particularly related to likely aversive consequences, is associated with engagement in risky behaviors. As noted previously, the apparent fearlessness of some antisocial individuals is, in fact, related to an inability or lack of capacity to process emotion-related cues, particularly punishment, once they have established an initial attentional focus on a particular goal or "reward." As Newman, Curtin, Bertsch, and Baskin-Sommers (2010) suggest, in such cases, an "attentional bottleneck" occurs that prevents potentially salient-inhibiting emotions to enter awareness. Newman et al. (2013) demonstrated that low trait anxiety and trait fearlessness were comprehensively accounted for by the existing PCL-R items and related to all four facets of the PCL-R as well as a superordinate PCL-R factor. A lack of fearlessness or other deficits related to response modulation may commonly lead to a perseverative pattern of seeking more frequently rewarding experiences that provide more immediate gratification. Alternately, the deficit in response modulation may be related to a cognitive impairment (e.g., working memory) that minimizes or negates the memory of the negative effects or consequences of previous—even punished—maladaptive behavior (e.g., Campbell, 2003).

Reward/Stimulation Insensitivity

A related construct refers to the degree to which individual differences potentiate stimulating and rewarding experiences. Herpertz and Sass (2000) identified "emotional deficiency" as closely related with a general underarousal and viewed this attenuated level of autonomic reactivity as linked to pathological fearlessness and a lack of "harm avoidance." Persons with low physiological arousal are viewed as potentiated for seeking stimulation, either through increased motivation via novelty, exciting ("sensational") experiences, or more strongly motivating experiences. Thus, per Cloninger's personality model (e.g., Cloninger, 1987; Cloninger et al., 1993), persons low in reward dependence may find conventional social-sanctioned sources of reward unfulfilling relative to satisfaction and pleasure. In addition, such individuals may also be characterized by hypoarousal, relatively indifferent to negative consequences (e.g., potential punishment, stressors) and less able to experience strong feelings evoked by consequences; they are thus less likely to be conscientious or to learn constraint, self-regulation, or self-control. Shirtcliff et al. (2009) noted that callousness, particularly a related to hypoarousal, was a "two-edged sword," where such persons may be less responsive to social distress and be less responsive to the warmth and other rewards of social interaction and affiliation.

Lack of Self- and Other-Awareness

Self-awareness is the process and state of a motivation and/or ability to understand one's own experience of psychological states (affects, beliefs, motivators, intents, desires, knowledge, and so on). Self-awareness and self-monitoring function as integrated, iterative processes. From the perspective of intellectual functioning, Demetriou and Kazi (2006) state, "These processes enable the person to capitalize on his or her thinking activity by forming increasingly more accurate maps of mental activity and problem-solving processes so as to be able to direct decision-making regarding problem solving as efficiently as possible…Self-awareness is an integral part of DEF [directive-executive function], because the very process of setting mental goals, planning their attainment, monitoring action vis-a-vis both the goals and the plans, and regulating real or mental action requires a system that can remember and review and therefore know itself. Therefore, conscious awareness and all ensuing functions, such as a self-concept (that is, awareness of one's own mental characteristics, functions, and mental states) and a theory of mind (that is, awareness of others' mental functions and states) are part of the very construction of the system" (p. 314). Demetriou and Kazi showed that self-awareness is, in fact, a central element of general intellectual development and functioning, on par with working memory and processing speed. Further, as they point out, self-awareness provides the foundation for theory of mind (TOM) as the ability to understand that others experience psychological states that may be similar and different from one's own. Similarly, Cacioppo et al. (1996) demonstrated that individual differences exist in the degree to which persons are interested or motivated to engage in cognitive activity, distinguishing between cognitive "misers" and "cognizers" (e.g., low versus high intrinsic motivation to engage in mental processing). Deficits in self-awareness are twofold, at minimum. First, deficits in self-awareness are associated with compromised intellectual functioning and attendant higher-order cognitive processes, including reasoning and problem-solving. In addition, from an interpersonal perspective, deficits in self-awareness—"mind-blindness"—necessarily limit the capacity for TOM and compromise the potential for understanding the feelings or intentions of others, for example. Consequently, persons a self-awareness deficit and resultant TOM deficit would be limited in perceiving things from any other perspective than their own; it provides the basis for egocentrism and for failure to appreciate the inappropriate nature of their behavior. Individuals who experience self-awareness deficit and resultant TOM deficit have difficulty determining the intentions of others, lack understanding of how their behavior affects others, and have a difficult time with social reciprocity.

Deficits in "Moral" Emotions (Callousness and Lack of Empathy/Lack of Remorse and Guilt)

In the modified form of the self-control theory of crime, Hirschi (2004) highlighted the significance of the presence of short- and long-term social bonds as particularly influential factors in self-control and constraint. Conversely, various forms of emotional "detachment" from others, particularly related to the so-called moral emotions of empathy, guilt, and shame/remorse, are centrally implicated in disinhibition of antisocial behavior. Both cognitive and affective elements have the potential to underlie deficits in the experience of and intentions based on moral emotions, thus persons may be unable or unwilling to act based on feelings for others, such as those associated with antisocial behaviors. Moral emotions require moral standards—some internalization of moral norms and conventions. In particular, moral standards are those that involve prohibitions against behaviors likely to have negative consequence for the well-being of others. Moral emotions provide a motivational force to "do good" and avoid doing "bad." It is useful to note that there is strong consensus from childhood through adulthood as to the difference between "transgressions of convention" and "moral transgressions." Huebner (2010) identified that the latter are

relatively universally perceived as more wrong, more punishable, independent of authority, and universally applicable. He demonstrated that for seven of eight types of hypothesized moral transgression (physical assault, vehicular assault, sexual assault, assault by a child, inducing illness, recklessly endangering the lives of others, and violating another person's property), subjects rated each scenario as strongly and clearly immoral by virtue of being more wrong, more punishable, having more normative force independent of simple authority, and more universally applicable. Empathy is conceived as an affective response to another person's experience, where an individual can "represent" the internal mental state of another (e.g., perspective-taking) and experience some emotional response congruent with the other's emotional state. Consequently, empathy is contingent on some degree of TOM (in turn contingent on self-awareness).

Relative to such standards, guilt is typically viewed as a more "private" negative emotional reaction (bad "feelings") arising from self-generated feelings to violating socially accepted rules or expected conduct and particularly negative consequences (e.g., harm) done to others as a result of one's behavior. Remorse involves feeling distress, typically guilt or regret, about past rule-violating behaviors. Thus, remorse or guilt refers to a relatively private emotional experience related to one's own negative evaluation of a specific behavior either in the present or past. In contrast, shame is viewed as arising from negative feelings related to public exposure and perceived social disapproval for one's behavior. However, both affects are necessarily tied to recognizing and appreciating moral norms or right and wrong. Callousness or unemotionality (or lack of empathy) refers to an inability or unwillingness (disinterest) to experience emotions, particularly empathy for others as well as guilt or shame; it can be an acquired or heritable (physiological) condition. Callousness is also manifest in a failure to respond to the distress cues of others. Thus, these conditions refer to being unaware of or indifferent (uncaring/unfeeling) regarding the thoughts or feelings of others and deficits in experiencing guilt or shame (a lack of indifference to violating one's own values or those of a social group); rather, such individuals are typically more concerned about the consequences of their behavior on themselves not others. [At the same time, some callous individuals appear capable of understanding enough about others that they are capable of engaging in effective manipulation of them.] These three characteristics are ones that strongly associate with each other; effectively, Blair (1995) referred to them as the "moral emotions" related to transgressions against the rights and welfare of others. These conditions are each one's that can involve perception, attitudes, and deficits in perspective-taking or emotional reciprocity. One key element of callousness is the perception or experience that other persons are objects. Keysers and Gazzola (2014) emphasize an important point, namely, the need to distinguish between the capacity and the propensity for empathy (and other moral emotions) along the lines of the distinction between motor capacity versus motor performance. Citing evidence that more empathic individuals are only moderately more likely to help others and that individual differences in empathy are relatively stable across the lifespan, they note that individual differences in attention and motivation "could thus turn the know of empathy up and down, creating individual differences in how strongly propensity and ability dissociate" (p. 165). They suggest that being sensitive to others can be viewed as "costly," leading to a motivation against acting empathically.

A key element of disinhibition for criminal, violent, and sexual offending are deficits in the identification of moral norms, the experience of "moral emotions," and the propensity to act on norms and emotions; such deficits can operate on automatic, unconscious level or affect more conscious decision-making. Per Patrick et al.'s conceptualization of psychopathy, a callous, coldhearted disposition is viewed and expressed as "meanness" (e.g., Patrick et al., 2009). Persons who lack guilt or remorse do not feel concerned and/or responsible for the consequences of their own behavior; in particular, they do not experience negative affect (e.g., "feel badly") in response to the results of their own behavior upon others (e.g., particularly to other's apparent distress, pain, or injury). More generally, lack of remorse or guilt exists in reference to consequences of most rule- or law-breaking. While some may have deficits in capacity, others lack the propensity to act with sensitivity to and concern for others. As noted, Leeuven et al. (2013) showed that several types of self-serving cognitions [(primary, self-centered) (secondary, minimizing; blaming others and assuming the worst)] appear to be a function of callous-emotional traits and mediate the initiation and maintenance of antisocial behavior.

Antisocial, narcissistic, and psychopathic individuals are commonly viewed by others as manifesting an absence of or deficiency in such feelings that is ego-syntonic. In contrast, they are typically more concerned with the negative effects of antisocial events such as sexual offending upon themselves. There is a consensus that lack or incapacity for empathy or some selective empathy (e.g., a "suspension" of concern for another in a particular situation or one's own victims) is the proposed mechanism for such affect and attitudes; that is, some persons cannot or do not feel others' emotions, while others may be deficient in understanding others' emotions or both. Joliffe and Farrington (2004) utilized a meta-analysis, and their results suggested negative relation between empathy and increased offending; they also found that controlling for intelligence or socioeconomic status eliminated this relationship. After committing violent acts such as sexual offending, certain persons do not identify experiencing remorse or guilt, and, in turn, such predispositions are not surprisingly associated with more persistent

violent behavior. Offenders often proffer verbal expressions of remorse after admissions of sexual offending, but the genuineness of such expressions is questionable, at least in many cases particularly repeat offenders. It has been suggested that select sexual offenders lack the capacity for empathy for most specifically for their victims. Marshall, Marshall, Serran, and O'Brien (2009) have suggested that most sexual offenders do not indicate a lack of empathy toward persons in general but do fail to display or experience empathy toward their specific victims or class of victims. Some empathy deficits may be defensive and mutable, serving as "self-protection" for experiencing emotional distress (e.g., against guilt or shame relative to sexual offending), while others are more pervasive and dispositional.

Callous disregard for the rights and feelings of others is a key hallmark of many antisocial individuals; the characteristic appears to be highly heritable (e.g., De Brito & Hodgins, 2009a). In a meta-analysis, Miller and Eisenberg (1988) showed that aggression and antisocial behavior were inversely related to empathy. In the DSM-5, the "moral emotions" are potential specifiers for conduct disorder in youth and highly predictive of more persistent antisocial and violent behavior. Blair (1995, 2009) reviewed research that indicated persons with greater degrees of psychopathy evidence selective impairments in emotional recognition of others, particularly of manifest fear and unhappiness (as opposed to happiness); thus, some more psychopathic individuals may possess some sense of self-awareness but lack capacity for awareness of distress emotionality in others. While showing that psychopathic individuals manifested deficits in emotional processing and in distinguishing conventional from moral transgressions, Cima, Tonnaer, and Hauser (2010) found evidence that, in a laboratory situation utilizing moral dilemmas, such individuals understood the distinction between right and wrong but did not care about that knowledge or consequences that ensue from morally inappropriate behavior. *Among others*, Keysers and Gazzola (2014) *point out that some apparently psychopathic individuals posses some capacity for empathy that they display in manipulating and "seducing" potential victims but little propensity to allow that empathy to prevent them from victimizing others for personal gain or reward*. Be it genetically and/or environmentally determined (or both), persons with distinctive callousness lack many of the conventional constraints on general antisocial behaviors and interpersonal violence in particular.

Along these lines, Keenan and Ward (2003) have suggested that persons at risk for sexual offending may be characterized by general or particular deficits in theory of mind such that they are unable or deficient in understanding that other people are also characterized by beliefs, emotions, motivations, and values. Alternately, entitlement suggests that other persons' psychological experiences are simply irrelevant given one's own desires or motivations. Referencing deficits in theory of mind, Keenan and Ward (2000) questioned whether certain sexual offenders cannot or do not appreciate that other persons have "minds" (e.g., act on the basis of mental states such as motivation/desired, emotions, and beliefs) and are impaired in their ability to infer other's mental and emotional states. If one does not appreciate that another has their own "mind," they may act as if others are simply objects or simply not grasp that others may view/experience events (e.g., shared events) different from oneself. As Meloy (2003) has noted, more psychopathic individuals display "part-object relations." Noting "The psychopath does not conceive of others as whole, real, and meaningful…" (p. 2). In addition, sexual offenders marked by callousness often "body part" others or over-focus on particular aspects of physical appearance that have emotional or sexual salience for them. Per Meloy, "The extreme of callousness is sadism, wherein indifference toward others has become pleasure at their suffering, submission, and loss of control. Given the degree to which psychopaths attempt to dominate their objects, rather than affectionately relate to them, it is not surprising that there is a strong and positive relationship between sadism and psychopathy" (p. 2).

Emotional Disinhibition or Failure in Emotional Regulation

In contrast to experiential deficits in emotional experiences, more intense affective and other arousal experiences are implicated as motivators in violent and sexual offending. Deficits in the process of modulating desires and strong feelings lead to an increased probability that such arousal experiences will be behaviorally enacted; consequently, such an inability to moderate affects and motivational desires is a key element in disinhibition. In addition, some persons are characterized by a dispositional variance toward unstable emotional experiences and mood (e.g., emotional lability) such that emotions are easily aroused (low sensitivity), manifest in relatively extreme experiences (intensity) to events and circumstances, and persist longer than for most individuals. Emotional regulation refers to the processes related to identification, monitoring, evaluating, and modifying emotional reactions so that they are prosocial or not unsociable; deficits in this domain would include faulty monitoring (recognition and tracking) of one's experiential and arousal states, personal appraisal, or interpretations of what one is experiencing (valence, meaning, attribution) and the range and skill an individual possesses to modulate or change the intensity or frequency of emotional and motivational experiences. Thus, individuals who are emotionally dysregulated typically experience arousal experiences more intensely than others, have difficulties identifying such

experiences based on both personal and situation qualities (e.g., biased toward perceiving more negative information), and do less to modulate (e.g., suppress) the behavioral expression of their feelings.

Emotional regulation is considered a central mechanism for everyday functioning as well as coping with more stressful experiences. Thus, Lazarus and Folkman (1984) distinguished between emotion-focused coping aimed at reducing or managing the emotional experience associated or cued by an internal or external stimulus (distinguished from problem-focused coping which is aimed a problem-solving or doing something to later the source of the problem). Emotion-focused coping involves distracting oneself, ventilating to others, ignoring the situation, or expecting something worse to happen. Similarly, Carver, Scheier, and Weintraub (1989) also identify a range of coping strategies, including acceptance of one's state, suppression of competing activities, behavioral and mental disengagement from "distractions," and denial; all of these strategies might be employed to facilitate motivated action toward a sexual offense. Persons with deficits in emotional regulation attempt few or none of such things or do them incompletely; maladaptive externalized coping involves the tendency to respond in a reckless, impulsive manner when faced with intense or overwhelming upset or distress. Deficits in emotional regulation begin at the attentional level, in terms of initial self-awareness of one's experience and secondarily self-monitoring the dynamics of that experience. Failure of initial response inhibition will likely lead to reactive behavior derived, unmodulated, from the arousal experiences. Avoidance or crude suppression (denial) of the arousal experience typically does not modulate the arousal itself, requires significant psychological resources, and may actually increase or potentiate less conscious behavioral responses. In particular, as a result of compromised psychological resources, arousal suppression reduces the ability of individuals to maintain focused attention on potentially more relevant social interaction and related cues. Distorted or inappropriate cognitive appraisals are associated with arousal-based behavioral enactment. Per this model, a hostile attribution bias (HAB) is the interpretation, in response to ambiguous or accidental circumstances, that another has provoked a person with hostile intent, potentiating an aggressive response (Dodge & Frame, 1982); this is similar to so-called grievance thinking. Folkman and Lazarus (1988) point out that "confrontive coping" with the source or target of negative affect invariably leads to negative consequences. In particular, behavioral expression of arousal states can be quite directly harmful to others and, additionally, compromise potential social support. Further, following Hofmann and Kotabe's notion of preventive intervention, emotional dysregulation would include repeated failures to avoid situations likely to elicit or be perceived as eliciting provocation.

Yet another form of deficient emotional regulation concerns so-called cognitive deconstruction (Baumeister, 1990) defined as an attempt to escape distressing feelings, including ones that may carry some threat of social exclusion or retaliation. Such a process can be understood as a psychological effort to confine awareness to the immediate present as opposed to making inferences or self-attributions about particular behaviors mainly in a cross-temporal sense. Current experiences are "detached" from hindsight or foresight ("self-meaning") to reduce or eliminate the potential for social disapproval and rejection and/or related negative affect.

Howard (2009) suggested that violence could be said to represent the extreme interpersonal manifestation of dysregulated affect (and related motivation). Similarly, Grieger et al. (2012) found that a primary aspect of deficits in self-control associated with violent recidivism was problematic emotional regulation (stress sensitivity and reactivity, compromised ability to modulate the relative intensity of strong hedonic or negative affective experiences, inability to delay the press of arousal, leading to aggressiveness). As noted, various theorists have identified dysregulated negative active as related to sexual offending. **S**exualized coping is defined as the use of sexual behavior, including sexual violence, to manage negative emotions and stressful life events (e.g., Cortoni & Marshall, 2001); it is hypothesized that persons who engage in sexualized coping show increased sexual activity [by themselves (masturbation or viewing erotic materials as a means of inducing arousal) or acting out with or toward others as a means of relief or distraction)] during periods of stress or "dysfunction." Serran and Marshall (2006) reported that sexual offenders are more likely to use other forms of emotion-focused coping (including increased deviant sexual fantasies, expressions of anger, or loneliness) and/or avoidance-focused coping (e.g., pursuing sexual behavior, substance use, or generalized aggressive behavior). In fact, sexual offenders often report increased deviant sexual fantasies and masturbation during periods of stress (McKibben et al., 1994). A link between negative emotion and sex is common among those who engage in high-risk sexual behavior (Bancroft et al., 2003, 2004) as it is among child molesters (Whitaker et al., 2008). Serran and Marshall indicate that certain sexual offenders are much less likely to engage in task-focused coping or PS as a direct means of addressing the provoking experience or stressor.

Relative to the role of emotional dysregulation as a component process of disinhibition is the notion of reconstrual. Such a reappraisal can fundamentally alter the memory of an experience such that any residual emotional element is suppressed or eliminated. Thus, any or some residual affect which might affect future behavior becomes disconnected or attenuated from memory and interferes with consequential learning.

General Emotional Deficiencies

General deficits (as opposed to excesses) related to emotional experience can serve as potent factors in disinhibition. The research literature offers several perspectives on the types of broad deficits in emotional experience that can lead to increased potency of motivators. Similar to reward insensitivity, hypoarousal (low state of arousal) is viewed as cognitively compromising (result in an inability or limitations) in sustaining attention on predictable and/or mundane activities; affectively, it can also be experienced as such an aversive state that it leads to stimulation-seeking or novelty (thus potentiating the value of action on strong arousal states (reinforcing) and leading to action behavior simply as a means of creating stimulation). Hypoarousal is associated with diminished stress sensitivity as well behavioral overactivity, causing such individuals to be less responsive to and likely to elicit positive consequences of social affiliation leading to social rejection and isolation.

Another aspect of emotional deficiency is proneness to boredom. The term boredom is used to refer to a wide range of experiences. Boredom can refer to an aversive subjective state of dissatisfaction attributed to an environment that is experienced as inadequately stimulating; boredom proneness appears to be dispositional condition of individual differences. Persons vary in their experience of environmental monotony and constraint, leading to a difficulty in sustaining attention. Boredom proneness is related to inattention to both external and internal stimulation. Persons also differ in their need for variety and change in their environment and their ability to generate sufficient stimulation for themselves. In part, this can be thought of as habituation. Consequently, boredom proneness can be a predisposing condition based on a failure or deficit in regulating attention in a directed or focused way, particularly to obtain stimulation in an environment or at a time that there is a perceived or experienced loss of interest or stimulation. Further, boredom is also a contextual phenomenon; for a number of people, socioeconomic and other conditions may preclude more socially acceptable forms of thrill-seeking while increasing monotony or sameness of everyday life. Thus, boredom proneness may interact with sensation-seeking by potentiating the motivation for increased frequency of or more intense stimulation (particularly hedonic or positive-valenced stimulation); increased experience of boredom leads to various negative affective states including hostility, anger, and loneliness. As such boredom has been linked to various problem behaviors, particularly externalizing behaviors (e.g., antisocial and substance use/abuse). Quay (1965) proposed that a distinctive feature of psychopathic behavior was the lack of tolerance for sameness, thus predisposing them to seek or create "excitement" or heightened pleasurable sensations. Susceptibility to even minimal sensation-seeking might be particularly true for persons characterized by chronic, generalized low (hypo) arousal or susceptibility to boredom. Such thrill-seeking to generate some arousal via norm violation might be stimulating enough on its own, regardless of the reinforcement that might occur as result of sexual gratification. Krueger et al. (2007a) identified boredom proneness as a key facet of the ES. Raine (2002) pointed out that boredom proneness may be complementary to sensation-seeking in that low levels of arousal predisposes to antisocial behavior both because of its association with fearlessness and its "encouragement" for thrill-seeking; Raine also suggested that such factors may act synergistically. [In addition, repetition and expansion of sensation-seeking behavior over varying periods of time might reflect a likely increase in type, frequency, or variety of a particular behavior because someone prone to boredom (e.g., potentially hypoaroused) would habituate even more quickly than others might to a particular (sexual) stimuli.]

A construct related to boredom proneness as well as callousness, lack of empathy, and lack of guilt/remorse is anhedonia, typically defined as the inability to experience pleasure from activities or experiences usually found enjoyable. Individuals with these personality characteristics are also noted to display particular difficulty in both recognizing and describing their feelings more generally. Alexithymia is considered both a personality disposition and a personality disorder trait of emotional dysregulation, such as found in persons with schizoid personality disorder. Alexithymia is typically viewed as composed of three factors: difficulty identifying one's own feelings, difficulty describing one's feelings to others, and "externally oriented thinking" (a tendency to approach decisions and problem-solving with "logic" as opposed to emotion). From the perspective of motivation, a lack of "anxiety" and other deficits in avoidance motivational processes may also be implicated in alexithymia (as well as callousness and a lack of remorse). Anhedonic persons, similar to persons easily or temperamentally bored, may be motivated to seek out relatively intense experiences that are expected to be arousing as a means of self-stimulation. Grabe, Spitzer, and Freeberger (2004) found that alexithymia was associated with a range of psychiatric disorders, particularly depressive disorders. Alexithymia resembles or would appear similar to persons characterized by the affective components of Factor 1 on the PCL-R; consequently, an inability to understand one's own emotions and those of others might constitute a disinhibitor. Kirsch and Becker (2007) suggested that the emotion recognition and emotional experience deficits found among psychopaths, and perhaps present in sexual sadists, may lead to deficits in their ability to empathize with others, in turn resulting in an increased likelihood for perpetrating instrumental violence.

Amoral Attitudes or Deficits in Common Moral Standards/Judgment or Personal Values

A premise of self-regulation as a top-down element of self-regulation is that persons possess defined personal values and goals, which at times may conflict with immediate desires. However, it is unclear that all individuals are characterized by either self-awareness or personal identities that incorporate "higher" values and goals and don't live much of their daily lives at a level of more immediate impulses and have little concern for how they are viewed by others. Rather, disadvantaged, socially alienated individuals—typically those with "low-embodied capital" (e.g., attributes associated with social success, Bock, 2002)—may be largely reactive to their limited, prepotent internal experiences and their surrounding environment. Thus, persons, including offenders, vary significantly in their psychological mindedness, including the depth and "presence" of higher-order conceptualization and "intellectual" discourse.

Morality refers to what is considered right or wrong by most people—e.g., a common or shared perspective on acceptable behavior. Deficits in moral beliefs and feelings and/or motivation for moral behavior have all been implicated in criminal, violent, and sexual offending. Beliefs are ideas that persons hold as true, and they can be held with varying degrees of certainty; typically, they are derived from what others say, perceived cultural and social norms, or what other people do or say. To the degree that certain beliefs about what is important to a person come to be seen as "true," they become personal values; persons vary as to their perception of importance and commitment to those values. By definition, values are more abstract principles that are hypothesized to guide persons' lives. Many values are viewed as instrumental ones because it is the means of acquiring something else of value (anticipated consequences). Attitudes are the mental dispositions or cognitive content that people develop regarding others and the current circumstances that typically "inform" behavioral enactments, either on an automatic or more conscious decision-making process. A body of research indicates that persons primarily form their attitudes from underlying values and beliefs. However, factors which may not have been internalized as beliefs and values can still influence a person's attitude at the point of decision-making. Typical social influences relative to values include the desire to please, political correctness, convenience, peer pressure, and psychological stressors.

Behavior that violates what are regarded as sociocultural moral guidelines is a fundamental feature of antisocial disorders and almost defines criminal behavior. Moral judgments are viewed as involving both cognitive ("reasoning") and affective components. Per Raine and Yang (2006), "Negative moral emotions likely evolved to counteract the breaking of social conventions. Moral feelings of indignation, disdain, disgust and contempt can give rise to the stronger emotions of outrage and vengeance that then give rise to ostracization of the cheat from the social group, injury or even death. At this level, morality is largely emotion-driven, relatively automatic, and has little or no higher cognitive control component in early hominids. As hominid society became more complex, higher-order cognitive processes likely became increasingly important for both dealing with more complex moral dilemmas, and for regulating the expression of moral emotions" (p. 208). Raine and Yang continued, "While some evidence exists for a difference in level of moral reasoning in delinquent, criminal and psychopathic groups… antisocial behavior could cause differences in moral thinking, rather than vice versa. That is, living an antisocial way of life may change moral thinking to justify the individual's repeated antisocial actions and reduce cognitive dissonance" (p. 209).

Some research shows that "…psychopaths show excellent (not poor) moral reasoning ability when discussing hypothetical situations—their real failure comes in applying their excellent moral conceptual formulations to guiding their own behavior" (Raine & Yang (2006); p. 209). Thus, it may be for some group of antisocial individuals that while formally "knowing" what moral and conventional standards, they do not appreciate the emotional attachment or basis for other person's adherence to those standards; that is, they are cognitively capable of distinguishing right from wrong, but they lack the capacity of the feeling of what is moral. Further, this lack of appreciation for general and/or specific moral and social transgressions and/or an endorsement of more deviant values and goals in social situations (e.g., viewing aggression and dominance as a more acceptable means for obtaining goals) leads to more disinhibited behavior. Alternately, a lack of self-awareness or critical insight, or the presence of ambivalence or uncertainty about sociocultural values, can lead to a less reasoned attitude to choices and consequences and ultimately to undesirable behavior.

Multiple Interactions and Reinforcement Among Personality and Related Conditions in Sexual Offending

It should be apparent that psychological functioning particularly in the management and "mismanagement" of behavior is clearly multidimensional and overlapping in nature. Clearly, the "emotional" and "cognitive" dispositions of self-control (e.g., attention, working memory, etc.) co-occur and interact in a dynamic fashion. Motivators also co-occur and interact with other motivators, likely potentiating the "energy" with which behavior is directed or driven. Even more strongly, dimensions of disinhibition also interact with other elements of disinhibition, potentiating the deficiencies in constraint and management of reactive and "goal"-directed, motivated

behavior. Motivators also interact with elements of disinhibition, likely in various ways and to various degrees. Both the available theoretical models and empirical data direct that individual nonsexual as well as sexual motivators on their own can lead to sexual offending. However, multiple motivators—both nonsexual and sexual—at varying intensities (including lower levels of arousal or activation) could also act cumulatively and/or interactively to cause the enactment of a sexual offense. It is difficult to conceptualize any one or an accumulation of the factors of disinhibition as responsible for a sexual offense without some internal arousal or impetus, either a sexual or nonsexual motivator or emotional experience. However, in the presence of one or motivators, at varying intensities, aspects of disinhibition could also act cumulatively and/or interactively to cause the enactment of a sexual offense. Megargee's (2011) notion of habit strength and like concepts—the number or density of motivators and elements of disinhibition, as well as their intensity—likely function in an interactive and exacerbating manner. Just as with risk factors generally, it makes sense that various personality and related dispositions affect each other differentially, so that some may significantly potentiate one another's power in leading to the enactment of sexual offending, while others might serve to modulate the impetus to sexually offend. Thus, Krueger et al. (1994) showed that anger in combination with low constraint was the most consistent set of predictors of persisting antisocial behavior. They also found that, in combination, alienation, lack of social closeness, and risk-taking were associated with increased antisocial behavior. Patrick et al.'s (2009) construct of "meanness" involves egocentricity, fearlessness, as well as deficits in guilt/empathy or unemotionality, leading to the exploitation of others. Self-regulation has been found to buffer against "risky" behavior but only among those low in sensation-seeking. Kirsch and Becker (2007) and Mokros et al. (2011) found thought affective deficits and "behavioral disinhibition" both have an effect on sexually sadistic behavior. Both the dark triad and Dark Tetrad involve interactions between multiple factors leading to sadistic behavior. In a study of particularly "high-risk" sexual offenders in Canada, Woodworth et al. (2014) demonstrated that offenders scoring high in psychopath were significantly more likely to have a sadistic paraphilia than those with low or moderate levels of psychopathy.

Further, it is useful to consider the role of personality and related conditions after sexual offending. For many or most sexual offenders, both theory and evidence are that such offending is rewarding or positively reinforcing. After criminal events take place, such as sexual offending, additional personality and related dispositions are activated that relate to the relative reinforcement of the event(s). In addition, particular cognitive styles of an engrained nature contribute to the maintenance of sexual offending as a form of antisocial behavior. Krueger et al. (2007a) called attention to externalization of blame as a key element of the ES spectrum. More broadly, Walters (2009) identifies the following aspects of criminal thinking as among those functioning to maintain the propensity for future antisocial behavior: mollification (externalizing the blame for any negative consequences of a criminal act) and super-optimism (unrealistic beliefs that one can escape from the nature negative consequences of a criminal act or lifestyle).

Making Sense of Nonsexual Personality and Related Conditions as Factors in Sexual Offending

Personality and related conditions appear to play several roles in the development and maintenance of sexual offending in the manner of a hierarchical system. Several of these factors may play relatively primary motivational or situational roles in sexual offending (e.g., when it appears that sexual factors play little or no significant role); they are directly related to sexual offending as sufficient conditions for the enactment of a sexual offense. Moreover, personality and related conditions as one of two sets of primary pathways to sexual offending clearly act in a potentiated manner when the other primary pathways (deviant sexual interests, sexual preoccupation) are present. The most well-documented example of that is the so-called dynamic duo of sexual offending where the presence of the both sexual and personality risk factors significantly increase the risk of future sexual offending (e.g., Hawes et al., 2012). Similarly, personality and related conditions may also function as "secondary" risk factors that act in combination (additive and/or interactional) with the presence of either or both primary factors in the enactment of sexual offense. Thus, they magnify the likelihood that predisposing deviant sexual interests and sexual preoccupations on the one hand and primary nonsexual motivational/situational risk factor lead to sexual offending. Further, it seems likely, given existing research that such secondary risk factors frequently act in an additive and/or interactive manner in potentiating and enhancing other predisposing sexual and nonsexual psychosocial risk factors. Thus, sensation-seeking is potentiated by both boredom and disinhibition (e.g., Zuckerman, 1979). In addition, it seems increasingly clear that personality and related conditions may act as or more potently on the level of implicit cognition and affective dimensions, Thus, a significant subset of sexual offense predisposing factors most likely function largely automatically and out of conscious awareness and are not necessarily accessible to rational-analysis or intentional control. Finally, both primary and secondary risk factors, acting alone or in combination, act in a circular manner regarding the actual enactment of a sexual offense, such that their predisposing qualities of such characteristics likely or potentially

become greater over time via simply the rewarding or positive reinforcement aspect of obtaining the goal of a sexual offense. Thus, "positive feedback" increases the "habit strength" of one or more personality and related conditions as key factors in the occurrence of sexual offending.

Situational Opportunities and Constraints

As noted earlier, personality patterns demonstrate relative consistency by context or situation; however, without an appropriate or permissive context, those manifestations may not occur. Relative to intermittent, violent behavior, including sexual offending, some manifestations of personality involving "hot" motivators will only emerge as behavioral enactments at particular times and in particular contexts. Such contexts may be perceived or actual opportunities that allow for a behavioral enactment. For example, while persons might be similar or differ in their general levels of aggression, the key issue is that individuals would nevertheless differ predictably and clearly in the types (and number) of situations in which they committed acts of aggression. That is, even globally similar "aggressive" individuals would "vary in the their pattern of where [aggression] is displayed" (Mischel, 2004; p. 6); he noted that some persons will be highly aggressive with individuals over whom they perceive themselves as having power over (e.g., perceived vulnerable females and children) but might be exceptionally friendly and compliant with those who they perceive as being "in control" of them (policemen, correctional personnel). Such "signatures" of personality were, in fact, revealed in a large observational study of behavior, especially social behavior, across multiple repeated situations over time (Mischel & Shoda, 1995). Qualities of environmental conditions also exert an eliciting or provocation effect on aggressive predispositions and individuals' differ in their susceptibility to potentially stimulating situations; greater aggressive responses are found for persons high in trait anger, generalized hostility, narcissism, and impulsivity (e.g., Bettencourt, Talley, Benjamin, & Valentine, 2006). Similarly, some persons are more sensitized to a greater number of situations so that similar personality dimensions will be displayed more frequently, with greater intensity and more consistently than others. Conversely, some personality dimensions and related behavior will require some very specific situational or contextual cues in order for them to be instigated and displayed. Mischel (2004) utilized the term "personality types" to define people who shared common characteristics in processing certain situational features: "The types are defined in terms of characteristic social cognitive and affective processing dynamics that generate characteristic *if…then…*patterns of thought, feeling and behavior visible in distinctive types of situations" (p. 14). Similarly, in their discussion of self-regulation, Hofman and Kotabe (2012) noted that "opportunity constraints" were powerful situational determinants of the "appearance" of self-regulation; environments that do not permit access to desire gratification provide powerful "preventive interventions," often absolute preventive interventions. As per Fujita (2011), "Research has repeatedly show that when people are able to anticipate potential self-control failures, the prospectively restrict the future availability of an opportunity to indulge in temptations…the first step to self-control is to avoid having the opportunity to indulge in immediately available temptations" (p. 355). He pointed out that "Indeed, research has demonstrated that those with a history of better self-control are more likely to capitalize on opportunities to engage in prospective self control…" (p. 359) often to the point where what was effortful control becomes automatic and less dependent on conscious monitoring. Thus, it is notable that Edens, Kelley, Lilienfeld, Skeem, and Douglas (2014) found that no symptoms of ASPD, including a lack of remorse, or that diagnosis predicted institutional misconduct. For most persons with ASPD, they do not commit aggressive or other antisocial acts while in prison or they escape detection; nonetheless, their antisocial behavior decreases in a more monitored and controlled environment.

For sexual offenders, it is clear that a significant group of such offenders attempt or commit sexual offenses at a rate greater than the general population as well as the general population of criminals. However, they do not commit sexual offenses "all the time" or even necessarily frequently (although for certain offenders, that may be the case). Yet, *at certain times*, perhaps when particularly predisposed (for some by particular "hot" impulses and others by some greater number of motivators in combination with dimensions of disinhibition), when presented with particular situations (or if able to create particular contexts) involving personally "appropriate victims" and "perceived permissive circumstances," some sexual offenders show much more characteristic (and/or repetitive) patterns of sexual offending. A smaller group appears to act simply on the basis of subjective, perceived opportunity, and of that group, a subset demonstrates more varied types and targets of sexual offending, as differing sexual and nonsexual motivators are in play within particular, diverse contexts. Individual differences (in general predisposing personality characteristics, a larger set of potentiated motivational or emotional states, more varied and extensive deficits in self-control, self-regulation, or executive functioning) differ among sexual offenders and may be more or less "active" at different times, intensities, and levels of awareness. Clearly, despite the experience of similar or even exaggerated motivational states via general arousal or mental self-stimulation

(perhaps even intensified by situational deprivation), virtually no sexual assaults of females or children occur while identified sexual offenders are incarcerated or detained; neither the situational factors of appropriate victims and/or permissive circumstances exist and so behavioral enactments do not occur. Consequently, varied combinations of predisposing personality and related conditions and the particular nature of situations (or perceived situations) that an individual finds himself in (or creates for himself) will determine the expression or manifestation of those traits or predisposing characteristics as sexual offenses. Thus, the presence of increased influence of motivators and elements of disinhibition, in conjunction with particular situational elements, plays a critical role in the likelihood of many sexual offenders to reoffend.

Aggregating Nonsexual Dimensions of Personality in Relationship to Sexual Offending

From a consideration of personality and related conditions, numerous personality and related variables are identified by theory, empirical study, or both as related to future sexual offending. In examining this set of factors, namely, those including motivators, disinhibition (or lack of self-control), it seems clear that they are predominantly elements of or related characteristics of various personality disorders, executive functioning, or alcohol use disorders. The primary categories of PDs that contain personality-based predisposing characteristics for sexual offending are the set of so-called Cluster B disorders (per the DSMs). Smaller secondary categories of personality disorders related to sexual offending are those involving issues in social bonding, social skills/immaturity, and social anxiety, particularly, avoidant personality disorder.

Clearly, ASPD by means of its subsidiary traits appears to be the principal personality disorder related to sexual offending. Its manifest components include primary motivational elements (irritability or aggressiveness) and multiple elements of disinhibition (indifference/disregard for rules, impulsivity, reckless disregard for safety of others, and lack of remorse). In addition, to those particular antisocial elements identified in the DSMs are related characteristics that empirical research has demonstrated accompany antisocial characteristics (or are consequences of the previously mentioned ones) such as deceitfulness and irresponsibility.[5] Relative to the dimensional construction of ASPD in DSM-5, components include several primary motivational elements (egocentrism, goals for personal gain or pleasure, hostility, risk-taking, irritability, or aggressiveness) and aspects of disinhibition (callousness, impulsivity, reckless disregard for safety of others, and lack of remorse).

In addition, BPD also includes potential primary motivational elements (inappropriate, intense anger; unstable interpersonal relationships (social bonds), including idealization of potential "partners;" chronic feelings of emptiness; identity disturbance) as well as multiple elements of disinhibition [impulsivity and affective instability/reactivity (dysregulated affect)]. Relative to the dimensional construction of BPD in DSM-5, components also include potential primary motivational elements (chronic feelings of emptiness, hostility, risk-taking) as well as multiple elements of disinhibition (impulsivity, emotional instability, compromised empathy, unstable relationships). In addition, a number of studies have demonstrated significant comorbidity in diagnoses of ASPD and BPD. Zanarini et al. (1998) found that males who met criteria for BPD were significantly more likely than female borderlines to meet DSM-III-R criteria for paranoid, passive-aggressive, narcissistic, sadistic, and antisocial personality disorders relative to persons with other personality disorders. Black, Gunter, Loveless, Allen, and Sieleni (2010) found that in a random sample of newly incarcerated offenders, those who met the criteria for ASPD showed higher rates of BPD, ADHD, and SUA. Grant et al. (2008) showed a strong relationship between BPF and NPD and substantial disability. Berger et al. (1999) found the criteria for the former sadistic personality disorder overlapped with both ASPD (42 %) and BPD (32 %) and suggested that sexually sadistic behavior might be an important sub-dimension of such Cluster B disorders.

Per the categorical approach in DSM-5, NPD too includes primary motivational elements (grandiosity and self-importance, particularly in reaction to experienced inadequacy, entitlement, and arrogant, haughty attitudes) and elements of disinhibition (lacking empathy, interpersonally exploitative, need for others for self-esteem or inflated self-esteem, grandiosity leading to entitlement, and attention-seeking). Relative to the dimensional construction of NPD in DSM-5, components also include potential primary motivational elements (entitlement/grandiosity/egocentrism, excessive attention-seeking, fluctuating self-appraisal, sensitivity to approval from others, superficial or limited intimacy) and

[5]It should be noted that Markon and Krueger (2005) also found that conduct disorder and antisocial personality disorder were not related in the manner generally believed; conduct disorder did not appear to be a necessary prerequisite for adult antisocial behavior disorders. Other investigators have made similar findings, although the presence of conduct disorder may identify a particularly persistent form of ASPD. However, per Robins (1978) and Moffitt (1993), early-onset antisocial behavior was a "sturdy" predictor of persistent antisocial behavior over time.

elements of disinhibition (impaired or absent empathy, inability for intimacy). Again, available research indicates the significant comorbidity in diagnoses of ASPD, BPD, and NPD as well as substance abuse (Stinson et al., 2008). Cox, Clara, Worobec, and Grant (2012) recently found that via factor analysis of NESARC, data identified a three-factor cluster model, supporting the DSM grouping of theoretically related personality disorders. Similarly, Warren and Burnette (2012) found that the primary factor associated with criminal offending was composed of predominantly antisocial personality traits as well as select traits associated with BPD and NPD. Indirectly, these results highlight the continued usefulness of psychopathy. As a construct, psychopathy as a collection of maladaptive personality traits and antisocial behaviors (in particular as measured by the PCL-R) obviously offers a particularly useful approach to aggregating many of the key elements of personality and other predisposing elements related to violent and sexual offending. Relative to the PCL-R, motivators include grandiose sense of self-worth, need for simulation/proneness to boredom, and (what is termed) poor behavioral controls. Elements of disinhibition include impulsiveness; lack of remorse or guilt; callous/lack of empathy; shallow affect; failure to accept responsibility for own actions; lack of realistic, long-term goals; and irresponsibility. Woodworth et al. (2013) found that a substantially greater portion of (four times) sexual offender who scored high on the PCL-R reported engaging in sexually violent fantasies (relative to those low on the measure).

In addition, avoidant personality disorder (APD or key traits associated with that disorder) also represents a condition that likely predisposes select individuals to sexual offending, both for rape but particularly for child-focused sexual offending. APD also includes potential primary motivational elements (low self-esteem, anxiety about "acceptance" in relationships, reluctance to take risks in interactions with peers); thus, persons with APD may be characterized by powerful motivations for belonging, acceptance, approval, and nurturance, leading them to seek and even force social contact with minors in efforts to "achieve" perceptions of those experiences. Relative to the dimensional construction of APD in DSM-5, components also include potential primary motivational elements [low self-esteem, reluctance to take perceived risks (such as social behavior with appropriate peers, frustration from anticipated or real social rejection, and limited or nonexistent intimacy] as well as – disinhibitors (anhedonia, social or emotional detachment).

It is also worth considering that the predominant DSM personality disorders model as consisting of "categorical" conditions (requiring a minimum number of specific maladaptive personality traits to be present) reflect the notion that a minimum additive effect exists. As with other phenomena, studies indicate the most valid way to view the significance of personality and other related condition is in a dimensional, additive model so that both the total number of and severity of characteristics present are predictive of increased criminality, violence, and sexual offending. Thus, Skilling, Harris, Rice, and Quinsey (2002) found that the severity of life-course-persistent antisocial conditions (both ASPD and psychopathy) as measured by the number and strength of symptoms/characteristics was strongly associated with future violence. Assessed dimensionally, both ASPD and psychopathy were highly correlated ($r = .85$).

In considering the role of the DSM-defined personality disorders, it is clear that the particular definitions of these disorders fail to acknowledge, let along privilege, what are key aspects of personality that are likely related to sexual offending, such as reward/novelty-seeking, dominance, generalized hostility, social inadequacy, and social isolation.

Comorbidity of Personality and Related Predisposing Conditions: Implications for Sexual Offending

Various motivators and elements of disinhibition appear likely to interact to increase the predisposition to sexual offending. Similarly, select traits associated with one or more personality disorders, deficits in executive functioning, and substance abuse/dependence are also likely to interact or converge to aggravate the likelihood of sexual offending. Tyrer and Mulder (2006) demonstrated that the "complexity" and severity of a personality disorder (the former defined in terms of meeting criteria for more than one personality disorder and the latter in terms of the possibility of severe disruption to both individual and to many in society) were robust predictors of more negative outcome. Empirically, the *combination* of or comorbidity of so-called Cluster B personality disorders and their subsidiary (and overlapping) traits show a particularly strong relationship to criminal and violent behavior; in particular, persons with traits of both ASPD and BPD and/or narcissistic or paranoid traits showed particularly high levels of such antisocial behavior. Black et al. (2010) reported that as many as 50 % and 75 % of those meeting criteria for ASPD meet the criteria for alcohol dependence or drug abuse. Blackburn and Coid (1999) used cluster analysis to identify six diagnostic patterns among personality disorder among violent offenders; three of those groups (antisocial-narcissistic, paranoid-antisocial, borderline-antisocial-passive-aggressive) had more extensive criminal histories, were more likely to be identified as psychopaths, and more lifetime history of substance abuse. Both Blackburn and Coid (1999) and Egan (2009) identified

that persons with antisocial, narcissistic, borderline, and paranoid personality disorders were more likely to be arrested (due in part to high levels of angry hostility, excitement-seeking, and impulsiveness) and that violent offending among those with such diagnosed personality disorders was more strongly associated by their comorbid traits than by one particular category of personality disorder. Howard, Mccarthy, Huband, and Duggan (2013) showed that patients with antisocial/borderline comorbidity took significantly less time to reoffend compared with those without such comorbidity; in addition, Factor 2 of the PCL-R also strongly predicted a more rapid reoffense.

Further, as noted, substance use disorders, particularly recurrent alcohol use, have been implicated as a significant factor in violent and criminal offending; while situational alcohol consumption *independently* contributes to increased rates of violent behavior, it is also genetically associated with externalizing personality disorder traits and likely interacts with other dispositional features to aggravate the risk of violence. In substance-abusing populations, the co-occurrence of substance abuse and any personality disorder is particularly high, with a median prevalence of co-occurrence of 61 % identified in one review of 50 studies; the association is particularly strong between substance misuse and antisocial and/or borderline personality disorders; and illicit drug users show a higher co-prevalence rates personality disorder than problem drinkers (Verheul, Bartak, & Widiger, 2007). Fifty percent of males who demonstrated a life-course-persistent pattern of antisocial behavior were diagnosed as alcohol dependent at age 18 (e.g., Moffit et al., 1991). In the ECA study, Regier et al. (1990) showed that persons with ASPD were approximately 30 times more likely than non-antisocial individuals to have any type of substance use disorder, 21 times more likely to show alcohol abuse/dependence, and 13 times more likely to show substance abuse/dependence.

Nestor (2002) concluded that higher rates of violence were firmly established most prominently for individuals with Cluster B personality disorders in addition to substance abuse/dependence disorders (SAB); he noted that rates of violence are 12 to 16 times higher for individuals with SAB and Cluster B personality disorders. Further he noted that these conditions interacted so that persons with SAB and comorbid personality disorder were as high as 43 %. When characterized by comorbid substance dependence, 52 % of personality disordered individuals reported committing acts of violence (Coid et al., 2006). Similarly, Howard (2009) pointed out that persons with both ASPD and BPD with a history of drug and alcohol problems had significantly more violent convictions; they also showed significantly higher levels of anger and impulsivity (affective impulsivity). Stinson et al. (2008) found that substance use disorders, particularly drug abuse or dependence, were quite common in persons with narcissistic personality disorder (e.g., greater or equal to 50 %). Howard et al. (2013) showed that patients with antisocial/borderline comorbidity took significantly less time to reoffend if they were characterized by comorbid substance use. Utilizing exploratory factor analysis, Warren and Brunette (2012) found that the primary personality factors associated with future violence including predominantly traits of ASPD (violation of social norms, aggressiveness, deceitfulness, impulsivity, reckless disregard for the safety of others, and irresponsibility), BPD (impulsivity and anger), and NPD (exploitation).

As in criminal and general violent behavior, personality and related conditions particularly motivation/emotions and self-regulation/self-control acting as motivators and elements of disinhibition clearly play several roles in sexual offending. In some instances, such conditions serve as predisposing factors which singly or, more commonly, in various combinations provide the primary basis for enactment of sexual offenses. Such personality and related conditions consist of several components. First, as nonsexual appetitive or incentive or consummatory motivations, blends of cognitions, affects, and arousals/impulses provide pushes of varying intensities toward inappropriate sexual behavior. In addition, as noted previously, nonsexual arousal and motivations may become sexualized as well and lead to additional sexual arousal. Second, deficits or other limitations in self-regulation/self-control and/or executive functions represent failures of inhibition and constraint—elements of disinhibition—that to various degrees function singly or more commonly in varied combinations to allow appetitive motivations to emerge relatively unmodulated in a press for sexual and other psychologically meaningful gratifications. Further, both nonsexual appetitive motivations and deficits or failures in self-regulation may also combine with varied degrees of awareness of primary sexual appetitive motivation and generalized sexual preoccupation to result in attempts at varied sexual offenses. In fact, this seems like the most common set of states and traits involved in the enactment of sexual offenses. In addition, in limited cases, it appears that situational or contextual factors, particularly alcohol and/or drug intoxication (e.g., excessive use) and negative peer associations, can be sufficient to lead to the occurrence of a sexual offense.

Personality and related conditions are composed of multiple elements that are dimensional in nature. Research and theory has increasingly defined which dimensions of personality appear relatively universal and cohere to account for the most potential behavior. As dimensions, atypical or maladaptive effects can be created by extremes at each end of a continuum. Personality and related dimensions appear to be strongly influenced by factors of heritability as well as shaped by an interactive reciprocity where biologically based dispositions repeatedly interact negatively with particular environmental influences to amplify their dysfunctional potential relative to behavior conditional on situations;

thus, developmental environmental forces often exacerbate or aggravate problematic personality and related predispositions toward antisocial, violent, and sexually violent behavior. In particular, motivational domains and EF/SR domains each appear to be characterized by "cool" and "hot" elements or dimensions; more biologically elementary "hot" dispositions may function relatively autonomously of more "cool" systems optimized for affect/arousal neutral information-processing and behavioral regulation. Given such vulnerabilities, more automatic and reactive sexual offending might result, particularly for visceral motivational factors. In contrast, despite "hot" dispositions, "cool" systems (associated with better-managed inhibiting factors) may allow for more calculated and premeditated—instrumental and predatory—enactment of sexual offending; thus, intense motivation may be titrated to improve the likelihood of behavioral gratification and the minimization of undesired consequences. Further, persons with a greater frequency or intensity of "hot" affective-arousal factors appear to be characterized by lower degrees of self-control, a dynamic duo of disinhibition. While data suggests that personality and related dispositions are relatively enduring and consistent over time and situations (e.g., relatively characteristic), situational stimuli can exert a very powerful influence in eliciting such predispositions (both in evoking or provoking motivators or compromising deficits or limitations in EF/SR) and in further impacting one or more elements of disinhibition. Behavior resulting from personality and related dimensions thus are a function of the type, degree, and number of motivators and elements of disinhibition but also the degree to which a particular situation impacts on those particular dimensions and provides "permissive circumstances" (or a lack of "opportunity constraints") for related behavior to occur. Thus, one would expect to find the enactment of a particular type of sexual offense on occasions when sets of motivators and elements of disinhibition are present and activated *and* when the situation or context are both appropriately stimulating and permissive of the desired behavior. Absent appropriately stimulating and permissive environmental elements, particular types of sexual offending, are less likely to occur. At the same time, particularly heightened motivators, deficient mechanisms of self-control, and the relative "availability" of potential sexualized target individuals or activities might also lead to more diverse sexual offenses. Thus, given knowledge of particular characteristics of the contexts of one or more sexual offenses, one might be able to evaluate the relative but general strength of a set of dispositions (motivators and/or elements of disinhibition) toward sexual violence. However, without full or accurate knowledge of the specific characteristics of time and situation that one or more combination of predisposing conditions became manifest in particular acts of sexual offending, it is very likely that only a general picture of the nature of the predisposing conditions to such offending can be obtained.

Thus, nonsexual motivators and elements of disinhibition can be understood as enduring predispositions (e.g., trait-like) or vulnerabilities that also manifest contextually as well as more intense "state-like" phenomenon under particular types of environmental stimulation and circumstances. Each personality and related predisposition is characterized by individual differences in the nature and variety of conditions; the sensitivity, intensity, persistence, and frequency of such conditions; the nature and degree of their interactions (e.g., additive or interactive/synergistic); and the degree (magnitude) to which they are elicited or provoked by a range of situational factors. In certain instances, it may be that one identified predisposing personality and related factors might be sufficient on its own to lead to sexual offending, such as a particular intense motivator and/or a profound type and extreme degree of disinhibition (particularly at particular times and in specific situations). However, it appears most likely and most commonly that these factors act in combination and sometimes interactively or synergistically. That is, motivators and aspects of disinhibition exist and appear as part of a dynamic process. Consequently, one can conceptualize multiple pathways for a particular individual with a particular set of predisposing motivators and/or elements of disinhibition to enact a sexual offense; many different combinations of predisposing conditions given eliciting or provoking situations might lead to sexual offending. Varying combinations of personality-related motivators of differing degrees interplay with differing combinations of elements of disinhibition of varying degrees or intensity. Further, the added impetus or motivational power of sexual predisposing factors in addition to the presence of nonsexual predisposing conditions, including motivators and elements of disinhibition, would create particularly powerful forces that both press for and permit the enactment of sexual offending, given fluctuating or divergent situations. Finally, the degree of relative reward (reinforcement of one or multiple motivators) experienced in consummating a sexual offense would most likely dramatically increase the habit strength of the source motivations as well as further degrade the influence of elements of disinhibition. Thus, it is understandable that research efforts might best be able to only characterize the broad themes of nonsexual personality and related conditions as they relate to sexual offending. The reality of varying sensitivities to varying and multiple motivators and relative presence of multiple potential elements of disinhibition, all activated to varying degrees by varying situations and circumstances, would be quite difficult to capture in even sophisticated statistical analyses.

For some individuals with some of these predisposing conditions, developmental experiences likely further aggravate their genetic liabilities either in more or less enduring

ways by interfering with the acquisition of more normative means and levels of self-control and heightening key motivators of antisocial and violent behavior. In contrast, alternate developmental experiences likely mitigate their genetic liabilities either in more or less enduring ways by enhancing the acquisition of more normative means and levels of self-control (e.g., in part, via the acquisition of skills to manage both motivators and elements of disinhibition or through the development of particular values and self-schema that act as particular inhibitors). Thus, well-developed self-control mechanisms could potentially mitigate the effects of the presence of one or more appetitive-predisposing conditions at certain times and across situations. In contrast, the apparent interrelationships between elements of disinhibition might allow a more or even less powerful motivator (or convergence of less intense motivators) to be expressed with little or no modulation. It would seem clear various issues (e.g., acute or chronic stress, particularly vulnerability-reactive stress) might also interfere with or exacerbate such predisposing conditions for sexual offending. In sum, it seems clear that multiple personality and related conditions exist which potentiate and play key causal roles in sexual offending in perceived permissive contexts, either on their own or in the presence of general or specific heightened sexual arousal, interests, and/or urges.

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