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The Confluence Mediational Model of Sexual Aggression

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Introduction and Overview

Inspired by Marshall and Barbaree’s (1984) pioneering theoretical perspective on a multifactorial approach to conceptualizing sexual aggression, the original Confluence Model of sexual aggression was the first published model to present an empirical framework for a multifactorial integration of the characteristics of men likely to commit sexual aggression (e.g., Malamuth, 1986, 2003; Malamuth, Sockloskie, Koss, & Tanaka, 1991). This empirical framework also led to some theoretical developments designed to explain the reasons for the particular characteristics of sexual aggressors (e.g., Malamuth, 1998; Malamuth & Malamuth, 1999). In describing this model in this chapter, we begin with a brief overview followed by the background for its development. We then present key research pertaining to replications and extensions of the model. Although this model was developed primarily to account for characteristics of men from the general population who commit sexual aggression but who are seldom prosecuted for such acts (actually the majority of sexual aggressors), we believe that it also has some relevance to criminal sexual aggressors (e.g., see Widman, Olsen, & Bowlen, 2013). Following this discussion of the model generally, we illustrate the model’s utility by a series of interrelated studies examining the impact of pornography.

Before we proceed, we would like to suggest a slight change in the terminology used to refer to this model. Although in the past this model was referred to as the Hierarchical Confluence Model of Sexual Aggression (e.g., Malamuth, 2003) we suggest that the term Confluence Mediational Model (CMM) of sexual aggression may be somewhat clearer and we will therefore use that term throughout this
chapter, or just the Confluence Model. Although a more complete name might be the Moderated-Mediational Confluence Model, we believe that it may be too cumbersome. Nevertheless, as elaborated upon below, we suggest that some factors contributing to sexual aggression hold indirect associations only with the aggressive outcomes (i.e., influence through other factors) and that there are also important interactional or moderated influences.

The Confluence Model of Sexual Aggression

Short Summary of the CMM

Originally proposed by Malamuth (1986), the Confluence Model considers sexual aggression within the context of developmental, personality, and behavioural factors that have been shown to correlate with sexual aggressive behaviours, particularly among non-criminal male populations. After assessing the utility and overlap among a wide variety of correlates, the Confluence Model successfully narrowed down these correlates into a manageable set of factors and demonstrated that these may be meaningfully organized into two main interrelated clusters, assemblages, or constellations that are largely independent of each other. The two constellations were labelled the Hostile Masculinity (HM) and Impersonal Sex (IS) paths (Malamuth et al., 1991). The HM path is a personality profile combining two interrelated components: (a) a narcissistic, insecure, defensive, hypersensitive, and hostile--distrustful orientation, particularly towards women, and (b) sexual gratification from controlling or dominating women. The IS pathway reflects a developmental history of growing up in a troubled environment that often included violence and/or abuse, an adolescent pattern of antisocial leanings, culminating in a promiscuous ‘detached’ orientation towards sexual relations (and possibility more generally to interpersonal relations). Generally, relatively high levels on these characteristics are considered risk factors whereas relatively low levels are likely to function as protective factors.

Three key contentions of the CMM model are as follows:

1. Including (a) risk factors that contribute to antisocial behaviour generally and (b) risk factors specific to sexual aggression provides a better profile of the characteristics of men more likely to commit sexual aggression than either set of characteristics alone. In some sense, the model suggests that there is a general ‘G’ factor of antisocial tendencies akin to that found in intelligence research or the ‘p’ factor suggested for a general psychopathology factor (Caspi et al., 2014) interacting with more specific factors relevant to sexual aggression. In particular, we suggest that the general antisocial component of this model may more readily be relevant to the relatively extreme acts that are successfully prosecuted, whereas a more moderate degree of this component interacting with the factors more specific to sexual aggression account better for sexual aggressors who are typically not prosecuted by the criminal justice system.

2. The many factors shown to correlate with sexual aggression may be reduced to a relatively small number of general antisocial risk factors, some of which
overlap with psychopathic tendencies. These include home background of abuse, antisocial tendencies in adolescence, sexual promiscuity, narcissistic personality characteristics, low empathy (Dean & Malamuth, 1997; Malamuth, 2003; Malamuth et al., 1991), and risk factors more specific to sexual aggression, such as hostility towards women, attitudes supporting violence against women, sexual arousal to rape, and sexually aggressive fantasies (e.g., Dean & Malamuth, 1997).

3. Central to the Confluence Model is a core contention that it is the interaction of the two organizing constellations (i.e., Impersonal Sex and Hostile Masculinity) that is the most predictive of sexual aggressive behaviours (Malamuth, Hald, & Koss, 2012). In other words, if a man is relatively high on the factors comprising these constellations of characteristics, he is particularly at risk for being sexually aggressive. Therefore, going beyond a typical additive risk approach in which factors are simply added to obtain a cumulative risk profile, the CMM proposes a ‘cumulative conditional probability’ model that makes three interrelated predictions: (a) the likelihood that a male possesses the included risk/protective factors is affected by the presence/absence of certain other factors in the relevant constellation, (b) when a combination of certain antecedent factors in a sequence exists, the probability of the outcome (e.g., aggression) is greater than when a smaller number of risk/protective factors exists, and (c) although each antecedent factor contributes independently to a higher probability of the outcome, the confluence of factors has more than a simple additive effect on the likelihood of the outcome. This effect is best described as a ‘synergistic’ or interactive effect in which the addition of risk factors increases the probability of sexual aggression in a non-linear way (see also Figure 3.1). In other words, the risk factors function as in a ‘cocktail’ wherein interacting elements change the role of each in a synergistic manner.

Figure 3.1 Levels of sexual aggression as a function of number of risk factors. Source: Malamuth, 1986. Reprinted with permission of the American Psychological Association.
Background for the Development of the Model

The development of CMM is highlighted with the research of Malamuth (1986), who sought to develop a coherent model capable of integrating the attributes of sexual aggressors. In this study, a personality measure of general antisocial characteristics was included, namely Eysenck’s psychoticism dimension, in addition to other risk variables that were selected because they had been hypothesized or shown to be specifically discriminative of sexual aggressors. These included sexual arousal to rape (as revealed in penile tumescence assessment), callous attitudes about violence against women, dominance as a motive for sexual intercourse, hostility towards women, and early sexual experience.

As revealed in simple correlations, all of these attributes discriminated between sexual aggressors and non-aggressors (except that the correlation with psychoticism only approached statistical significance). Most importantly, it was found that although these variables individually related to aggressive sexual behaviour, a regression equation that included the interactive combination of all of these variables was much better in predicting sexual aggression than each of the risk variables alone or even the additive combination of all of the risk variables. This finding is illustrated in Figure 3.1, which shows the average level of sexual aggression as a function of the number of risk factors. As indicated in the relatively steep rise between having four and five of these risk factors (see Figure 3.1), the effect is more than simple additive.

These findings were the basis for the more developed version of CMM, emphasizing the importance of the interactive confluence of relevant risk factors and the inclusion in a ‘mediational’ model of both general antisocial characteristics and related factors more specific and proximate to sexual aggression.

Using Structural Equation Modelling

Follow-up studies on the Confluence Model used some variant of ‘structural equation’ statistical modelling (Hancock & Mueller, 2013). Before proceeding to describe these, it is therefore useful to summarize this well-established statistical modelling approach because it is integrally related to the structure of the Confluence Model. In simple terms, structural equation modelling combines aspects of both ‘factor analysis’ and ‘path analysis’. It enables several types of analyses to be performed. First, the factor analytic part enables several facets of a broader factor to be organized within a latent framework. For example, the ‘shared variance’ of facets such as grandiosity, impulsivity, short temper, and low empathy may be modelled within a broader construct that might be labelled ‘general antisocial personality characteristics’, ‘psychopathy’, or ‘general hostile personality’. Statistical tests are included that indicate the extent to which the level of organization used is appropriate or not. Second, the path analytic part enables the relationship among several such latent variables to be represented statistically. At the same time, it is feasible to represent unique variance from a facet to another factor (although this is done relatively infrequently). Third, mediation and moderation (Barron & Kenny, 1986) effects among factors and between factors and the outcome (e.g., sexual aggression) may be fully considered.
Such structural equation analyses that we used in Malamuth et al. (1991) had generally not been tested in other research on the characteristics of sexual aggressors in criminal and non-criminal populations until more recently (e.g., Knight & Sims-Wright, 2003, 2005, 2011). As noted above, some of the early research on the characteristics of non-criminal sexual aggressors first considered general antisocial and/or psychopathic characteristics, but appears to have gradually moved away from such characteristics in favour of those more specific to sexual aggression (e.g., attitudes supporting sexual aggression). This was partly due to the use of the most common form of regression analysis, which includes the assessment of 'main effects' only without explicitly testing interaction and/or indirect effects. The typical outcome was that the more specific predictor (e.g., attitude legitimizing sexual aggression) significantly entered the equation, but not the more general antisocial or psychopathic predictor. This often led the investigators to conclude that the more specific predictor was of primary importance and that the more general psychopathic predictor was not, since it had 'dropped out' once control for overlap between the two types of predictors had been employed in the regression analyses. As elaborated upon below, we believe that both types of predictor factors should be retained.

The CMM is hierarchical in that certain higher order constructs or factors that encompass several components or facets are included at the level designed to encompass best the variance shared by the components in their overlap and their ability to predict the outcome of sexual aggression. This has been accomplished via the modelling of 'latent' constructs and/or via the creation of composites combining individual scales or measures. It is 'mediational' in that some constructs or factors have proximate or direct paths into the sexual aggression outcome (e.g., components of the hostile masculinity constellation), whereas others relate to the outcome only via mediation by the more proximate factors. We now describe some of the other key studies that led to the development of this model and elaborate here upon some key issues not discussed in previous publications.

**Development of Key Constellations**

Using structural equation modelling, Malamuth et al. (1991) concluded that the attributes of sexual aggressors actually coalesce into two major constellations rather than being a set of unrelated independent variables. The first constellation included callous, manipulative attitudes towards women, grandiose, narcissistic personality characteristics, hostility towards women, and dominance as a motive for sex. It was labelled the Hostile Masculinity (HM) path. The second constellation included early experiences of abusive/conflictual home environments, general antisocial tendencies reflected in adolescent delinquency, and relatively high levels of promiscuous/impersonal sex.\(^1\) It was labelled the Sexual Promiscuity/Impersonal Sex path

\(^1\)The characteristics that comprise the Hostile Masculinity path are essentially personality traits, whereas those of the Impersonal Sex path consist more of experiential/behavioural ones (i.e., early experience of abuse, engaging in antisocial and sexually promiscuous behaviour). Future research should consider the extent to which these are 'markers' for certain underlying genetic and/or experiential factors.
Figure 3.2 The two major constellations of factors comprising the Confluence Model of Sexual Aggression.

(SP/IS) (see Figure 3.2). In keeping with Malamuth (1986), the data of Malamuth et al. (1991) showed that the interaction of the two constellations of characteristics predicted sexual aggression most successfully. Incidentally, it was also found that in contrast to sexual aggression, non-sexual aggression against women was best predicted by the characteristics of the Hostile Masculinity path alone. Malamuth et al. formally labelled the model integrating these constellations of characteristics the ‘Confluence Model’, to emphasize that the interactive confluence of the set of characteristics included in both of these two constellations best discriminated between sexual aggressors and non-aggressors. Using data from a nationwide online survey, Logan-Greene and Davis (2011) incorporated alcohol use into these risk factors for sexual aggression, and found highly supportive results for the CMM model.

Inclusion of General Hostile Personality Characteristics

The next key study in this line of research on the Confluence Model was a longitudinal study by Malamuth, Linz, Heavey, Barnes, and Acker (1995). Three general hypotheses were empirically tested in this research:

1. The same two-path ‘causal structure’ would be useful not only for cross-sectional ‘prediction’ but also for the longitudinal prediction of sexual aggression, above and beyond the prediction achieved by earlier sexual aggression alone.
2. A particular subset of the same characteristics used to predict sexual aggression would also predict general dysfunction and violence in relations with women.
3. In keeping with the ‘hierarchical-mediation’ approach, certain general personality and behavioural characteristics would only contribute indirectly to sexual aggression via mediation by more specific factors.
This study followed up approximately 150 men for whom data had been collected from approximately 10 years earlier. All three hypotheses were supported, but we will elaborate here only on the third one. The investigators incorporated in their assessment of the men's characteristics several additional scales designed to measure general 'hostile' personality characteristics not previously assessed in this line of research. The hierarchical approach emphasized here predicts that these relatively general characteristics would contribute indirectly to sexual aggression via mediation by some of the more specific factors incorporated within the Confluence Model. A particularly important general construct to consider here was labelled Proneness to General Hostility. It was a composite of four reliable and validated scales, each with multiple items (ranging from 16 to 40). More detailed descriptions of these scales were given by Malamuth et al. (1995). Two of these scales measured impulsive tendencies. The first was the Irritability scale, assessing individual differences in reacting impulsivity or rudely to slight provocations or disagreements (characteristics likely to lead to impulsive aggression). A second related measure was the Impulsivity scale shown previously to affect various types of antisocial behaviour in many populations and settings. The other two scales measured the intensity of emotional reactions, with particular focus on 'emotional dyscontrol'. One of these was the Emotional Susceptibility scale, measuring feelings of discomfort, inadequacy, and vulnerability. The other was the Affective Intensity scale, assessing affective responses to emotion-provoking and threatening life events.

The findings of this research provided support for the Confluence Model. Specifically, the Proneness to General Hostility composite indirectly predicted sexually aggressive behaviour only via mediation by the more proximate predictor of Hostile Masculinity (see Figure 3.3). In contrast, non-sexual aggression against women was directly predicted by the Proneness to General Hostility composite. Vega and

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2 Similarly, another factor, Sex Role Stress (i.e., the extent to which a person experienced stress when perceived in ways inconsistent with traditional male sex roles) indirectly predicted sexual aggression, again mediated via the Hostile Masculinity construct. Because it is less germane to the perspective presented here, it is not included in the relevant figure.
Malamuth (2007) replicated and extended these findings of the Confluence Model in another sample of non-criminals, finding support for virtually all of the features of the model as shown in Figure 3.3.

Inclusion of Nurturance/Empathy as an Attenuator

The factors described above are risk factors increasing the likelihood of sexual aggression. The next study pertaining to the development of the Confluence Model, by Dean and Malamuth (1997), sought in contrast to examine the role of empathic, nurturing personality characteristics, hypothesized as attenuators of risk. Therefore, in addition to assessing the risk factors, the investigators measured the broad personality dimensions of dominance (egotistical, self-oriented) versus nurturance (other-oriented, empathic). As predicted, Dean and Malamuth (1997) found that such a ‘self-centred’ versus ‘other-concerned’ dimension indeed moderated sexually aggressive behaviour. These data confirmed that when a man had the risk characteristics included in the Confluence Model but was also high on his compassion and empathy for others, there was only a weak relationship between the risk factors and actual sexually aggressive behaviour (although a measure of sexually aggressive fantasies showed a strong link with the risk variables). When a person was relatively low on their compassion or empathy for others, there was a strong link between the risk factors and actual sexually aggressive behaviour, with those high on all of the risk factors showing the expected ‘interactive’ effect (i.e., the level of sexual aggression was much higher than in all of the other risk level combinations).

Replications and Extensions of the Findings of the Confluence Model

Throughout the years, the findings of CMM have been successfully replicated both by us and various other researchers (see several examples below). Further, relevant elaborations on certain aspects of the constellations comprising this model have been made to fit with the context and aims of a particular study. Detailing all these findings is beyond the scope of this chapter; however, key findings and more recent research are summarized below.

Christopher, Owens, and Stecker (1993) successfully replicated and elaborated on the Confluence Model using a non-criminal sample. In particular, they assessed more fully an aspect of the Hostile Masculinity dimension, namely the feelings of antagonism, anger, rejection, and hurt, and showed its importance vis-à-vis relations with women. In another study, Wheeler, George, and Dahl (2002) replicated and extended the findings of Dean and Malamuth (1997) using a different measure of the attenuate nurturance/empathy dimension. Additional support for the key aspects of CMM was found in research by Lim and Howard (1998), who replicated the Confluence Model in Singapore and also included measures of such general constructs as ‘Antisocial’ (i.e., lack of concern about how others react to one’s behaviours) and ‘Belligerence’ (impulsiveness and general antisocial behaviour).
Based on two samples of US university undergraduates, Sisco and Figueredo (2008) found that in the prediction of sexual aggression, the Confluence Model fitted data well and better than a comparable model, i.e., the Power-Assertion model. This was further supported in a large laboratory experiment investigation by Noel, Maisto, Johnson, and Jackson (2009). Here it was found that key individual difference factors from the Confluence Model enhanced the precision of the prediction of risk of sexual aggression by young men under the influence of alcohol.

In this regard, the effects of alcohol use on sexual aggression were similarly highlighted in a nationwide online study of men, also investigating the core constellations of the Confluence Model in the prediction of sexual aggression (Greene & Davis, 2011). Here, it was found that the highest levels of sexual aggression were evident among the groups of men who scored the highest on alcohol consumption, hostile masculinity, and impersonal sex. This essentially confirms the core contentions of the Confluence Model but also implies that the incorporation of situational factors such as alcohol consumption may further improve the predictive power of the Confluence Model on sexual aggressive behaviours (Hoyt & Yeater, 2011). This suggestion has also been proposed by Abbey’s group on the basis of a series of studies using the Confluence Model to predict sexual aggression by incorporating situational factors such as alcohol consumption (Abbey, Jacques-Tiura, & Lebreton, 2011; Abbey, Parkhill, Jacques-Tiura, & Saenz, 2009; Abbey, Wegner, Pierce, & Jacques-Tiura, 2012; Jacques-Tiura, Abbey, Parkhill, & Zawacki, 2007; Parkhill & Abbey, 2008; Purdie, Abbey, & Jacques-Tiura, 2010). Most recently, Casey, Masters, Beadnell, Hoppe, Morrison and Wells (2014) found much support for the Confluence Model in a racially diverse, community-based sample of 555 heterosexually active men aged 18–25 years. Accordingly, in these studies, the Confluence Model was successfully replicated and extended with situational factors such as alcohol consumption in the prediction of various sexual aggressive behaviours using a variety of samples.

There have also been successful replications and extensions of the CMM with criminal samples. Johnson and Knight (2000) studied a sample of 122 juvenile offenders from five treatment centres. They examined the relevance of the CMM with this sample and found that the key elements of the CMM replicated very well. They concluded that ‘the present study does uncover commonalities between the paths leading to sexually coercive behaviour in our sample of juvenile offenders and Malamuth et al.’s (1991) sample of college males’ (p. 176). Knight and Sims-Knight (2003, 2005) conducted a similar analysis in a sample of 275 adult male sexual offenders and found support for a model similar to the Confluence Model. They suggested that there may be a third constellation of characteristics more specific to ‘callous, unemotional’ characteristics. Similarly, Malamuth (1998) had suggested the possibility of a third interacting, but attenuating, constellation in the Confluence Model, using a person’s scores of Dominance/Narcissism versus Nurturance/Empathy, and a similar approach was used by Dean and Malamuth (1997). Accordingly, there may be a further need for clarification regarding the possibility of a third factor/constellation in the development of the Confluence Model. However, in our view, the data presented by Knight and Sims-Knight seem to support more closely the ‘two-path’ mediational model, since they found that the Callous/Unemotional construct only indirectly affected
sexual aggression, via elements of the Hostile Masculinity constellation (specifically, aggressive-sexual fantasy).

A wide range of predictions informed by the theoretical framework of CMM have been successfully tested, validated, and/or replicated using both laboratory, cross-sectional, and longitudinal studies in university samples of mainland Asian-American, Hawaiian Asian-American, and American European men (e.g., Hall, Sue, Stanley, & Lilly, 2005; Hall, DeGarmo, Eap, Teten, & Sue, 2006; Leibold & McConnell, 2004; Malamuth et al., 2012; Vega & Malamuth, 2007; Thompson, Swartout, & Koss, 2013; Wheeler et al., 2002), and also in criminal and community samples of African-American and Caucasian men (e.g., Abbey, Parkhill, BeShears, Clinton-Sherrard, & Zawacki, 2006; Hald & Malamuth, 2015; Hunter, Figueredo, & Malamuth, 2010; Jacques-Tiura et al., 2007; Kingston, Fedoroff, Firestone, Curry, & Bradford, 2008). Moreover, highly successful replications of the Confluence Model have been reported in such diverse countries as Spain (Martin, Vergeles, Acevedo, Sanchez, & Visa, 2005), Singapore (Lim & Howard, 1998), Denmark (Hald, Malamuth, & Lange, 2013; Hald & Malamuth, 2015), and Germany using both heterosexual and homosexual samples (e.g., Krahé, Scheinberger-Olwig, & Schütze, 2001). Finally, components of CMM (e.g., Hostile Masculinity) have also been subjected to meta-analytic testing and been shown to be the most predictive of sexual aggression out of a large number of competing constructs (e.g., Murnen, Wright, & Kalzuny, 2002).

Confluence Model and Differing Levels of Assessment

The Confluence Model as a Unifying Framework

The Confluence Model permits the unification of much research that has investigated portions related to this model, though often using other labels for the same or similar constructs. For example, Kossen, Kelly, and White (1997) studied non-criminal men who completed the Socialization scale mentioned above (Gough, 1994), assessing impulsive antisocial behavior. This factor corresponds to the Confluence Model's Delinquency factor, an aspect of the Impersonal Sex constellation. Kossen et al. (1997) also administered the Narcissistic Personality Inventory (Raskin & Hall, 1981), assessing traits that closely correspond to aspects of Hostile Masculinity (e.g., see Malamuth et al., 1993).

In keeping with what we would expect, based on the Confluence Model, Kossen et al. (1997) found that both the Socialization scale and the Narcissistic Personality Inventory, and also their interaction, contributed to the prediction of sexual aggression. Essentially, this was a test of key elements of the Confluence Model, although the investigators did not specifically refer to this model. We believe that this is illustrative for a great deal of the published work in this area, which may be readily positioned and unified within the framework of the Confluence Model.

Moreover, by identifying certain key factors of the profile of sexually aggressive men, the Confluence Model can serve as a useful framework for examining the role of other factors potentially relevant to sexual aggression. This is due to the model's ability to include and 'control' for what have already been identified as reliable associations with
the characteristics of sexual aggressors prior to the addition of other factors that may simply turn out to be spurious correlates or redundant factors when procedures controlling for already established antecedents of sexual aggression are employed. This was illustrated by the findings of Malamuth, Addison, and Koss (2000) and replicated by Vega and Malamuth (2007). They examined the relationship between pornography and sexual aggression by embedding their assessment within the Confluence Model. With a national random sample of men, they first classified participants on the basis of the Confluence Model's dimensions into varying levels of risk for sexually aggression. Within these differing levels of risk, they then examined the predictive utility of pornography consumption (this approach is somewhat similar to the 'classification tree' approach used by Steadman et al., 2000). It was found that among those classified at relatively low risk for sexual aggression, there was only a small difference in sexual aggression as a function of pornography use. In contrast, pornography use was indeed a very good discriminator among those previously determined to be at high risk for sexual aggression. Among high-risk men, those who additionally were very frequent users of pornography were much more likely to have engaged in sexual aggression than their counterparts who consumed pornography less frequently. This finding was mirrored in a study by Malamuth et al. (2012), where the outcome was attitudes supporting violence against women. They also observed that the highest levels of attitudes supporting violence against women were found among men at relatively high risk for sexual aggression who consumed pornography most frequently.

Extending this research and the cross-cultural utility of the model, Hald and Malamuth (2015) similarly demonstrated that even in relatively peaceful societies with a presumed low number of men with a high proclivity to sexual aggression, core contentions of the Confluence Model may still be applied and indeed supported. Accordingly, using a Danish young adult population and based on one of the largest experimental studies of exposure to pornography, Hald and Malamuth (2015) used the Confluence Model to predict individual difference moderation of the personality trait of agreeableness from the Five-Factor Model of personality (see also Costa & McCrae, 1992). Further, the Confluence Model was used to predict that any such individual difference moderation was mediated by sexual arousal. As predicted, among men, experimental effects of exposure on attitudes supporting violence against women was evident only for men low in agreeableness and this effect was mediated by sexual arousal. Similar results emerged from a comparable experimental study on pornography and a variety of sexist attitudes by Hald et al. (2013). Here, effects of exposure to pornography were also moderated by individual differences and these effects were mediated by sexual arousal.

The results emerging from such experimental studies are important in that using the CMM may enable researchers to understand better for whom adverse effects of pornography are most likely and the situational, cognitive, and emotional mechanisms by which such effects may occur. Further, they highlight problems with research where only main effects or overall associations between pornography consumption and outcome variables are assessed. Because such research may overlook significant associations that exist only at some subgroup levels, researchers may erroneously conclude that pornography holds no significant associations with the outcomes investigated (see
also Kingston & Malamuth, 2011). These results are important in that they demonstrate a wide applicability of the Confluence Model, here exemplified via pornography research, across cultures, samples, contexts, and outcome variables related to sexual aggression and their possible antecedents.

Assessment Strategies – Differing Levels of Assessment

It is revealing to compare the Five-Factor Model (FFM) of personality (McCrae, 2002), Hare’s Psychopathy PCL-R scale (Hare, 1991; Hare, Clark, Grann, & Thornton, 2000; Hare & Neumann, 2008), and the Confluence Model on assessment and prediction issues (see Malamuth, 2003). Each represents different levels of generality and they were developed for somewhat differing purposes, yet they share some common properties and goals.

The FFM is a broad-based approach that attempts to encompass as much of the variance across all of the descriptors of personality as possible by extracting a few higher order factors. If one’s purpose is to predict a wide range of behaviours or criteria, then this may be the best and most parsimonious strategy (for discussions of the advantages and disadvantages of different levels of ‘broad band’ versus ‘narrow band’ assessment strategies, see De Vries, De Vries, & Born, 2011; Hong & Paunonen, 2011; Paunonen & Adelheid, 2001).

The factors included within CMM mostly encompass a ‘narrow band’ approach, but there are also some broad-based aspects. It was designed to develop the best prediction for a particular outcome, namely sexual aggression (although it was hoped that it could be used as an example of how to predict other types of behaviours). Consequently, researchers using this strategy attempted to (1) identify all of the risk factors shown to predict this particular outcome, (2) organize them in the most coherent and parsimonious manner, and (3) create a replicable, versatile, predictive model of the characteristics of sexual aggressors. Therefore, ‘higher order’ or latent factors were extracted and used only to the extent that they effectively encompassed common variance of the risk factors shown to predict sexual aggression. For example, scales such as Hostility Towards Women, Adversarial Sexual Beliefs and Sexual Dominance were found consistently to have key common variance that could be encompassed in a latent construct or alternatively in a composite labelled Hostile Masculinity. By using structural equation modelling, we not only used the factor analysis strategy represented by the FFM approach, encompassing a much wider range of characteristics, but also incorporated ‘mediation’ whereby certain more general factors (e.g., our General Hostility factor) characterize sexual aggressors only if the man also has certain attributes (e.g., Hostile Masculinity) more proximate to sexual aggression.

Hare’s well known Psychopathy scale and research have been applied to the area of sexual aggression (e.g., Muñoz, Khan, & Cordwell, 2011) and also to many other antisocial behaviours. It may be thought of as a strategy for predicting a specific class of behaviours (i.e., antisocial behaviour) rather than a particular behaviour only (i.e., sexual aggression). It ‘bundles together’ in a single scale (1) the most relevant parts of the broader bands of personality and (2) previous antisocial behaviour. Using an FFM analysis, Lynam (2002) argued that psychopathy correlates with a diverse set of behaviours because it is fact is a collection of diverse traits that has not been
adequately shown to constitute a taxon. He noted that there has been evidence for
the taxonicity of the antisocial lifestyle and childhood antisocial behaviour items (Factor
2 of Hare’s Psychopathy scale) but not for the taxonicity of the interpersonal and
affective items of (Factor 1 of this scale). He suggested that “the differences observed
between psychopathic and non-psychopathic individuals are matters of degree rather
than differences in kind” (p. 344). He further noted that (pp. 343–344)

... certain individuals seem to have little control over their actions. On this basis, these indi-
viduals may ask how can such a disorder be a collection of facets? Is this not evidence for the
distinctiveness of psychopathy? I believe it is not evidence for the taxonicity of psychopathy.
Instead, I believe that psychopathy consistently comes to the attention of mental health
professionals and criminal justice workers because it is such a virulent collection of traits...
high Antagonism, low Conscientiousness, and low anxiety ... In its most full-blown form,
the psychopathic individual is not restrained by fear, concern for others, or the ability to
reflect on the longer term outcomes of his or her behaviour.

In contrast, Harpur et al. (2002) argued that “the prototypical characteristics of
the psychopath combine several dimensions of the FFM. These characteristics form
a unified whole when seen in a psychopathic inmate but are presented by distinct
dimensions in the FFM” (p. 316). Although we largely agree with Lynam in his con-
ceptualization of psychopathy as a collection of traits particularly relevant to antisocial
behaviour, we believe that the debate may focus on the question of whether, when
several of the relevant risk factors co-occur in the same individual, they create more
than a simple additive risk contributed by each of the individual characteristics alone.
The view that there is a ‘synergistic’ or ‘interactive’ effect has been an important
emphasis in CMM research. Indeed, it is what led to the use of the term ‘confluence’.
Research on the Confluence Model has repeatedly demonstrated such an interaction
(e.g., Malamuth, 1986; Malamuth et al., 1991, 1995; Reyes & Foshee, 2013). Psychop-
athy researchers have also turned their attention to examining interaction effects
(e.g., Harpur et al., 2002), and some researchers claim to have obtained evidence for
psychopathy as a discrete class (Harris, Rice, & Quinsey, 1994; Skilling, Harris, Rice,
& Quinsey, 2002).

Based on the above, our point is simply that each of these three approaches, the
FFM, Hare’s PCL-R Psychopathy scale, and the Confluence Model, may be best suited
for particular purposes: the FFM approach for a parsimonious assessment strategy for
predicting a wide variety of behaviours, the PCL-R Psychopathy scale for predicting
across a variety of antisocial behaviours only, and the Confluence Model for predicting
sexual aggression.

Interestingly, in this regard, recent studies on experimental effects of pornography
by Hald and Malamuth (2015) and Hald, Malamuth, and Lange (2013), as noted
above, using the FFM within the general framework of CMM, show that even at this
general level of personality assessment a core contention of the Confluence Model was
supported empirically: it was predicted and found in an experimental study that the
effect of exposure to pornography on attitudes supporting violence against women and
sexist attitudes occurred only among low-in-agreeableness individuals (i.e., personality
moderation) and that these effects to various extents would be mediated by sexual
arousal to the pornography content. These findings are among the first to suggest
tentatively that elements of the FFM may in fact be successfully incorporated into the Confluence Model in the prediction of sexually aggressive attitudes or behaviours along with sexual arousal mediation.

Assessing Levels Within a Hierarchy

The various research findings described in this chapter suggest that a comprehensive model of the characteristics of sexual aggressors needs to include various levels of ‘broad band’ and more ‘narrow band’ characteristics. As indicated above, the Five-Factor Model of personality, the Psychopathy scale, and the Confluence Model represent different levels of assessment, moving from the more general to the more specific (although the Confluence Model includes some general and some specific factors). Developments in personality theory and assessment may provide some relevant guidance regarding the utility of assessment at each of these levels:

Description based on a few higher-order traits offers a convenient and parsimonious way to communicate about personality... Specific treatment decisions, however, seem to require the detailed evaluation of personality provided by description of the lower-order traits. ... It is not clear whether the lower-order traits are simply subcomponents of the higher-order traits or whether they are separate entities that co-occur to create the higher-order trait. ... Behaviour-genetic analyses of twin study data are beginning to provide an answer to this question. ... That the specific facet traits of the five-factor model have substantial residual variance when the effects of the five higher-order dimensions are removed. ... personality phenotypes are based on a large number of genetic building blocks that have relatively specific effects and a few factors with more widespread effects, ... For this reason, the most important level in the hierarchy for coding relevant traits is in the basic or lower-order level. (Livesley, 2001, p. 32)

The above quotation not only strengthens the rationale for the relatively ‘lower order’ level of the Confluence Model but also highlights the need for research to elucidate more precisely the mechanisms that link ‘higher order’ general hostile/antisocial factors (or traits) to the ‘narrower’, more proximate factors directly predictive of sexual aggression. A full description of the various possibilities is beyond the scope of this chapter, but for illustrative purposes two will be highlighted. One possibility is that the presence of relatively general antisocial attributes may increase ‘receptivity’ to more specific, related ones. For example, a person who has more general hostile emotions may be more open to cultural or other messages that encourage hostility, domination of and prejudice towards certain ‘out-groups’ such as minorities, women, gays, and so forth. The particular subgroups towards which particular hostile feelings become directed may vary dramatically from one cultural (and/or individual developmental) context to another. Therefore, a person possessing general hostile personality characteristics may in one context develop hostile feelings towards one group and not another, whereas in a different context, a totally different group may become the ‘legitimate’ target for developing those hostile emotions and related characteristics. Therefore, it may be only partially informative to determine whether an individual has general hostile characteristics without more specific information about how, when, and towards whom such characteristics are manifested.
A second possibility is 'combinatorial', both additive and interactional. For example, high levels of hostility alone may result in a greater likelihood of various forms of general antisocial behaviour, including, but not particular to, sexual aggression. However, high hostility combined with high sexual dominance may be particularly likely to result in high levels of sexual aggression. High sexual dominance without high hostility may result in engagement in some forms of sexual expression and fantasy (e.g., sadomasochism) but may not be expressed in physical sexual aggression. Also relevant would be the combination with attenuating factors such as empathy.

Attention to combinatorial analyses in future research may also help clarify the differences between criminal and non-criminal sexual aggressors. Although we are suggesting that members of both groups will often show some elevations on both general hostile/antisocial characteristics (i.e., psychopathic) and the more specific factors pertaining to sexual aggression (e.g., hostile masculinity characteristics), they may differ in the extent to which each group is high on one or the other set of characteristics. As suggested earlier, the criminal samples may be particularly high on the hostile/antisocial characteristics and show only relatively moderate elevations on some of the specific characteristics, whereas the non-criminals may show the opposite pattern. Moreover, the criminal samples are likely to have other relevant combinatorial factors (e.g., lower intelligence and social skills, higher co-morbidity of other negative factors).

Conclusions

The Confluence Model has been a pioneer in the development of empirical research and theory regarding the primary characteristics of men who are more likely to commit acts of sexual aggression against women. It was the first in the line of research to undertake a multifactorial assessment of risk factors and to identify key characteristics that are predictive of such aggression, particularly among men in the general population. However, recent models of the characteristics of men identified by the judicial system as sexual aggressors also have some similarities to the Confluence Model. A noteworthy feature of the CMM version of the model is the emphasis on relatively more distal general antisocial risk factors that influence the likelihood of sexual aggression via mediation and moderation by more proximate risk factors that are more specific to sexual aggression. The CMM has inspired much research by other investigators, confirming that the addition of such ‘specific’ risk factors, including two constellations labelled Hostile Masculinity (variously operationalized as rape myth acceptance, sexual dominance, and misogyny) and a tendency towards Impersonal Sex, add to the prediction of aggression against women above the prediction achieved by more general risk factors such as violent home environments, delinquent/antisocial tendencies, and a narcissistic personality. CMM has also led to research demonstrating that such risk factors interact with situational variables, such as heavy consumption of pornography and alcohol, to increase the risk for sexual aggression.
References


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