

## A cognitive developmental approach to morality: investigating the psychopath

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### Abstract

Various social animal species have been noted to inhibit aggressive attacks when a conspecific displays submission cues. Blair (1993) has suggested that humans possess a functionally similar mechanism which mediates the suppression of aggression in the context of distress cues. He has suggested that this mechanism is a prerequisite for the development of the moral/conventional distinction; the consistently observed distinction in subject's judgments between moral and conventional transgressions. Psychopaths may lack this violence inhibitor. A causal model is developed showing how the lack of this mechanism would explain the core behavioural symptoms associated with the psychopathic disorder. A prediction of such a causal model would be that psychopaths should fail to make the moral/conventional distinction. This prediction was confirmed. The implication of this finding for other theories of morality is discussed.

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### 1. Introduction

According to DSM-III-R (American Psychological Association, 1987), the essential feature of antisocial personality disorder (APD) is "a pattern of irresponsible and antisocial behaviour beginning in childhood or early adolescence and continuing into adulthood". Individuals with APD "tend to be irritable and aggressive and to get repeatedly into physical fights and assaults, including spouse- or child-beating" (American Psychological Association, 1987). Psychopaths<sup>1</sup> show "early behavioural problems" and they

<sup>1</sup> The diagnostic criteria for APD and psychopathic disorder are similar. Hare (1985b) found that 73% of those patients diagnosed as APD by two clinicians fulfilled Hare's criteria for psychopathy. It is plausible to suggest that the two criteria are two correlated behavioural descriptions of the same disorder.

are described as “lacking remorse or guilt” and as being “callous/lacking empathy” (items 12, 6 and 8 on Hare’s (1985a) Psychopathy Checklist). They show, in summary, an early onset of extremely aggressive behaviour that is not tempered by any sense of guilt or empathy with the victim.

Given the recurrent theme of the early onset of psychopathic behaviour, it would seem reasonable to describe the disorder in developmental terms. However, many theories of psychopathy have ignored this development aspect. For example, the “frontal/limbic system” position of Gorenstein (1982; Gorenstein & Newman, 1980) makes no reference to development.<sup>2</sup> Nor is there reference to development in either Hare, Williamson, and Harpur’s (1988) discussion of the relationship between psychopathy and language or in Gough’s (1948) paper suggesting that psychopathy is due to a deficit in role taking. Mullen (1992) does describe psychopathy as a developmental disorder but the individuals he describes as psychopathic do not match the criteria of APD in DSM-III-R or the criteria of psychopathic according to Hare’s (1980, 1985a) Psychopathy Checklist (PCL).

The main exceptions to these developmental approaches are what might be termed the Punishment positions of Eysenck (e.g., 1964) and Trasler (1978). These authors suggest a model of the development of morality and from this make claims as to the impairment in psychopaths. These authors principally claim that socialization is achieved through punishment. Remorse, for example, is viewed as a consequence of conditioning: “Conscience is a conditioned reflex” (Eysenck, 1964). The basic position of these authors is that anxiety, induced by the transgression being punished, becomes associated with the transgression. This argument is extended to the claim that psychopathy is a consequence of a deficiency in conditionability. Early work did suggest that psychopaths might be impoverished in “conditionability”. Lykken (1957) observed that psychopaths were significantly inferior to normal controls and a “neurotic sociopathic” group in attaining a conditioned galvanic skin response to a buzzer that had previously been paired with an electric shock. However, the central thrust of the Punishment positions has been discredited. Developmental studies have clearly demonstrated that punishment is not associated with a reduction in antisocial behaviour; instead, the use of inductive techniques (e.g., asking the child how the victim of the act feels) is associated with a reduction in antisocial behaviour; see Hoffman (1977) for a review.

### *1.1. A violence inhibition mechanism*

Several ethologists (Eibl-Eibesfeldt, 1970; Lorenz, 1966) have proposed the existence of mechanisms which control aggression in some social animal species. These ethologists noted that the display of submission cues to a

<sup>2</sup> Though Damasio, Tranel, and Damasio (1991) do draw a distinction between “acquired sociopathy” following frontal damage in adulthood and clinical, DSM-III (1980) defined sociopathy following damage “during the development of his personality”.

conspecific aggressor resulted in the termination of the attack. For example, dogs when attacked by a stronger opponent bare their throats. This results in the cessation of the fight. Blair (1993) proposed a model of the development of morality which implies a specific cause for psychopathy. He suggested that humans might possess a functionally analogous mechanism: a violence inhibition mechanism (VIM). He considered VIM to be a cognitive mechanism which, when activated by non-verbal communications of distress (i.e., sad facial expression, the sight and sound of tears), initiates a withdrawal response; a schema will be activated predisposing the individual to withdraw from the attack. In line with this suggestion, Camras (1977) has observed that the display of distress cues (a sad facial expression) does result in the termination of aggression in 4- to 7-year-olds. She studied the use and the effect of facial expressions in children defending possessions. When a child displayed a sad facial expression when resisting another child's attempt to take a possession, the aggressor child usually terminated his/her demands and allowed the original possessor to continue playing "for a relatively long time".

Distress cues are assumed to activate predispositions to withdraw in any observer who processes them, regardless of whether that observer is the aggressor or a bystander. However, this does not imply that the final behavioural responses of all observers who process a victim's distress cues are the same. The activation of VIM in any observer will predispose him/her to withdraw from the situation. However, VIM is not the only cognitive device controlling behaviour; for example, there are the executive functions (e.g., the Supervisory Attentional System; see Norman & Shallice, 1986). These other cognitive devices may determine the final response. Thus, in a given aggressive situation, an attacker may continue to attack and an observer initiate an intervention; in both cases, the VIM-mediated predisposition to withdraw will have been overruled by executive functioning. Finally, the strength of the withdrawal response is assumed to be a function of the degree of activation of VIM. An isolated sad facial expression may excite limited withdrawal. A screaming, sobbing individual may excite much greater withdrawal.<sup>3</sup>

### *1.2. Developmental consequences of VIM*

Blair (1993) suggested that VIM is a prerequisite for the development of three aspects of "morality": the moral emotions (e.g., sympathy, guilt,

<sup>3</sup> Again, it should be noted that the activation of VIM does not inevitably result in the withdrawal of the individual from the situation. The operation of executive functions may overrule the activation of VIM; the individual may help the distressed person. Frequent instances of helping a distressed individual may result in the development of an approach schema. In this case helping behaviour could become the prepotent response to certain distress cue situations.

remorse and empathy), the inhibition of violent action and the moral/conventional distinction.

(1) *The moral emotions.* Behavioural interruptions have been claimed to induce arousal responses (e.g., Meyer, 1956; Mandler, 1984). Mandler (1984) has claimed that emotions are a consequence of the interpretation of arousal through a process of “meaning analysis”. In addition, Mandler has claimed that the interpretation of arousal following a withdrawal response results in the consequent emotional state being experienced as aversive. As stated above, Blair (1993) suggested that the operation of VIM results in the interruption of ongoing behaviour; the activation of VIM results in a withdrawal response which will directly interrupt ongoing behaviour. Following Mandler, Blair suggested that the arousal induced by the activation of VIM will be interpreted as one of the moral emotions. In addition, since VIM initiates a withdrawal response, he suggested that these moral emotions would be experienced as aversive. In line with this, several studies have demonstrated that perceived distress in others generates an aversive emotional reaction that can be measured as physiological arousal in observers (e.g., Bandura & Rosenthal, 1966; Berger, 1962; Craig & Lowery, 1969; Krebs, 1975).<sup>4</sup>

Empathy is defined as “an affective response more appropriate to someone else’s situation than to one’s own” (Hoffman, 1987, p. 48). It is an emotional response to another’s state. Empathy is frequently considered to be a product of role taking (Batson, Fultz, & Schoenrade, 1987). Role taking is the creation of a representation of another’s internal state – a calculation of what the other might be thinking/feeling given their situation. Empathy is thus an emotional response to a representation of another’s internal state. However, for the purposes of the present paper this definition will be narrowed further; empathy will be considered to be an emotional reaction to a representation of the distressed internal state of another. The intention here is to provide an account of arousal to the thought of another being distressed as opposed to the sight or sound of their distress. It is empathy, defined in this way, that is most relevant to the description of the psychopath.

During normal development, individuals will witness other individuals displaying distress cues resulting in the activation of VIM. On many occasions the observers may role take with the distressed victims; they will calculate representations of the victim’s internal state (e.g., “she’s suffering”; “what a poor little boy”; “he must be cold and hungry”). There will

<sup>4</sup> Mandler (1984) has claimed that the interpretation of arousal following an approach response results in the valency of the consequent emotional state being positive. Batson (see, for a review, Batson, Fultz, & Schoenrade, 1987) has found that subjects report the emotional experience associated with approach (helping) tendencies to distress cues as being positive. Adjectives subjects use to describe the experience are: tender, warm and soft-hearted.

thus be pairings of distress cues activating VIM with representations formed through role taking. It is suggested here that the representations formed through role taking will become, through classical conditioning, trigger stimuli for VIM. Distress cues can be seen as unconditioned stimuli (US) for the unconditioned response (UR): the activation of VIM. Representations formed through role taking, paired with the US of the distress cues of the target of the role taking, will result in these representations becoming conditioned stimuli for the conditioned response of VIM activation. Thus, an individual may generate empathic arousal to just the thought of someone's distress (e.g., "what a poor little boy") without distress cues being actually processed. In line with this, film sequences, where victims talk about their conditions (potentially initiating role taking in observers) but where they do not actually show distress cues, have been found to induce physiological arousal changes in observers (Eisenberg, Fabes, Bustamante, Mathy, Miller, & Lindholm, 1988; Eisenberg et al., 1992; Fabes, Eisenberg, & Eisenbud, 1993).

(2) *The inhibition of violent action.* As stated above, the postulated operation of VIM initiates a withdrawal response resulting in the on-line interruption of violent action. However, and in addition, it is suggested that *developmentally* VIM results in the inhibition of violent action. The normally developing child will be negatively reinforced by the distress cues every time he engages in any aggressive activity. Through classical conditioning this should result in even the thought of aggression being aversively reinforced; the thought of the aggression will come to trigger VIM. Hence, over time, the child will be less likely, *ceteris paribus*, to engage in violent actions.<sup>5</sup>

(3) *The moral/conventional distinction.* The moral/conventional distinction is the distinction between moral and conventional transgressions found in the judgements of children and adults. Within the literature on this distinction (e.g., Arsenio & Ford, 1985; Nucci & Turiel, 1978; Siegal & Storey, 1985; Smetana, 1981, 1985; Smetana & Braeges, 1990; Tisak & Turiel, 1988; see, for a review, Turiel, Killen, & Helwig, 1987), moral transgressions have been defined by their consequences for the rights and welfare of others, and social conventional transgressions have been defined as violations of the behavioural uniformities that structure social interactions within social systems.

The judgements, "criterion judgements" as Turiel (1983) termed them, that children have been asked to make about moral and conventional

<sup>5</sup> Of course, if the child is rewarded for his attacks, particularly during the attack, either by material gain or by peer/parental praise, the child is likely to overrule VIM and continue the attack. Such a child, by continuing to fight, will obviously not experience a withdrawal response. Consequently, such a child will not experience the aggression as aversive (assuming they do not have to withdraw from the fight because they lost the conflict). Indeed, they may even enjoy the violence (if the aggressor continues to approach the victim child). Such a child will not be less likely to engage in future violent action. Indeed, they may be more likely to aggress.

transgressions can be divided into two broad categories: seriousness and modifiability. Usually, children and adults judge moral transgressions as more serious than conventional transgressions. For example, while all of the transgression situations, whether moral or conventional, are generally judged not *permissible*, conventional transgressions are more likely to be judged *permissible* than moral transgressions (Smetana, 1985, 1986; Smetana & Braeges, 1990; Tisak & Turiel, 1988; Weston & Turiel, 1980). In addition, subjects generally state that moral transgressions are more *serious* than conventional transgressions or rank them as more *serious* than conventional transgressions (Nucci, 1981; Smetana, 1981, 1985; Smetana & Braeges, 1990; Smetana, Bridgeman, & Turiel, 1983; Stoddart & Turiel, 1985). As regards the modifiability category of criterion judgements, the research indicates that moral transgressions are judged *differently* from conventional transgressions. For example, moral transgressions are judged less *rule contingent* than conventional transgressions (Arsenio & Ford, 1985; Smetana, 1981, 1985; Smetana et al., 1983; Smetana, Kelly, & Twentyman, 1984; Nucci, 1981; Nucci & Nucci, 1982; Nucci & Turiel, 1978; Weston & Turiel, 1980); individuals state that moral transgressions are not permissible even in the absence of prohibiting rules while conventional transgressions are judged permissible if there is no rule prohibiting them. In addition, moral transgressions are less under *authority jurisdiction* (the act would not be permissible even if the teacher says that you can do the act) than conventional transgressions (Laupa & Turiel, 1986; Tisak & Turiel, 1984, 1988; Turiel, 1983). The moral/conventional distinction has been found in the judgements of children from the age of 39 months (Smetana, 1981) and across cultures (e.g., Hollos, Leis, & Turiel, 1986; Nucci, Turiel, & Encarnacion-Gawrych, 1983; Song, Smetana, & Kim, 1987).

### 1.3. *Theories of the moral/conventional distinction*

The existing framework of models of the moral/conventional distinction (e.g., Smetana, 1983; Turiel, 1977, 1983; Turiel et al., 1987; Turiel & Smetana, 1984) involves the suggestion that the distinction is a result of the formation of two, independent conceptual domains (see Turiel & Davidson, 1986). These authors have proposed that the child *constructs* these domains from the qualitatively different social interactional consequences of moral and conventional transgressions. This *construction* process has not been well specified by most authors. However, Turiel (1983) has described two forms of manipulation of gathered data which result in the *construction* of what he terms “judgements of moral necessity”. These two forms are: manipulations of past experiences and counter-factual reasoning. Turiel (1983) states that “the child will connect his or her experience of pain (an undesirable experience) to the observed experience of the victim” (p. 43). According to Turiel, by forming this connection the child will generate a proscription against the event which resulted in the victim. In addition, Turiel (1983)

states that the child will arrive at “judgements of moral necessity” through comparison of the performance of the act itself with its opposite. If the constructed consequences of its non-occurrence (there is no victim) are judged to be more “desirable” than the consequences of its occurrence (the victim is harmed), then inferences will be made regarding how people should act in these circumstances. As stated above, the child will judge the presence of a victim as undesirable if he has connected his own experience of pain with that of the victim.

According to Turiel, these same manipulations, when applied to conventional transgressions, will not result in automatic proscriptions. First, Turiel does not consider that there are any past experiences that might result in the generation of proscriptions. Second, Turiel argues that comparison of a conventional act with its opposite will not result in one situation being judged as obviously superior to the other. Taking, for example, the conventional transgression of talking in class, Turiel considers that there is no intrinsic basis for a requirement that children do not talk in class. According to Turiel (1983), it is social organizational factors, such as consensus, rules and authority, that provide meaning to conventional proscriptions.

In summary, therefore, the origin of the moral/conventional distinction, according to Turiel, is the child’s *construed* connection between his personal experience of pain and the observed experience of the victim. It is a consequence of this connection that the child judges any act that results in a victim as wrong whatever the context. It is the child’s experience of his own pain that makes the observed experience of the victim aversive. It would thus be predicted from this that an individual who has never experienced pain would not make the moral/conventional distinction.

Blair (1993), in contrast, suggested that VIM is a prerequisite for the development of the moral/conventional distinction. He claimed that the activation of VIM mediates the performance on the moral/conventional distinction task but that this only occurs after representations of moral transgressions have become stimuli for the activation of VIM. He suggested that repeated pairing of representations of the transgression with the distress cues that are being caused by the act results in these representations of the transgression becoming, through classical conditioning, conditioned stimuli for the activation of VIM. Since conventional transgressions, by definition, do not result in victims, they are therefore never paired with distress cues and will not therefore become stimuli for the activation of VIM. Blair (1993) claimed that it was the on-line operation of VIM which determines the moral/conventional distinction. He suggested that the withdrawal response following the activation of VIM is experienced, through meaning analysis, as aversive (following Mandler’s, 1984, position on value). He suggested that it was this sense of aversion to the moral transgression that resulted in the act being judged as bad. Manipulations of the transgression’s context (i.e., stating that there is no rule against the transgression) would

not alter the activation of VIM by the details of the transgression. Thus, according to this position, the transgression would still be judged bad. Conventional transgressions would not generate this sense of aversion. They are defined as transgressions only by the presence of rules. Removal of the rule, by modifying the transgression context, and the transgression should no longer be judged as bad to do.<sup>6</sup>

#### 1.4. *A developmental account of morality*

In Fig. 1, the developmental consequences of VIM are represented as a causal model. Causal models are divided into three levels: physiological, cognitive and behavioural (see Morton & Frith, 1993). The relationship of connected elements within a causal model is one of causality. Normally, causal models are applied to abnormal development where the absence of a particular neural structure has cognitive and behavioural consequences; e.g., in autism. In this case, “cause” has a straightforward meaning. In the case of normal development, it has the implication of critical necessity. Thus, the model in Fig. 1 represents the claim that VIM causes the development of the moral emotions; i.e., VIM is critically necessary if the moral emotions are to develop normally. Fig. 1 also represents two alternative accounts of the development of VIM: either as the maturation of a physiological structure or as the result of the experience of certain early socialization events. It is possible that VIM is an innately specified physiological structure. Alternatively, VIM may be a consequence of the very early experience of socialization to withdraw from certain distress cue contexts; e.g., when another’s distress cues have been caused by the self. Fig. 1 represents the claim that the autonomic nervous system (ANS) is necessary for the development of all emotions; the ANS provides the arousal which is interpreted as an emotion through meaning analysis (Mandler, 1984). VIM, specifically, allows the development of the moral emotions. VIM, when activated, generates arousal which will be interpreted as one of the moral emotions (see above). In addition, pairing of the activation of VIM with

<sup>6</sup> It should be noted that a distinction between morality and convention is also made for positive acts. For example, Smetana et al. (1983) found that moral positive actions (e.g., comforting a young child) were ranked by subjects as better to do than conventional positive actions (e.g., wearing the school’s uniform). The VIM position makes no direct predictions about the moral/conventional distinction in positive actions nor does it make specific claims as to why we should approve of moral positive actions. It could be argued that moral positive actions are evaluated as good if they result in the termination of a situation evaluated as bad because of the activation of VIM (i.e., a distressed other). In this case, VIM would be conceptualized as a prerequisite for the development of the moral/conventional distinction in positive acts. Alternatively, it could be argued that VIM has no role in the development of approval for moral positive acts, that VIM is only involved in the development of disapproval for moral transgressions. In this case, VIM would have no role in the development of the moral/conventional distinction for positive acts. At present, these two positions have not been empirically resolved.



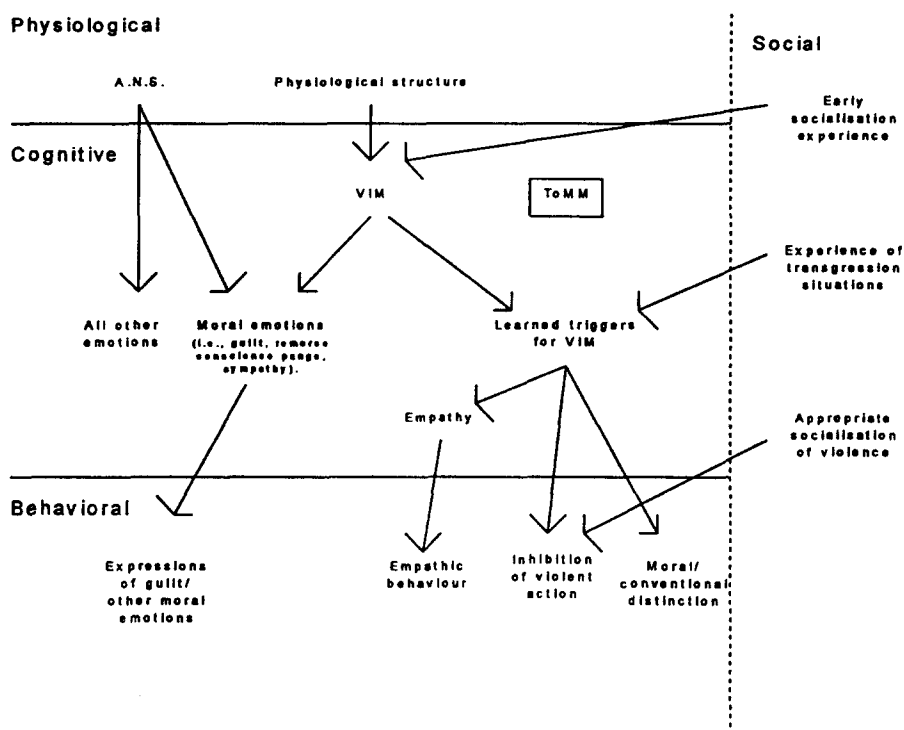


Fig. 1. A causal model of the developmental consequences of VIM.

representations of the transgression situation or representations formed through role taking of the victim's experience will, through classical conditioning, result in the expansion of the VIM trigger database.<sup>7</sup> This expansion allows the experience of empathy,<sup>8</sup> the development of additional inhibitions on violence and the expression of the moral/conventional distinction (see above).

### 1.5. A developmental account of psychopathic disorder

Fig. 2 represents the hypothesized consequences of an absence of VIM as a causal model. Elements within a causal model that are unaffected by the

<sup>7</sup> For this expansion of the trigger database to occur, VIM must actually control behaviour: the individual must withdraw from the transgression situation. If the individual continues to approach the victim (perhaps because of peer pressure to inflict greater damage), the individual will associate any representations of the victim's plight or the transgression situation with the approach response. Such an individual is more likely to be aggressive in future.

<sup>8</sup> Empathy, defined as above, is an emotional reaction to a representation of the distressed internal state of another; i.e., an emotional response to a representation of the form "she's suffering"; "what a poor little boy"; "he must be cold and hungry".

absence of another element are shown “protected” within boxes. Thus, in Fig. 2, the Theory of Mind Mechanism (Leslie, 1987, 1988) and “All other emotions” are shown as independent of the development of VIM. In line with this, Blair et al. (in press) found that psychopaths, relative to non-psychopaths, are not impoverished on “Theory of Mind” tasks while Patrick, Bradley, and Lang (1993) observed that psychopaths showed arousal to fear stimuli.

In Fig. 2, the absence of VIM is conceptualized as either a consequence of a physiological deficit or the absence of early socialization experiences. The lack of VIM will result in the absence of the moral emotions. An absence of the moral emotions is reported in the clinical description of psychopathy (Karpman, 1941; Hare, 1985a). The lack of VIM will obviously prevent the addition of learned triggers for the activation of VIM. Normally, representations held during the display of distress cues will come to activate VIM through classical conditioning. For example, representations of the victim’s internal state, formed through role taking, will come to activate VIM. Obviously, without VIM, this will not occur; there will be no pairings of representations of the victim’s internal state with the activation of VIM because there will be no activation of VIM. Psychopathy is associated with

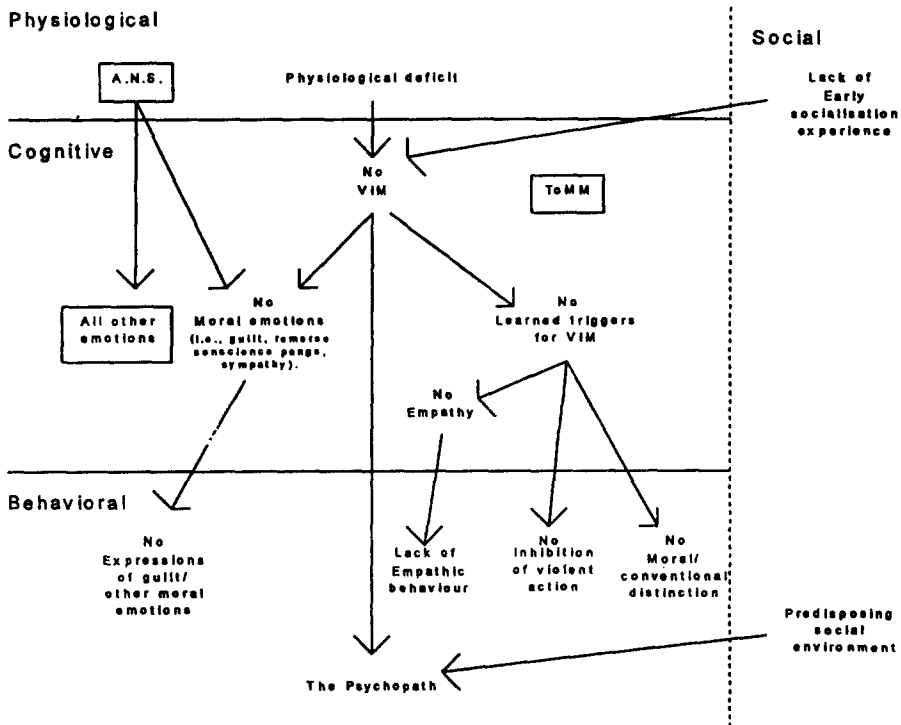


Fig. 2. A causal model of the developmental consequences of an absence of VIM.

the inability to feel empathy with the victim (Hare, 1985a). As stated above, not only does VIM interrupt violent action on line (in the context of distress cues) but it also developmentally inhibits violent action. The child with VIM will be, *ceterus paribus*, negatively reinforced following any action that results in the display of distress cues by a victim. The child without VIM would not be negatively reinforced; he would, therefore, be much more likely to show violent tendencies from a very early age. Psychopaths are associated with considerable violent tendencies from a very early age (American Psychological Association, 1987; Hare, 1985a). Thus, the core features of the behavioural description of the psychopath – the early onset of extremely aggressive behaviour that is not tempered by any sense of guilt or empathy with the victim – are all direct causal predictions of a lack of VIM.

Now it is the case that, in general, a cognitive deficit is not determinate at the behavioural level. Thus, a lack of VIM need not result in the individual becoming a psychopath. Psychopaths are defined, for clinical purposes, by the frequency of their criminal and other antisocial acts. A lack of VIM does not of itself motivate an individual to commit aggressive acts. A lack of VIM just means that one source of the interruption of violent action is lost. Thus, in Fig. 2, the development of the psychopath is represented as a consequence of the lack of VIM together with either unspecified cognitive or environmental factors. It is perhaps possible that the development of the psychopath may require deficits within executive functioning as well as within VIM; that both sources of behavioural inhibition must be impaired in order for the child to develop as a psychopath. Certainly, there have been reports of impairments in executive functioning in psychopaths in the literature (e.g., Gorenstein, 1982). It can therefore be predicted that there may exist a population who show the same callous behaviour and lack of moral emotions as the psychopath. These individuals, because of either the lack of the cognitive factors or the social environment predisposing them to crime, would not be known to the legal and psychiatric services. However, at the cognitive level, these individuals would show at least one of the same structural deficits as the psychopath: the lack of VIM.

Finally, Fig. 2 represents two unique predictions of the VIM position: individuals lacking VIM should fail the moral/conventional distinction and fail to internally generate moral justifications. Blair (1993) has suggested that the operation of VIM mediates the moral/conventional distinction (see above). If psychopaths lack VIM they should fail to demonstrate this distinction. VIM may also be a prerequisite for the internal generation of moral meta-knowledge; i.e., the individual's consciously accessible theories about why moral transgressions are bad to do. Children have been consistently found to justify their opinions about moral transgressions by references to the *victim's welfare* and by *appeals to fairness* (e.g., Arsenio & Ford, 1985; Nucci, 1981; Smetana, 1985; Song et al., 1987). Blair (1993) suggested that when the individual is asked why a moral transgression is

bad, he should be able to do some sort of causal analysis which will determine that the distress to the other is the object which activated the withdrawal response; i.e., it is the object that is bad. Blair suggested that without VIM the individual will judge acts as bad only because he has been told that they are bad (by parents/peers). Without VIM, if the subject is asked about why the act is bad, he will make reference to what he has been told.

Previous investigations of the moral reasoning of the psychopath have been exclusively conducted within the paradigmatic framework of Kohlberg (1969; Colby & Kohlberg, 1987). While it appears clear that the moral reasoning of delinquents is at a lower level than that of normal controls<sup>9</sup> (see Blasi, 1980; Trevathan & Walker, 1989) it is more debatable whether the moral reasoning of psychopaths is at a lower level than that of criminal controls. Fodor (1973) found that the moral reasoning of psychopathic youths was at a lower level than the moral reasoning of other delinquents. Campagna and Harter (1975) found the moral reasoning of sociopaths to be lower than that of non-incarcerated normals, even when controlling for mental age. Jurkovic and Prentice (1977) found that psychopaths give evidence of less mature moral reasoning than other groups of delinquent and normal youths. However, Lee, and Prentice (1988) only found that delinquents responded at a lower level than non-delinquents; the psychopaths did not reason at a lower level than the other delinquent groups.

Also, the above studies used scales of psychopathy (e.g., Quay's Behaviour Problem Checklist) that are of doubtful validity (see Hare & Cox, 1978). This methodological deficit was remedied by Trevathan and Walker (1989), who utilized Hare's Psychopathy Checklist. Trevathan and Walker (1989) observed a tendency for the psychopaths to reason at a lower level than non-psychopathic controls but this was not significant. However, both groups of delinquents scored at a significantly lower level than non-incarcerated controls. Thus, while it is clear that criminal groups may reason at a lower level than non-criminal controls, it is uncertain whether the moral reasoning of psychopaths is lower than that of other criminal groups.

No previous work has investigated whether the psychopath makes a distinction between moral and conventional rules. No previous work has looked at moral meta-knowledge. This is despite the fact that both of these are fundamental aspects of the normal development of morality. The VIM position would predict that the psychopath should fail to make a distinction in his judgements between moral and conventional transgressions and that he will not make victim-based justifications of why moral transgressions are bad to do. In summary, it was predicted that:

<sup>9</sup> Though the reasons for this are not (see Blasi, 1980).

- (1) that psychopaths will not make a distinction between moral and conventional rules;
- (2) that psychopaths will treat moral rules as if they were conventional; that is, under permission conditions, the psychopaths will say that moral as well as conventional transgressions are OK to do;
- (3) that psychopaths will be less likely to make references to the pain or discomfort of victims than the non-psychopath controls.

## 2. Method

### 2.1. Design

The experiment involved a  $2 \times 2$  repeated measures factorial design. The independent variables were the two different subject groups (psychopaths and non-psychopathic controls) and the two different domains of story (moral and conventional). The dependent variable was the responses of the subjects to the questions about the transgression situation.

### 2.2. Subjects

Ten psychopaths and 10 non-psychopaths controls took part in this study. All were obtained through contacts in Broadmoor and Ashworth Special Hospitals and had been admitted to the hospitals under the *legal* category of Psychopathic Disorder. The files of all the subjects were examined to obtain a Psychopathy Checklist (PCL) score in accordance with the guidelines of Hare (1985a). Wong (1988) has shown that PCL scores derived entirely from file data can be valid and reliable. Four items on the PCL were not scored: items 1 (“Glibness/superficial charm”), 2 (“Grandiose sense of self worth”), 4 (“Pathological lying”) and 13 (“Lack of realistic, long term goals”). These items were neglected because of the difficulty of obtaining such information from the files. However, Hare states that “as many as 5 items can be omitted without any appreciable reduction in reliability” (Hare, 1985a, p. 10). The subjects were then divided into two groups according to their score on the PCL: one high for psychopathy (the psychopaths), one low for psychopathy (the nonpsychopaths). All of the subjects were male and white. All of the subjects had committed crimes of violence. Indeed, all of the subjects apart from one of the high PCL scorers (i.e., one of the psychopaths) had killed. Full subject characteristics are shown in Table 1.

Two-way ANOVAs (comparing the two subject groups) were undertaken for each of the subject criteria. These revealed no significant differences in age between the two groups ( $F(1, 18) = 1.10$ ; n.s.). The two tests of intelligence revealed no significant differences between the groups either

Table 1  
Means for each of the subject criteria (standard deviations in parentheses)

Group	<i>N</i>	Age	IQ (WAIS)	Raven's matrices score	Hare's psychopathy score <sup>a</sup>
Psychopaths	10	33.3 (7.7)	91.6 (17.2)	6.4 (2.1)	31.6 (2.1)
Non-psychopaths	10	37.5 (9.43)	92.7 (16.0)	6.3 (3.3)	16.1 (4.6)

<sup>a</sup>To gain a score out of 40 when only 16 items were being measured the score from the 16 items (out of 32) was multiplied by 40/32.

when using the WAIS<sup>10</sup> ( $F(1, 12) = 0.08$ ; n.s.) or Raven's Advanced matrices ( $F(1, 18) = 0.01$ ; n.s.).

### 2.3. Materials

The stories used to measure the moral/conventional distinction were all taken from the literature. The four moral stories involved a child hitting another child, a child pulling the hair of another child and the victim cries, a child smashing a piano and a child breaking the swing in the playground. The four conventional stories involved a boy child wearing a skirt, two children talking in class, a child walking out of the classroom without permission and a child who stops paying attention to the lesson and turns his back on the teacher. Subject's responses to questions were recorded on standard scoring sheets.

### 2.4. Procedure

Subjects were tested in one of the interview rooms attached to the ward on which the subject was housed. Before the study commenced the subjects were introduced to the experimenter and informed about what they were to do. Subject consent forms were taken.

Before any of the transgressions scenes were read out to the subjects, they were informed that all of the scenes would occur within a school environment. It was decided to place the transgressions scenes within a school environment, as opposed to a ward or other adult environment, because piloting had shown that teachers were regarded by the subjects as legitimate authority figures for children. Some subjects did not regard nurses as legitimate authority figures for other adults.

Each of the transgression scenes was read out to the subject one at a time.

<sup>10</sup> WAIS scores were obtained from the patients' files and not by the present experimenter. WAIS scores were not available for three of the psychopaths and three of the non-psychopaths. Because of the incompleteness of these data, all of the subjects were submitted Raven's Advanced matrices.

The order of presentation of the transgression scenes was randomized across subjects. After the transgression scene had been presented, the subject was asked four questions:

- (1) “Was it OK for X to do Y?” (Examining the subject’s judgement of the *permissibility* of the act.)
- (2) “Was it bad for X to do [the transgression]?” and then “On a scale of one to ten, how bad was it for X to do [the transgression]?” (Examining the subject’s judgement of the *seriousness* of the act.)
- (3) “Why was it bad for X to do [the transgression]?” (Examining the subject’s *justification categories* for the act.)

The subject was then told:

“Now what if the teacher said before the lesson, before X did [the transgression], that “At this school anybody can Y if they want to. Anybody can Y.”

The subject was then asked a final question:

- (4) “Would it be OK for X to do Y if the teacher says X can?” (Examining the rule’s *authority jurisdiction*.)

All responses were recorded by hand on a standard scoring sheet.

### 2.5. Scoring procedure

The scoring procedure followed that commonly used in the literature (e.g., Smetana, 1981; Smetana & Braeges, 1990). The answers to all questions, except three, were scored categorically. *Yes* responses were assigned a score of 0, and *no (not OK)* responses a score of 1. Subjects could thus achieve a cumulative score of between 0 and 4 for each of the domains for each of the questions. Question 3 was scored according to the value (between 1 and 10) the subject had given that transgression. The justifications of the subjects were scored according to categories similar to those used in previous research (e.g., Smetana, 1985). The justification categories are shown in Table 2. Two coders scored all justifications, and inter-rater reliability was high (91%).

## 3. Results

### 3.1. Criterion judgements

Table 3 presents the means and standard deviations of moral and conventional judgements for each of the criterion judgements for both

Table 2  
A description of the justification categories

	Description
Other's welfare	Any reference to the welfare of the victim (e.g., "it will hurt him")
Normative references	Any reference, even implicit (e.g., "It's not acceptable to do that"), to rules
Disorder statements	Any reference to the disruption caused by the transgression (e.g., "It will distract the class").
Lack of change	Any reference to the long-term implications of the transgression (e.g., "If he gets away with it now he'll always do it")
Rudeness	Any reference to the rudeness of the transgression (e.g., "It's bad manners")
Other	Any other response

subject groups. Three 2 (Domain)  $\times$  2 (Group) ANOVAs were performed on the subject's responses for each of the three criterion judgements. These three ANOVAs revealed main effects of domain for all three judgements: *permissibility*,  $F(1, 38) = 9.51$ ,  $p = .05$ ; *seriousness*,  $F(1, 38) = 8.83$ ,  $p < .01$ , and; *authority jurisdiction* (modifiability),  $F(1, 38) = 30.07$ ,  $p < .001$ ). Moral transgressions were judged significantly less *permissible*, more *serious* and less *authority dependent* than conventional transgressions.

Significant group differences were only shown in the results of the ANOVA on the *authority jurisdiction* (modifiability) criterion judgement. This ANOVA showed a main effect of group  $F(1, 38) = 5.53$ ,  $p < .05$  and a significant Domain  $\times$  Group interaction  $F(1, 38) = 9.97$ ,  $p < .01$ . However, a simple effects analysis using two-way ANOVAs to examine the moral/conventional distinction of the two groups independently revealed different patterns of responding for the two groups. The non-psychopaths made a significant moral/conventional distinction on all three criterion judgements (*permissibility*,  $F(1, 18) = 11.76$ ,  $p < .05$ ; *seriousness*,  $F(1, 18) = 6.49$ ,  $p < .05$ ; *authority jurisdiction*,  $F(1, 18) = 53.47$ ,  $p < .001$ ). However, the psychopaths did not make a significant moral/conventional distinction on any of

Table 3  
The means and standard deviations of moral (M) and conventional (C) judgements for each of the criterion judgements for each of the subject groups

	Criterion judgements					
	Permissibility		Seriousness		Modifiability	
	M	C	M	C	M	C
Psychopaths	0.98 (0.08)	0.93 (0.17)	8.28 (1.66)	6.42 (3.04)	0.95 (0.16)	0.80 (0.33)
Non-psychopaths	1.00 (0.00)	0.75 (0.26)	8.04 (2.11)	4.72 (3.29)	1.00 (0.00)	0.38 (0.34)



the criterion judgements (*permissibility*,  $F(1, 18) = 0.56$ , n.s.; *seriousness*,  $F(1, 18) = 2.58$ , n.s.; *authority jurisdiction*,  $F(1, 18) = 2.08$ , n.s.).

It seems therefore that while the responding of the psychopaths and non-psychopaths was only significantly different for the *authority jurisdiction* (modifiability) criterion judgement, the two groups can be differentiated (see Fig. 3). As predicted (prediction 1; see the simple effects analysis), the psychopaths did not show a moral/conventional distinction on any of the criterion judgements. However, in contrast to prediction 2, the psychopaths did not judge moral transgressions as conventional on the *authority jurisdiction* criterion judgement; i.e., *authority dependent*. Indeed, psychopaths did the opposite, judging conventional transgressions as moral on this criterion judgement; i.e., not *authority independent*.

Analysis of individual subject data reveals the difference in the pattern of responding of the two subject groups even more clearly. Table 4 reveals the differences between individuals in the two groups in their pattern of responding on the *authority jurisdiction* question. Table 4 reveals how many of the subjects in each of the two groups judged how many of the conventional transgressions to be *authority independent*. All of the subjects (other than one psychopath) judged that all of the moral transgressions were *authority independent*.

Table 4 clearly shows the difference between the two groups. Six psychopaths (as opposed to 1 non-psychopath) subjects did not distinguish between moral and conventional transgressions on the *authority jurisdiction* question at all; all of these subjects thought that the transgression was not OK even if the teacher said that it was. In addition, a two (group)-way ANOVA, performed on the “quality of the moral/conventional distinction” score, revealed that the psychopaths were judging significantly more of the conventional transgressions as moral ( $F(1, 18) = 8.10$ ;  $p < .05$ ).

Only 2 psychopaths as opposed to 8 controls made a clear moral/conventional transgression (i.e., considered that more than two of the conventional transgressions were OK to do under the permission conditions). Even then, 1 of these 2 psychopaths actually viewed all transgressions, apart from the 2 physical violence transgressions, as permissible under

Table 4

The number of psychopaths and non-psychopaths in each of the “quality of the moral/conventional distinction” categories

Group	Quality of the moral/conventional distinction		
	No distinction	Mild distinction	Clear distinction
Psychopaths	6	2	2
Non-psychopaths	1	1	8

No distinction = no transgressions were judged *authority independent*; mild distinction = 1 transgression was judged *authority independent*; clear distinction = 2 or more transgressions were judged *authority dependent*.

permission conditions; this subject, unlike all the other 19 studied, considered that property damage, under permission conditions, was permissible.

### 3.2. Justification categories

Table 5 and Fig. 4 depict subjects' proportionate use of justifications for (combined) moral and conventional items. It seems that, regardless of group, *victim's welfare* reasoning was more commonly used to justify moral items while *disorder* statements and *rudeness* were more commonly used to justify conventional items. Indeed, a 2 (Group)  $\times$  2 (Domain) ANOVA, performed on the *victim's welfare* justification category, revealed a main effect for domain. This ANOVA also revealed a main effect of group ( $F(1, 38) = 6.76$ ;  $p < .05$ ). As predicted (prediction 3), psychopaths are significantly less likely to justify items by references to the *victim's welfare*. There was also a significant Group  $\times$  Domain interaction ( $F(1, 36) = 6.76$ ;  $p < .05$ ). This was a product of the fact that this difference between the groups was only present for the moral items; no conventional items were justified through references to *victim's welfare*.

Examination of *victim's welfare* justification by the individual subject revealed that 5 of the psychopaths and 9 of the non-psychopaths used this form of justification at least once. Of the 5 psychopaths who used this justification, 2 were the 2 subjects who showed a clear moral/conventional distinction (see Table 4) and 1 was 1 of the subjects who made a mild moral/conventional distinction. The 1 non-psychopath who did not use *other's welfare* justifications did, however, make a clear moral/conventional distinction.

### 3.3. Individual item PCL scores and the moral/conventional distinction

It was decided to investigate the relationship between the subject's score on each of the items of the PCL and his tendencies to judge conventional transgressions as moral and to make references to *victim's welfare* in his

Table 5

The proportionate use by the psychopath and non-psychopath subjects of the justification categories

	Group			
	Psychopath		Non-psychopath	
	M	C	M	C
Other's welfare	17.5	0.00	52.50	0.00
Normative references	52.50	42.50	35.00	25.00
Disorder statements	0.05	22.50	2.50	32.50
Lack of change	12.50	7.50	2.50	12.50
Rudeness	0.00	17.50	2.50	17.50
Other	12.5	10.00	5.00	12.5

M, moral; C, conventional.

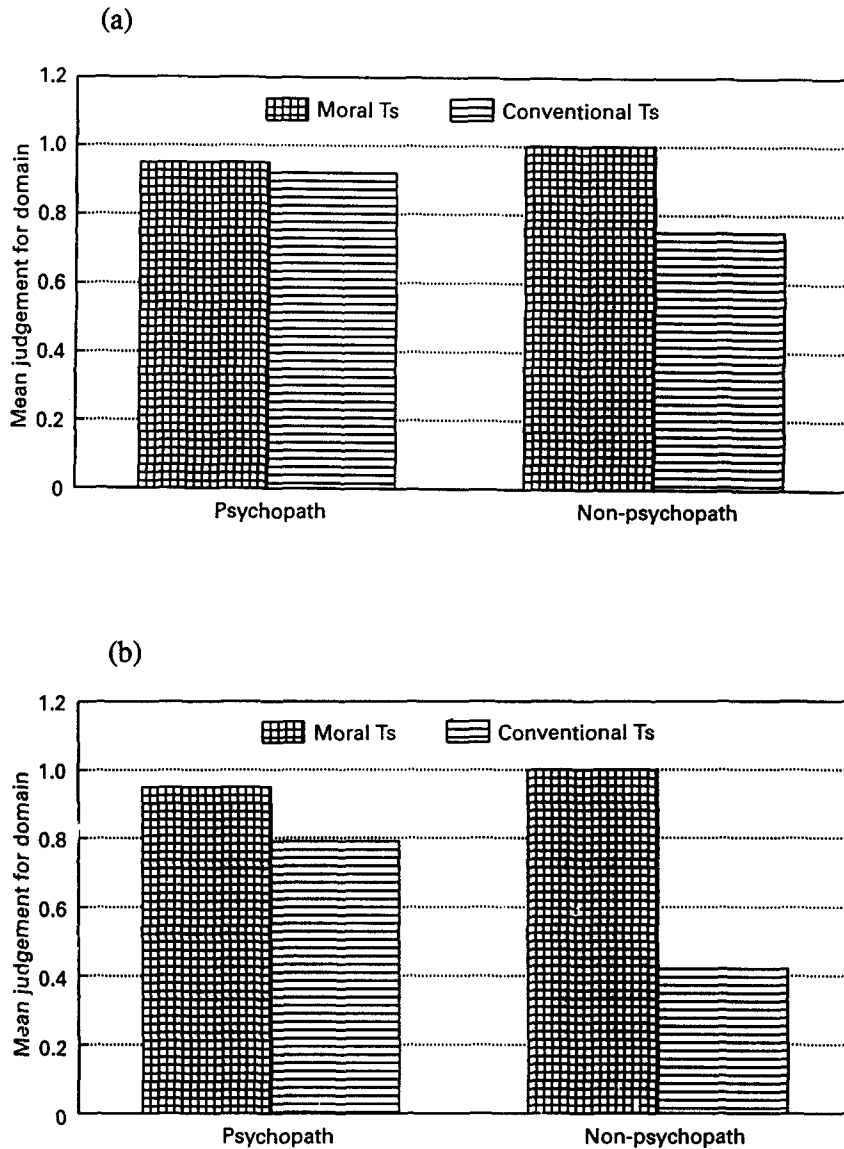


Fig. 3. Results of the psychopath and non-psychopath subjects on the *permissibility* (a) and *modifiability* (b) questions.

justifications. Table 6 shows those PCL items which significantly correlated with the tendency to judge conventional transgressions as moral and the tendency to make *victim's welfare* justifications. Table 7 shows the inter-correlations between total PCL score, tendency to judge conventional transgressions as moral and tendency to make *victim's welfare* justifications.

These two tables show three significant correlations of individual PCL

Table 6

Individual items on the PCL which significantly correlated with tendency to judge conventional transgressions as moral and tendency to make *victim's welfare* justifications

PCL item	Tendency to judge conventional transgressions as moral	Tendency to make <i>victim's welfare</i> justifications
Lack of remorse or guilt	0.74**	-0.48
Callous/lack of empathy	0.41	-0.55
Early behavioural problems	n.s.	-0.60*
Juvenile delinquency	n.s.	-0.57
Criminal versatility	0.60	-0.49

\* =  $p < .01$ ; \*\* =  $p < .001$ .

items with tendency to judge conventional transgressions as moral (“lack of remorse or guilt”, “callous/lack of empathy” and “criminal versatility”). Total PCL score also correlated significantly with this tendency. Five individual test items and the total PCL score correlated significantly with the tendency to make *victim's welfare* justifications. In addition, tendency to make *victim's welfare* justifications correlates significantly with tendency to judge conventional transgressions as moral.

#### 4. Discussion

The present study examined the form of the moral/conventional distinction made by psychopaths and non-psychopaths and the categories used by these subjects when they justify their judgements. This study revealed: first, and in line with predictions, that while the non-psychopaths made the moral/conventional distinction, the psychopaths did not; secondly, and in contrast with predictions, that psychopaths treated conventional transgressions like moral transgressions rather than treating moral transgressions like conventional transgressions; and thirdly, and in line with predictions, that psychopaths were much less likely to justify their items with reference to *victim's welfare*.

It should be noted that while these results were broadly in line with

Table 7

Intercorrelations of total PCL score, tendency to judge conventional transgressions as moral and tendency to make *victim's welfare* justifications

	Tendency to judge conventional transgressions as moral	Tendency to make <i>victim's welfare</i> justifications
Total PCL score	0.45 <sup>a</sup>	-0.47
Tendency to make <i>victim's welfare</i> justifications	-0.54	

<sup>a</sup>This correlation is not significant.

predictions, they would not be expected from an analysis of the literature. As reported above, the observation in individuals of a moral/conventional distinction is a particularly robust phenomenon; it is found across ages (e.g., Nucci, 1981) and across cultures (e.g., Song et al., 1987). Indeed, Blair (submitted) found that children with autism made the distinction. In fact, all other populations examined have been found to make this distinction.

It should also be noted that these findings cannot be explained as a result of poor parenting strategies (this includes neglect or child abuse). While clinicians have reported that many psychopaths have been abused as children, not all have, nor have the non-psychopath population used here been free of this abuse. More importantly, Smetana et al. (1984), examining the moral/conventional distinction in abused children, found that these children did make the distinction.

Indeed, these findings cannot easily be accommodated within the existing framework of accounts of the moral/conventional distinction (e.g., Smetana, 1983; Turiel, 1977, 1983; Turiel et al., 1987; Turiel & Smetana, 1984). These authors have suggested that the moral/conventional distinction is a result of the formation of two, independent conceptual domains (see Turiel & Davidson, 1986). These authors have proposed that the child *constructs* these domains from the qualitatively different social interactional consequences of moral and conventional transgressions. Such a framework would have to account for the present findings as indicating that the psychopath has not *constructed* the moral domain either because of a failure in the construction process or because of a lack of experience of the social interactional consequences of moral and conventional transgressions. Taking the second possibility first: given the activities of the psychopath it is highly unlikely that they have not been exposed to the social interactional consequences of moral and conventional transgressions. It would therefore probably be easier to explain the present findings in terms of a deficit within the *construction* process in psychopaths. The only detailed description of the *construction* process is that provided by Turiel (1983). He states that two forms of the manipulation of gathered data result in the *construction* of “judgements of moral necessity”: manipulations of past experience and counter-factual reasoning. In summary, both of these manipulations result in judgements of moral necessity if the child has *constructed* a connection between his own personal experience of pain and the observed experience of the victim. It would thus be predicted that an individual who has never experienced pain would not make the moral/conventional distinction. However, there is no reason to believe the psychopaths do not experience pain. Nor is there any empirical reason to believe that psychopaths are any less likely to form *connections* between concepts than the normal population.

Two potential alternative ways of generating “judgements of moral necessity” might be by either role taking or empathizing with the victim. Representations of another’s plight, formed through role taking, have

previously been suggested to motivate the observer to alleviate that plight (Gough, 1948). In addition, emphatic responses are assumed to motivate prosocial behaviour (Hoffman, 1987) and inhibit violent action (Feshbach, 1983; Gibbs, 1987; Perry & Perry, 1974; Samenov, 1984). As stated above, role taking is defined as the “imaginative transposing of oneself into the thinking and acting of another” (Feshbach, 1978). As Batson states: “Perspective taking is the psychological variable most often assumed to be the antecedent of specifically empathic reactions to another’s distress” (Batson et al., 1987, p.172). Thus, empathizing involves role taking. To role take an individual must be able to “mentalize” (see Leslie, 1987, 1988) where “mentalizing” involves the representation of mental states of others. If, when the individual is role taking, he is forming a representation of the mental state of the other he is, by definition, “mentalizing”. Children with autism have been demonstrated to be incapable of “mentalizing” (e.g., Baron-Cohen, Leslie & Frith, 1985; Leslie & Frith, 1988). Therefore, according to the above definitions, these children cannot either role take or empathize. However, children with autism do make the moral/conventional distinction (Blair, submitted). Therefore, neither role taking nor empathy can be prerequisites for successful performance on the moral/conventional distinction task.

Turning to the position detailed in the Introduction, there is no reason to believe that children with autism lack VIM and, therefore, their demonstration of the moral/conventional distinction is not surprising. While children with autism may not be able to represent a mental state of another’s distress, this distress, as a visual or aural cue, will activate their VIM. Developmentally, representations of transgressions which commonly cause distress in victims (moral transgressions) will become triggers for VIM due to their pairing with VIM activation as a consequence of the observation of distress cues (see above). Thus, in children with autism, as in normally developing children, representations of moral transgressions will activate VIM.

As regards the three predictions made in the Introduction for psychopaths, it can be seen that two out of the three were confirmed. If psychopaths lack VIM they should fail to distinguish in their judgments between moral and conventional transgressions. Most of the psychopaths in the present study did not distinguish between these two transgression situations in their judgements. If psychopaths lack VIM they should show impoverished victim-based moral meta-knowledge. The psychopaths in the present study demonstrated significantly less reference to victim-based moral meta-knowledge than the non-psychopaths. In addition, as regards the VIM position, the findings displayed in Tables 6 and 7 should be considered. Total PCL score correlated with both tendency to judge conventional transgressions as moral and tendency to make *victim’s welfare* justifications. There is an association between degree of psychopathy and both failure to make the moral/conventional distinction and failure to make *victim’s*

*welfare justifications*. More important, however, are the significant correlations between individual PCL items and both moral/conventional scores. All the individual PCL items which correlate significantly with either of the measures of failure on the moral/conventional distinction task would be predicted primary consequences of a lack of VIM. In particular, in this respect, is the very significant correlation between lack of remorse or guilt and tendency to judge conventional items as moral. The causal model presented in Fig. 2 specifically predicts the absence of moral emotions in the psychopath.

The third prediction, that the psychopaths should treat moral transgressions as conventional, was disconfirmed. The psychopaths treated conventional transgressions as if they were moral. In the Introduction, it was suggested that when an individual learns of a moral transgression, VIM is activated by the presence of a victim. It was suggested that VIM activation results in a withdrawal response resulting in arousal. This arousal, associated with the withdrawal response, is experienced as aversive. The act which elicited this arousal is associated with the aversiveness; it is considered undesirable. Even if the transgression situation is changed, i.e., there is no rule prohibiting the moral transgression, VIM will still be activated by the presence of the victim, and so the act will still be considered not OK to do. In contrast, when an individual processes a conventional transgression VIM will not be activated and there will be no aversive arousal. The individual will therefore consider that any conventional transgression that is not prohibited by a rule is OK to do.

This account implies: first, that the psychopath should judge moral and conventional transgressions similarly; and, secondly, that the psychopath should process all transgressions as conventional (*authority dependent*) because, given the lack of VIM, no aversive arousal should be generated. As stated above, the first prediction was confirmed; psychopaths did judge moral and conventional transgressions similarly. However, psychopaths judged all transgressions as moral, not conventional. However, this second finding is not incompatible with the VIM position. Indeed, perhaps this finding is not surprising. These subjects were all incarcerated and presumably motivated to be released. All wished to demonstrate that the treatments they were receiving were effective. They therefore would be motivated to show how they had learned the rules of society (notice the predominance of normative statement justifications from both groups; 45% of the psychopaths and 34% of the non-psychopaths justifications were of this form). The psychopaths manifest this desire on the *authority jurisdiction* criterion judgement, by suggesting that all transgressions are *authority independent*. I suggest that this is because the psychopaths lack VIM and thus are unable to identify the distinguishing features differentiating moral and conventional transgressions. This inability, coupled with a desire to demonstrate adherence to societal rules, results in their judgement of all the transgressions as *authority independent*. The non-psychopaths, in contrast, though presumably

equally motivated to be released, are incapable of ignoring the distinguishing features of moral and conventional transgressions because of the operation of VIM, and thus answer the *authority jurisdiction* question appropriately.

Examining the justifications produced by subjects when they were explaining why they thought the transgressions were not OK to do (see Table 5 and Fig. 3), it can be seen that psychopaths and non-psychopaths used similar justifications if the transgression was conventional but not if the transgression was moral. If the transgression was moral, nonpsychopaths used predominantly *other's welfare* justifications ("it hurts") while psychopaths used predominantly *normative* justifications (i.e., "its wrong" or "its not socially acceptable"). This result was as predicted. Without VIM, the individual may not associate the pain of the other with the transgression and thus will not justify the act's wrongness by referring to the welfare of others.

It could be suggested, from Table 5 and Fig. 4, that the psychopaths, though they failed to make a moral/conventional distinction in their criterion judgements, are making a moral/conventional distinction in their justifications. They certainly do show a tendency to give different justifications for moral and conventional transgressions. However, this cannot be taken as evidence against the position proposed here. In the Introduction, the moral/conventional transgressions was defined as the distinction in an individual's *judgements* between moral and conventional transgressions. It was suggested that the activation of VIM by representations of moral, but

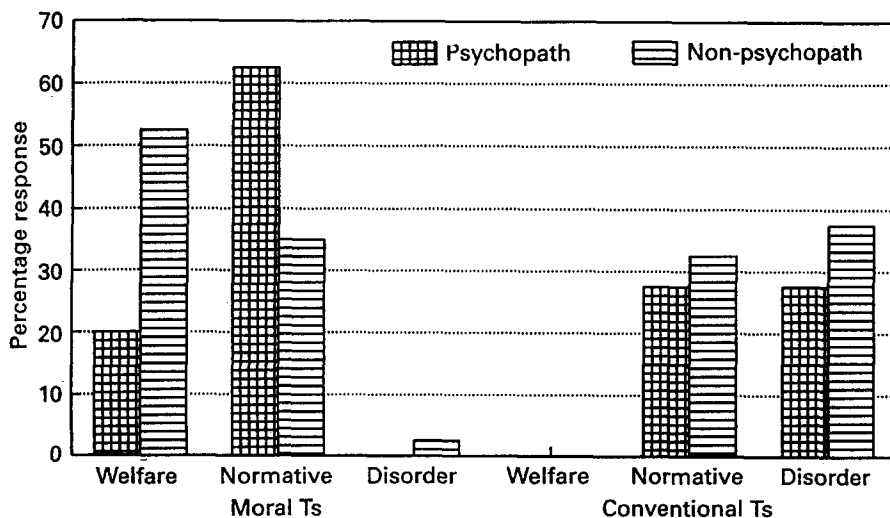


Fig. 4. Proportionate use of justification categories by psychopath and non-psychopaths for moral and conventional transgressions.



not conventional, transgressions was responsible for this distinction. It was also suggested that VIM was a prerequisite for the internal generation of justifications centred on the plight of the victim. However, it was not suggested that VIM had a role in the generation of any other form of justification category. Indeed, there is no reason to believe that it should have. What justification category an individual gives for a specific transgression will be a function of the salient aspects of that transgression. There is no reason to believe that the salient features of a moral transgression should be identical to those of a conventional transgression (outside of the fact that moral transgressions necessarily result in victims). Indeed, there is reason to believe that they should not be. Moral transgressions (e.g., one individual hitting another) need not result in classroom disorder. The conventional transgressions used in the present study (e.g., talking in class) necessitate classroom disorder. Thus, the fact that the psychopaths give different, non-victim based justifications for moral and conventional transgression cannot be used against the position being advocated here.

In conclusion, this study confirmed two predictions of the causal model presented as Fig. 1. Psychopaths are significantly more likely to fail to make the moral/conventional distinction and they are significantly less likely to make reference to the welfare of others. While this study has not proven that psychopaths lack VIM, it has provided evidence that is in line with the position.

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