

Psychopathy and violence: increasing specificity

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A large body of literature has established that the construct of psychopathy is broadly related to violence, and the clinical application of the psychopathy construct as a predictor of violence appears to be increasing. This increased application warrants further specification of this relationship. That is, it may be important to identify factors that moderate relationships between psychopathy and violence, and to determine the extent to which subcomponents of the syndrome account for the relationships between psychopathy and specific types of violence. The present review summarises initial attempts to address these goals. We begin by summarising recent trends in the forensic application of the psychopathy construct. We then examine evidence bearing on the extent to which the predictive power of psychopathy for violence is moderated by other factors. Finally, we examine relationships between subcomponents of the psychopathy construct and specific types of violent and aggressive behaviour to examine whether relationships between psychopathy and violence are accounted for by specific components of psychopathy. (*Netherlands Journal of Psychology*, 63, 136-143.)

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Psychopathy is a personality disorder characterised by a constellation of traits including impul-

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sivity, callousness, interpersonal manipulation, and irresponsibility. The psychopathic personality has long been identified as a correlate of anti-social behaviour, and the study of the disorder as a relevant factor in the understanding of persistent criminality has a long history (Pinel, 1801). However, until relatively recently, interest in the construct was largely confined to students of psychopathology. In recent years there has been a dramatic increase in the application of the psychopathy construct. This increase is largely attributable to the power of psychopathy as a predictor of violence (Walsh & Walsh, 2006). Indeed, numerous studies have identified psychopathy

as a reliable predictor of violence across varied populations, and the relationship between psychopathy and violence is well established (for a review see Hare, 2003).

However, the nature of this relationship warrants further examination to determine the extent to which the relationship between psychopathy and violence is moderated by other predictors of violence. Such an examination might allow more careful specification of contexts in which the application of psychopathy is appropriate. In addition, violence is not a homogeneous construct (Megargee, 1970), and as such it may be important to refine our understanding of which types of violence are most strongly related to psychopathy and its constituent parts. In the present review we summarise several studies by our group that have examined potential moderators of the relationship between psychopathy and violence. We also review studies addressing relationships between subcomponents of the psychopathy construct and specific types of violence and aggression in order to examine whether relationships between psychopathy and violence are mediated by one or more specific dimensions underlying psychopathy. Because Hare's Psychopathy Checklist (PCL) and its derivatives (PCL-R, PCL-SV, PCL-YV) are the most widely used and well-validated measures of psychopathy (Hare, 2003), we confine our review to studies that have employed the PCL measures.

We begin by specifying the ways in which the psychopathy construct is currently being applied. To this end, we summarise trends in the forensic application of psychopathy as reflected in the US legal system. The second part of our review surveys recent work aimed at determining the extent to which the relationship between psychopathy and violence is moderated by other correlates of violence. Specifically, we examine the stability of the relationship between psychopathy and violence across levels of intelligence, socioeconomic status (SES), and ethnicity. In the third section of this survey we examine the extent to which psychopathy and its constituent parts are related to specific types of violence and aggression.

Forensic application of psychopathy

In 1996 Robert Hare, the developer of the Psychopathy Checklist (PCL) and related measures (PCL-R, PCL-SV, PCL-YV), predicted that indices of psychopathy would soon enjoy increased prominence in the forensic arena (Hare, 1996). This prediction has largely proven accurate; a recent review by our group confirmed that the evidentiary introduction of PCL-R assessed psychopathy in US courts has increased exponentially in the past decade (Walsh & Walsh, 2006). An examination of entries in legal databases

since the introduction of the first edition of the PCL-R manual in 1991 through to the end of 2004 indicated that the forensic use of the PCL-R is on the rise in recent years; over 90% of the cases in the survey were decided since 2000, and PCL-R psychopathy assessments were discussed in 25 cases decided in 2004, more than in any previous year.

Psychopathy assessments were most frequently introduced during commitment-pursuant-to-sexual-predator-statute proceedings; 75% of the cases in our review fell into this category. In most instances, PCL-R evidence was offered by the state to argue that a defendant posed a high risk of sex offence recidivism, the central issue in sexual predator commitment hearings (Pettila & Otto, 2001). A positive psychopathy assessment was generally cited as a factor in concluding that a defendant would likely commit future sex offences. Evidence involving the PCL-R was less frequently employed by the defence in sexual predator commitment cases to demonstrate that the defendant did not pose a risk of reoffending because he was a non-psychopath. The second most frequent application of psychopathy was in the determination of parole. As was the case in the sexual predator determinations, PCL-R assessed psychopathy was most frequently introduced to argue against conditional release based on an offender's likelihood of recidivism.

Psychopathy assessments have also been introduced during the sentencing phase of death penalty cases. In most of these cases, PCL-R evidence was used to argue that a defendant was likely to commit violence in prison, an aggravating factor warranting the death penalty. However, it has also been successfully argued that the admission of a defendant's PCL-R score at the capital sentence hearing was improper. In one case the introduction of PCL-R evidence was prohibited; the court cited scholarship critical of the use of the PCL-R in death penalty sentencing due to the attenuated relationship between psychopathy and institutional violence (Edens, Pettila, & Buffington-Vollum, 2001). Since the time of that decision further research has emerged which suggests that psychopathy may not be as strong a predictor of institutional misconduct as some proponents have argued (Guy, Edens, Anthony & Douglas, 2005).

The contexts described above account for the majority of the cases in which PCL-R assessed psychopathy has been introduced in US courts. However, psychopathy has also been raised with regard to civil commitment determinations, juvenile transfer to adult court, termination of parental rights, sentence enhancement and mitigation, competence to stand trial, and guilt determination.

In US federal courts, and in many state courts, PCL-R assessments must meet the standard for expert scientific testimony, known as the Daubert rule, before being admitted into evidence (for a review see Faigman & Monahan, 2005). This standard has several components but has generally been interpreted as focusing primarily on the validity and reliability of the scientific evidence. Because the PCL-R has been introduced based on its relation to future dangerousness in the vast majority of cases in our survey, it is in this context that questions of its validity must be addressed. Although PCL-R evidence has generally fared well in being admitted under relevant standards, its admission has not been without controversy (see Walsh & Walsh, 2006, for more details). Indeed, the admission of PCL-R evidence has been rejected at death penalty sentencing, and in cases where low scores were provided as mitigating evidence. PCL-R evidence has also been included among the grounds for appeal in several cases. Moreover, the widespread forensic application of the PCL measures is relatively recent, and it is likely that increased use will be accompanied by increases in the frequency of validity-related challenges to its evidentiary introduction. As such, the determination of contexts in which the PCL measures are valid predictors of violence is critical, as is the identification of factors that might moderate the relationship between psychopathy and violence. For example, although the PCL-R has been established to be a robust predictor of violent recidivism among European American adult males (Hare, Clark, Grann & Thornton, 2000), an equivalent body of research has yet to accrue relating PCL-R scores to violent recidivism in other populations. In the remainder of this review we survey empirical literature that might inform our understanding of moderating factors in the relationship between psychopathy and violence. We also review research that adds specificity to our appreciation of the contexts in which the PCL measures are valid predictors of violence and of the dimensions of psychopathy that are most important in predicting violence.

Moderators of the relationship between psychopathy and violence

IQ

Research has identified IQ as an important predictor of violent behaviour (Gendreau, Goggin, & Little, 1997; Raine, 1993), and the question of the extent to which IQ and psychopathy predict violence independently or through an interactive mechanism has received some empirical attention. IQ has been proposed to moderate the effect of psychopathy on violence such that low IQ psychopaths present greater risk for violence than do high IQ psychopaths and high and low IQ nonpsychopaths (Heilbrun 1979, 1982, 1990).

Conversely, there is also evidence that IQ and psychopathy combine to predict violence in an additive, rather than a multiplicative manner (Holland, Beckett, and Levi, 1981). However, the validity of these early studies was compromised by their use of self-report measures to assess psychopathy.

We revisited the issue of whether IQ and psychopathy predict violence in an additive or multiplicative manner and improved on prior studies by using the PCL-R to assess psychopathy (Walsh, Swogger & Kosson, 2004). We found no evidence of a Psychopathy X IQ interaction in predicting violent offences. Although low IQ psychopaths were indeed the most violent of the groups examined, this finding appeared to reflect additive rather than interactive effects. A parallel analysis that examined psychopathy as a continuous, rather than categorical, variable produced a similar pattern of results: both psychopathy and IQ added uniquely to the prediction of violence after controlling for the other, and the interaction of psychopathy and IQ was unrelated to violence.

Ethnicity

There is considerable evidence to suggest that PCL-R assessed psychopathy is valid in both European Americans (EA) and African Americans (AA) (Skeem, Edens, Camp & Colwell 2004; Sullivan & Kosson, 2006). There is also initial evidence that psychopathy can be adequately measured by the PCL-R in Latino Americans (LA) (Sullivan, Abramowitz, Lopez, & Kosson, 2006). However, several studies have reported differences between EA and AA individuals on laboratory measures of mechanisms thought to underlie psychopathy (Doninger & Kosson, 2001; Lorenz & Newman, 2002), and it has been proposed that ethnicity should be routinely considered in psychopathy research, particularly with regards to criminality (Walsh et al., 2004).

With regard to violence, AA and LA individuals are more likely than EA individuals to report being victims of violence and to be apprehended for the commission of a violent crime (Lauritsen & Sampson, 1998). It is important to underscore that we conceptualise ethnicity as a marker for demographic contexts in American society (Sampson, Morenoff, & Raudenbush et al., 2005) that involves social, historical and demographic factors (Bickford & Massey, 1991, Tonry, 1995), and not as a distinct cause of violence. Indeed, as noted by Barak, Flavin, and Leighton (2001), 'the systems of privilege and inequality derived from the social statuses of class, race and gender are overlapping and have accumulating effects on the type of crime control various groups of people receive' (p.16). As such, the examination of ethnicity and violence does not imply ethnic differences at a genetic or behavioural level

(Skeem, Edens, Sanford & Colwell, 2003; Oakes & Rossi, 2003), and no such implications are intended by the current review.

Several retrospective studies have related psychopathy to history of violence in EA, AA and LA jail inmates (Kosson, Smith, & Newman, 1990; Walsh et al., 2004; Sullivan et al., 2006). Although such examination may be informative, interviews used to score PCL measures query behaviours related to violent and criminal behaviour, and as such, studies that relate psychopathy to violent behaviour that occurred prior to PCL assessment are vulnerable to criterion contamination. Therefore, prospective studies are particularly important for establishing relationships between psychopathy and violence. However, to our knowledge, only one published prospective study has explicitly examined the consistency of the relationship between psychopathy and criminal violence across EA and AA inmates (Walsh & Kosson, 2007), and no prospective studies have examined the relationship between psychopathy and violence in LA inmates. The results of this prospective study appear consistent with postdictive studies in that psychopathy predicted violence among adult males in the community across ethnicity. Specifically, a medium sized (Cohen, 1988) predictive relationship was identified for psychopathy and conviction for violent crimes in both EA and AA jail inmates (Walsh & Kosson, 2007) (See under *Socioeconomic status* for further discussion of this study). Research that examines the predictive power of psychopathy for violence in LA individuals is necessary to establish the validity of PCL-R assessments in this population.

Socioeconomic status

Socioeconomic status (SES) is often cited as an important correlate of violent behaviour, with higher levels of violence associated with lower SES (Ringel, 1996). There is some evidence that SES may moderate relationships between individual factors and criminal behaviour. For example, Lynam, Caspi, Moffit, Wikstrom, Loeber, and Novak (2000) identified an interaction between impulsivity and neighbourhood poverty in the prediction of juvenile delinquency, such that impulsivity was a stronger predictor of juvenile offending in lower income as compared with higher income neighbourhoods. To our knowledge, a study by our group is the only study to specifically examine the interrelationships of psychopathy, violence and SES. In that study (Walsh & Kosson, 2007), we found that SES moderated the relationship between psychopathy and SES in EA individuals, such that psychopathy was related to violence at lower SES, but was unrelated to violence at higher SES. In contrast, the relationship between psychopathy and violence was stable across levels of SES in AA individuals. This finding suggests that SES may

place an important restriction on the predictive power of psychopathy, at least in EA individuals. However, caution is warranted in interpreting this finding pending replication. Moreover, in that study SES was assessed based on individual levels of academic and vocational achievement. Although this is the most commonly used method of measuring SES in psychological research (Ribas, Jr., Moura, Soares, Gomes & Bornstein, 2003), future research that measures both individual and neighbourhood factors might add considerably to our understanding of this potentially important moderator of the relationship between psychopathy and violence.

Psychopathy subcomponents and specific types of violence

A growing body of literature suggests that different aspects of the psychopathic personality may be differentially related to specific types of violent behaviour. Of the different structural models that underlie the PCL scales, the two-factor model (Harpur, Hare, & Hakstian, 1989) has dominated the literature. However, recent studies suggest that these two higher-order dimensions are each composed of two correlated facets (Hare, 2003; Hill, Neumann, & Rogers, 2004), with Factor 1 composed of distinct interpersonal and affective facets, and Factor 2 composed of lifestyle and antisocial facets. In this four-facet model, the interpersonal facet consists of items related to arrogance and a deceitful and manipulative interpersonal style. The affective facet assesses a deficiency of affective experience, including a lack of empathy. The lifestyle facet is comprised of items that assess a tendency toward impulsivity and irresponsibility. The antisocial facet consists of items related to juvenile and adult antisocial behaviour. Although authors of factor analytic studies of psychopathy have consistently emphasised that the psychopathy construct is homogeneous and that the individual facets load on a superordinate psychopathy dimension (e.g., Cooke, Kosson, & Michie, 2001; Cooke & Michie, 2001; Harpur et al., 1989), the use of PCL facets permits a fine-grained examination of the relationships between criteria and specific dimensions underlying psychopathy. Importantly, evidence is accumulating that the PCL facets display distinct relationships to several different indices of violent behaviour, including domestic violence (Swogger, Walsh & Kosson, 2007), instrumental violence (Walsh, Swogger & Kosson, 2003; Vitacco, Neumann, Caldwell, Leistico, & Van Rybroek, 2006), and self-harm (Swogger, Conner, Meldrum, & Caine, 2007). In the following section we review several studies that illustrate specific relationships between PCL facets and varied aspects of violence.

Domestic violence

Perpetrators of domestic violence have been the subject of considerable research attention. Several specialised treatment programmes have been developed to target these offenders (Taft, Murphy, King, Musser, & DeDeyn, 2003; Wolfus & Bierman, 1996), and such specialised treatment suggests that batterers differ from other offenders in important ways. One way that perpetrators of domestic violence may differ from other offenders is with regard to specific personality traits. Importantly, these traits may interact with intervention approaches to impact outcomes (Saunders, 1996). Along these lines, there is evidence that the psychopathic personality may be an important predictive and descriptive construct for the understanding of perpetrators of domestic violence (Gondolf & White, 2001; Huss & Langhinrichsen-Rohling, 2000).

Recently, our group sought to clarify psychopathic features associated with domestic violence by determining whether domestic batterers could be distinguished from the larger pool of offenders based on the four-facet model of psychopathy (Swogger et al., 2007). In order to reduce the confounding impact of general antisociality on our results, we limited analyses to offenders with significant antisocial traits. Batterer/non-batterer status was determined using participant self-report and a file review of criminal charges. Whereas total PCL-R scores did not postdict batterer group membership, facet-level analyses revealed that this finding reflected opposing postdictive relationships between the affective and lifestyle facets. Specifically, scores on the affective subcomponent of psychopathy were positively associated with domestic violence, whereas scores on the lifestyle subcomponent were negatively associated with domestic violence. These results indicate that antisocial batterers may experience less remorse and empathy than other antisocial offenders, and may also display less impulsivity and irresponsibility. Thus, relative to other antisocial offenders, antisocial batterers may require interventions designed to enhance empathy or increase sensitivity to feedback. Although these findings do not argue that interventions targeting impulsivity are unimportant, they suggest that such interventions might have a relatively smaller impact on antisocial batterers than on other antisocial offenders.

Instrumental violence

Instrumentality and reactivity represent a meaningful dimension along which violent acts may differ. Instrumentality refers to the degree to which violence is a means to attain a subsidiary goal, whereas reactivity refers to the use of violence as a direct reaction to perceived threat or provocation, or as a goal unto itself (Sears, Mac-

coby, & Levin, 1957). A number of studies have indicated that psychopathy is associated with instrumental, as opposed to reactive, violence (Cornell, Warren, Hawk, Stafford, Oram, & Pine, 1996; Hart & Dempster, 1998; Woodworth & Porter, 2002; Porter & Woodworth, 2007).

Recent research that has examined subcomponents of psychopathy has refined our understanding of the relationship between psychopathy and instrumental violence. Specifically, a study of adolescents examined the relationships of the four facets of the Psychopathy Checklist-Youth Version (PCL-YV) to instrumental aggression (Vitacco et al., 2006). That study found a positive relationship between total PCL-YV scores and instrumental aggression, and also found that instrumental violence was positively related to interpersonal features of psychopathy and negatively related to the antisocial features.

Preliminary analyses conducted by our group on data from 248 county jail inmates suggest that the relationship between instrumental aggression and interpersonal features of psychopathy is replicable in adults using participants' self-reported most violent acts as a criterion (Walsh et al., 2003). Instrumentality, coded using the Aggressive Incident Coding Sheet (AICS, Cornell et al., 1996), was positively associated with interpersonal facet scores on the PCL-R. This relationship suggests a potential role for grandiosity, superficial charm, and interpersonally manipulative behaviour in potentiating instrumental violence. However, in contrast to Vitacco et al.'s (2005) findings among youth, we also found a significant *positive* relationship between the antisocial subcomponent of psychopathy and instrumental violence among adults. This discrepancy illustrates the caution necessary in making generalisations about relationships between personality dispositions and violence from youth to adult samples and underscores the need for replication of findings.

Self-harm

Early conceptualisations of psychopathy (e.g., Cleckley, 1976) posited an inverse relationship between the disorder and suicide. However, this proposed negative relationship is questionable given that antisocial personality traits have been linked to an increased risk for suicide attempts in community, inpatient, and forensic populations (Bland, Newman, Thompson, & Dyck, 1998; Evren, Kural, & Erkiran, 2006; Verona, Sachs-Ericsson, & Joiner, 2004). Recent studies that have addressed the relationship between psychopathy and suicide (Douglas, Herbozo, Poythress, Belfrage, & Edens, 2006; Verona, Patrick, & Joiner, 2001; Verona, Hicks, & Patrick, 2005) have produced mixed results. Nonetheless, these studies have begun to shed light on the apparent contradiction between theoretical ideas regard-

ing psychopathy and suicide and the findings regarding the broader construct of antisocial personality. Most studies have found either no relationship or a small positive correlation between total psychopathy scores and suicide attempt history. Whereas data suggest that behavioural traits (Factor 2) are positively associated with suicidality, core affective and interpersonal traits of psychopathy (Factor 1) appear to be either negatively associated with or unrelated to suicidal behaviour.

In a study using the four-facet model for the Psychopathy Checklist: Screening Version (PCL: SV) with data from the MacArthur Violence Risk Assessment Study we have begun to further refine the investigation of psychopathy subcomponents and suicidal behaviour (Swogger, Conner, et al., 2007). Consistent with prior results, preliminary analyses in a civil psychiatric sample ($n = 810$) indicate no association between suicide attempts and psychopathy total scores, or scores on the interpersonal and affective features of psychopathy. Our results suggest that only antisocial facet scores are positively associated with 'serious' suicide attempts. Although it is possible that the interpersonal and affective features of psychopathy are less discriminating in a sample characterised by severe psychopathology than they would be in a criminal sample, the consistency of our findings with prior studies using prison samples suggests that antisociality is a more powerful indicator of suicide attempt risk than are other psychopathic features.

Conclusions

Our review indicates that the forensic application of the psychopathy construct as a predictor of violence is on the rise. It is our opinion that this increase mandates further specification of the extent to which the relationship between psychopathy and violence is mediated by other predictors of violence and of the extent to which psychopathy and its constituent subcomponents are related to different types of violence. Research that has responded to the need for increased specificity remains scarce, and the aim of the present review is to summarise that research, and to make recommendations for future inquiry.

With regard to moderators of the relationship between psychopathy and violence, our review suggests that the relationship between psychopathy of violence is generally consistent across IQ and ethnicity, but is not consistent across levels of SES. Moreover, the moderating effects of SES appear to vary across ethnicity; higher SES is protective for violence in European American psychopaths but is not protective among African American psychopaths. Further research is

needed to elucidate this puzzling finding. Prospective research that examines the relationship between psychopathy and violence among Latino Americans would also be informative, and our group has begun work to address both of these issues. In addition, research that examines the stability of the relationship between psychopathy and violence across other contextual and individual predictors of violence such as neighbourhood poverty, substance abuse, and comorbid psychopathology has the potential to substantially enrich our understanding of the appropriate application of the psychopathy construct.

With regard to relationships between subcomponents of psychopathy and different types of violence, current findings illustrate the utility of such narrow band examination. Further study of psychopathy subcomponents and different types of violence may indicate that assessing psychopathic traits, even in the absence of the full manifestation of the disorder, provides useful predictive and descriptive information about a wide range of individuals. For this reason, we recommend that studies that incorporate the PCL scales examine facet-level associations.

However, we also note that the broader construct of psychopathy should not be conflated with its constituent parts. Indeed, the psychopathy construct has a rich theoretical background and has been the subject of decades of research, whereas the examination of subcomponents remains in its infancy. Moreover, there are few published studies addressing the magnitude of the correlations between the factor and facet scores and PCL total scores. Based on an examination of our own dataset (collapsing across ethnicity; $n = 1240$), correlations between facet scores and PCL-R total scores range from 0.72 to 0.74, which suggests that no single facet adequately captures the variance in PCL-R total scores. Consequently, whereas the examination of subcomponents of psychopathy may add specificity to our understanding of psychopathy and violence, the consideration of relationships between the disorder of psychopathy as a whole and various measures of violence remains important.

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