

## Psychopathy, Moral Understanding and Criminal Responsibility

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### Abstract

In Scotland and England individuals cannot be relieved from criminal responsibility on the basis that they have psychopathic personality disorder. The insanity defence in England is due to be reformed and, if the Law Commission's proposals are implemented, it is likely that psychopaths will continue to be excluded from that defence. However, some philosophers and neuroscientists have argued that psychopaths should be entitled to a defence, as psychopathy can undermine a person's ability to understand the wrongfulness of criminal conduct. This article will focus on empirical evidence, including findings from neuroscience, which lends some support to this argument. It will argue that brain scans, autonomic testing, interviews and cognitive tests suggest that psychopaths' moral reasoning is impaired. Such evidence should be placed before the jury so that the jury can decide on a case-by-case basis whether individuals with psychopathy should be relieved from criminal responsibility.

### 1. INTRODUCTION

Although psychopaths make up less than 1% of the population, researchers in the United States have estimated that psychopaths may be responsible for up to 30% of violent crimes committed in the United States. [\[1\]](#)

A number of theorists have argued that psychopaths should be excused from criminal responsibility on the basis that they lack the ability to empathise - a capacity which these theorists regard as important to genuine moral understanding. [\[2\]](#) This argument is of relevance to both English and Scottish law. In these jurisdictions, psychopathy cannot provide a basis for completely relieving an individual from criminal responsibility. It seems likely that this will continue to be the case if the Law Commission's proposals to reform the insanity defence in English law are implemented. [\[3\]](#)

Writers who favour the psychopathy exclusion have doubted whether psychopaths genuinely lack an understanding of the moral wrongfulness of their criminal conduct. [\[4\]](#) It has also been argued that it is difficult (or impossible) to distinguish a psychopath from a typical criminal. [\[5\]](#) This article will focus on the empirical evidence suggesting that some psychopaths do, in fact, appear to have deficits that distinguish them from responsible offenders. These deficits appear to undermine psychopaths' ability to understand morality. This article discusses traditional forms of assessing mental incapacities, such as interviews and cognitive testing, as well as considering autonomic responses and neuroscientific evidence. It argues that brain scans and autonomic testing can never supplant other forms of assessment, such as interviews and cognitive testing. However, physiological and neural data can play an important role in conjunction with data from other sources. It is submitted that that these techniques are sufficiently promising to warrant

placing the evidence of such tests before a jury and allowing the jury to decide whether, in any particular case, the mental non-responsibility of a person with psychopathy has been established.

## 2. PSYCHOPATHY

The standard tool for diagnosing psychopathy is the 'Psychopathy Checklist - Revised' (PCL-R), which is a list of 20 criteria. [6] These criteria can be divided into two subsets or 'factors'. [7] Factor one items describe an individual's emotions and way of relating to other people, such as lack of empathy, lack of guilt and shallow affect. Factor two items concern lifestyle issues, such as early behavioural problems and irresponsibility. The presence of each item on the PCL-R is scored on a scale from 0-2 (0 means the trait is absent, 1 means it is possibly or partially present and 2 means it is definitely present). The maximum possible total score for all 20 items is 40. The PCL-R manual recommends that a diagnosis of psychopathy can be given to individuals with scores of 30 or above. [8]

Writers who have argued that psychopaths should be relieved from criminal responsibility typically focus on the psychopath's incapacity to empathise. [9] For instance, Hare refers to the psychopath's,

"profound lack of empathy (an inability to construct a mental and emotional 'facsimile' of another person). They seem unable to 'get into the skin' or to 'walk in the shoes' of others, except in a purely intellectual sense.... In some respects they are like the emotionless androids depicted in science fiction, unable to imagine what real humans experience." [10]

The term "empathy" has been used in different ways by different writers. [11] In this article, the phrase "the capacity for empathy" will refer to the emotional and imaginative ability to feel what another person's experience is like for them (in that sense, to "walk in their shoes"), and the ability to care emotionally about another person. [12] A simple form of empathy can be found in very young normally developing children, who can experience distress in response to the distress of others. A more sophisticated form of empathy involves the recognition that other people are separate individuals from oneself, with their own purposes and their own lives to live. John Deigh argues that this kind of sophisticated empathy is necessary for genuine moral understanding and that it emerges gradually "from early experiences of shared feeling... [Empathy takes] increasingly mature forms as one's understanding of what it is to be a human being and to live a human life deepens." [13]

It seems plausible that a capacity for empathy provides the basis for appreciating central cases of moral and criminal wrongs - those which involve harm to others. This article will be based on the assumption (which has been defended elsewhere) that someone who is unable to empathise with the suffering of another person and is incapable of feeling concern for the welfare of another person cannot truly grasp what is wrong about harming other people. [14] An inability to empathise can render a person unable to appreciate the point of laws whose purpose is to prevent harm and promote welfare, or the wrongfulness of violating such laws. If it can be established that a person with severe psychopathy is unable to empathise then that person should not be held criminally responsible. This article will focus on whether there is sufficient evidence of the psychopath's lack of empathy (and resultant lack of moral understanding) to warrant putting such evidence before a jury.

It should also be noted that some of the findings discussed in this article appear to provide direct evidence that psychopaths, in fact, do not understand moral concepts (whether or not the cause of this lack of understanding is an inability to empathise). Therefore this evidence could still be accepted by those who reject the empathy-basis for excusing psychopaths.

It might be objected that, even if psychopaths are genuinely unable to understand moral concepts, this should not provide a basis for excusing them. If psychopaths cannot grasp the moral reasons for obeying the law, a utilitarian might argue that the law should simply appeal to psychopaths' self-interest and punish them severely in order to deter them from re-offending. [15] Firstly, in response, there is evidence to suggest that, due to psychopaths' brain abnormalities, they fail to be deterred by severe punishments. [16] Secondly, the Scottish and English Law Commissions both seem to assume that receptivity to moral as well as self-interested reasons is necessary for criminal responsibility. If this principle applies to other mental disorders, then it would be inconsistent to treat psychopathy differently. A plausible rationale for the principle that receptivity to moral reasons is necessary for criminal responsibility is the idea that an important purpose of punishment is to communicate to offenders that their criminal actions are worthy of moral condemnation. [17] However, it is beyond the scope of this paper to defend this communication theory.

### 3. THE LEGAL POSITION

In 2010, a new defence was created in Scotland entitled "non-responsibility by reason of mental disorder" (henceforth the "mental disorder defence"). [18] This new defence replaced the common law defence of insanity. The new defence explicitly excludes any "personality disorder which is characterised solely or principally by abnormally aggressive or seriously irresponsible conduct." [19] The explanatory notes to the statute state that this phrase refers to psychopathy.

In England and Wales, in order to successfully plead the insanity defence, the defendant must prove on the balance of probabilities that he/she was suffering from a defect of reason arising from a disease of the mind so that either the defendant did not know the nature and quality of the act or did not know that it was wrong. [20] The Law Commission have recommended that the insanity defence in that jurisdiction should be replaced with a new "recognised medical condition defence". [21] The Law Commission considered that "antisocial personality disorder" (a condition that is similar to psychopathy) should not be included within the defence for "policy reasons". [22]

Both the English and Scottish Law Commissions raised two related concerns about psychopathy. Firstly, they doubted whether psychopathy involves any of the incapacities that are specified by the relevant defences. In Scotland, the defence of mental disorder covers the following incapacities: "an inability to appreciate the nature or wrongfulness of [criminal] conduct". [23] In England, the Law Commission have proposed that the following three incapacities should be covered by the recognised medical condition defence: "(i) [the capacity] rationally to form a judgment about the relevant conduct or circumstances; (ii) [the capacity] to understand the wrongfulness of what he or she is charged with having done; or (iii) [the capacity] to control his or her physical acts in relation to the relevant conduct or circumstances as a result of a qualifying recognised medical condition." [24] According to both Scots law and the English Law Commission's proposals, the concept of being unable to appreciate/understand the "wrongfulness" of criminal conduct is wider than

knowledge of "legal wrongfulness" and includes an inability to appreciate "moral wrongfulness". [25]

Contrary to the English and Scottish Law Commissions' claims, there is evidence to suggest that individuals with severe psychopathy appear to lack one of the relevant capacities - the ability to appreciate/understand the moral wrongfulness of criminal conduct. The remainder of this article will discuss this evidence.

The second concern is that it is difficult or impossible to distinguish the psychopath from a typical offender. [26] For instance, any criminal who has repeatedly committed violent or sexual offences has, by definition, *failed to show empathy* for his/her victims. This fact, by itself clearly provides no basis for a defence. In contrast, as explained above, psychopathy appears to involve an *inability to empathise*. This incapacity arguably should provide the basis for a defence. However, opponents of such a defence might worry that the incapacity to empathise is indistinguishable from a failure to exercise one's capacity for empathy. If it were impossible to tell the difference between psychopaths and typical criminals, then people who do not deserve a defence might be acquitted. However, the subsequent sections of this article will highlight ways of identifying differences between psychopaths and non-psychopaths. Furthermore, the risk of wrongful acquittals should not be exaggerated. Cases where the insanity defence has been successfully pleaded are "exceedingly rare". [27] In addition, juries may be particularly resistant to acquitting individuals who claim to be psychopathic. Evidence suggests that lay people assume psychopaths do in fact possess the capacities necessary for responsibility, such as the capacity to make moral judgements. [28] This casts doubt on the idea that jurors would be predisposed to excuse psychopaths without convincing evidence that this was warranted.

#### 4. PSYCHIATRIC INTERVIEWS

One method of trying to assess an individual's understanding of the moral wrongness of criminal conduct is to directly question her about such matters, e.g. to ask her what, in her view, are the most serious moral wrongs a person could commit. In response to such questions, some psychopaths have been observed to list wrongs which are both surprisingly trivial and specific, e.g. 'pulling gates off posts' and 'shooting at beasts with air rifles'. [29] One explanation for such responses is that psychopaths do not really understand what makes an action morally wrong. They may simply learn through personal experience that certain actions are labelled 'wrong' by other people. When describing instances of 'serious wrongdoing', these psychopaths may simply be listing actions for which they have been severely reprimanded in the past (or for which they have observed others being reprimanded).

It might be objected that another explanation for these unusual responses is that these interviewees have a completely different scheme of values from mainstream society. [30] Indeed, some of the scepticism about psychopathy as a mental illness may derive from the idea that it is impossible for psychiatrists to tell whether psychopaths are incapable of understanding values, or merely have unusual values. Two points can be made in response to this objection. Firstly, it should be stressed that the risk that psychiatrists will misinterpret an individual's values as symptoms of mental illness is not unique to psychopathy. For example, much has been written about the difficulties in distinguishing between schizophrenic delusions and spiritual/religious beliefs about the supernatural; there are also complex problems concerning the relationship

between obsessive-compulsive disorder and religious purification rituals.[31] With some notable exceptions, [32] most theorists do not think that these difficulties are insurmountable. In the context of psychopathy, as with other mental illnesses, psychiatrists need to bear in mind that there are complex issues surrounding values and mental illness when carrying out diagnostic interviews.

Secondly, it has become common practice for interviewers to ask psychopaths to *justify* their answers about wrongdoing. An inability to give any intelligible justification would make the 'different values' hypothesis seem less plausible. Specific tests have also been devised to further probe patients' understanding of values (discussed below).

Some psychopaths seem able to parrot conventional moral judgements, but do not understand them. The interviewee may reveal such a lack of understanding through being completely unable to 'intelligently discuss...[or] criticise the rules he has picked up'. [33] Duff draws an analogy between the psychopath's use of moral concepts and the use of aesthetic concepts by someone with no aesthetic sensitivity. While both individuals may be capable of repeating some of the principles they have memorised, they would only be able to apply them in a rigid, formulaic way. They would not, for example, have the genuine understanding and the creativity needed to discuss whether these principles could be extended to cover new cases that they have not come across before.[34]

Another indicator of a failure to appreciate the moral wrongness of criminal conduct is a failure to recognise when a statement about morality is self-contradictory. (An inability to recognise contradictions when it comes to concepts connected with personal values and relationships is also relevant, if as claimed above an inability to empathise is necessary in order to understand the wrongfulness of criminal conduct.) Hervey Cleckley describes how one of his psychopathic patients had a marked tendency to make contradictory statements about values and people the patient claimed to care deeply about. This patient would just shrug off these contradictions, when they were pointed out to him, without seeming in the least disturbed by them and without making any effort to explain them. Cleckley writes:

"He did not seem to feel any need to revise his attitude as the ordinary man does on finding himself in error. The fact that he had been ... on the wrong track seemed in no way to stimulate him toward getting on another track. He impressed me as being this way about the most serious and practical matters... It was not hard to get the feeling that he had never been on any track at all...." [35]

An objection that might be raised against the use of diagnostic interviews as a means of proving psychopaths are unable to appreciate the wrongness of criminal conduct is the possibility that interviewees may deliberately set out to deceive interviewers (e.g., by feigning the symptoms of psychopathy). [36] Again, in response, it should be noted that this difficulty is not unique to psychopathy. Feigning mental illness in order to achieve some external incentive (e.g. evading criminal responsibility, avoiding military service or gaining financial compensation) is known as 'malingering'. [37] Malingering is especially problematic in medico-legal contexts and has been studied in relation to a wide variety of conditions, including amnesia and post-traumatic stress disorder.[38] Some of the techniques that have been devised to detect malingering may be helpful in the context of psychopathy. [39]

Another complicating factor is that interviewees may lack insight into the nature of their own condition. For example, individuals who have never felt guilty may be confused about what guilt is. They may learn to associate the word 'guilt' with, for instance, the experience of being apprehended after committing a wrongful action. This may lead them to mislabel other feelings (e.g. regret at being caught, discomfort experienced during punishment) as 'guilt'. Therefore, they may inaccurately report having felt guilt over their wrongful actions without even attempting to mislead the interviewer. [40] One way of overcoming such difficulties is by employing interview techniques that are sufficiently refined, subtle and probing and which take into account non-verbal forms of communication. Thomas Widiger and Douglas Samuel summarise some of the strategies interviewers use:

"[Interviews include]...many open-ended questions and indirect inquiries as well as observations of the respondents' manner of responding and relating to the interviewer....Interviewers do not simply record respondents' answers to direct questions. They follow up respondents' answers with further queries to ensure that a diagnostic criterion is, in fact, present (or absent). The diagnostic rating is not simply that patient's opinion regarding the presence of each diagnostic criterion; it is, instead, the interviewer's opinion based on the substantial amount of information that was generated by the semi-structured interview." [41]

Training and experience can enable an interviewer to gain the maximum amount of accurate and useful information from diagnostic interviews. The PCL-R manual recommends that clinicians who assess individuals for psychopathy possess appropriate qualifications; are familiar with the relevant empirical literature and have undergone training in using the relevant diagnostic criteria and in interpreting the results of assessments. [42] It is also important that interviewers have had clinical experience with the specific population being assessed (e.g. if the interviewee is a female offender, the interviewer should have had clinical experience with female offenders). [43] Skilled interviewers are also aware of the ways in which an interviewee's responses may be affected by factors such as age, IQ and socio-economic background. These three factors can affect the extent of the interviewee's vocabulary (including knowledge of emotional and value-laden terms) and the complexity and sophistication of the interviewee's responses. [44]

One benefit of training programmes for interviewers is that they do not simply aim to teach clinicians a set of procedures to follow; they also aim to equip interviewers with the necessary skills and background knowledge required to make informed judgements about how to engage with individual interviewees. The clinician must be able to respond to the interviewee in a flexible way and cannot be restricted to a rigid set of questions drawn up in advance of the interview.

One criticism that may be levelled at this flexible approach to interviews is that it tends to result in decreased inter-rater reliability. In other words, if the structure of the interview is less standardised, there will be more scope for disagreement between different clinicians about whether a particular interviewee should be diagnosed as psychopathic and about the severity of the interviewee's condition. In response, it should be noted that the system of 'semi-structured' interviews aims to strike a balance between providing a framework of core issues that all interviewers should cover and also allowing clinicians a degree of freedom in deciding how to conduct the interview.

Inter-rater disagreement is much more likely when the raters are experts retained by opposing sides in adversarial court proceedings than when they are operating in research contexts. For instance, various studies indicate very strong inter-rater agreement for the PCL-R in research contexts. [45] However, (unsurprisingly) studies in adversarial contexts suggest that defence experts tend to give PCL-R scores that are more supportive of the defence's case and prosecution experts tend to give PCL-R scores that lend more support to the prosecution's case. [46] In some cases the divergence between scores has been dramatic. [47] However, inter-rater disagreement about PCL-R scores in adversarial proceedings may point to a wider problem with expert testimony, rather than simply reflecting a problem specifically for the assessment of psychopathy. As Murrie et al observe, '...a scoring drift consistently in the direction of adversarial allegiance would appear more attributable to evaluators than to the [PCL-R].' [48] Indeed, there is considerable evidence that the problem of partisanship among expert witnesses is not limited to cases involving psychopathy. [49] One approach to overcoming this problem is to increase awareness amongst expert witnesses of their professional ethical codes, which give guidance on avoiding partisan influence. [50] Another more radical option would be for the court to 'appoint entirely neutral and independent evaluators'. [51]

## 5. THE MORAL/CONVENTIONAL DISTINCTION

The 'moral/conventional test' is one of the best-known methods of assessing psychopaths' moral understanding. [52] This test was first used in the 1970's by Elliott Turiel and other psychologists working in the field of child development. [53] These psychologists maintain that transgressions can be divided into two distinct categories - moral transgressions (e.g. killing, physically injuring or causing serious psychological harm to another person) and conventional transgressions (e.g. chewing gum in class, parking on double yellow lines, or licking one's plate at the dinner table). The moral/conventional test probes whether individuals can grasp this distinction.

Moral transgressions are characterised in terms of the following features: 1) they involve harm, injustice, or violations of rights; 2) they are more serious than conventional transgressions and 3) they are wrong regardless of whether there is a socially acknowledged rule against them. [54] In contrast, conventional transgressions have the following features: 1) they do not involve an identifiable victim who has been significantly harmed, rather they are often considered to be wrong because they breach rules that facilitate social co-ordination; 2) they are typically not as serious as moral transgressions and 3) they derive their significance from the rules or customs of a particular society and would not be wrong if those rules or customs were altered, e.g. by an authority figure removing the prohibition.

Turiel's distinction between moral and conventional transgressions seems to be largely in accordance with common-sense intuition. Furthermore, a very similar division has been recognised in the context of the criminal law - between crimes that are *mala in se* (crimes that are 'wrong in themselves', i.e. inherently morally wrong) and crimes that are *mala prohibita*. (crimes that are 'wrong because they are prohibited', i.e. behaviour that is not wrongful independently of a law that prohibits it). [55] Although, Turiel's categories are somewhat broader than *mala in se* and *mala prohibita*, since not all moral and conventional transgressions are crimes. It is submitted that there is a morally important distinction between cases classified as archetypal moral transgressions/ *mala in se* on the one hand and those classified as archetypal conventional transgressions/ *mala prohibita* on

the other. If psychopaths cannot appreciate the difference between central cases of these different categories of wrongdoing, then they cannot be said really to appreciate the nature or wrongness of what they have done and cannot fairly be held criminally responsible.

Turiel and his colleagues carried out a number of studies exploring whether non-psychopathic children could draw a distinction between moral and conventional transgressions as described above. The children were presented with stories involving examples of moral and conventional transgressions with which they would be familiar. The instances of moral transgressions used in the studies almost always involved an aggressor causing physical harm to a victim (e.g. A hits B, making B cry). In contrast, the conventional transgressions were more varied, including breaches of school rules (e.g. talking in class), family rules (e.g. not clearing one's dishes) or etiquette (e.g. licking one's plate). The children were asked a series of simple questions about the stories, (e.g. 'is the action bad to do?', 'How bad is the action?', 'why is the action bad to do?', 'would it be OK to do the action if there was no rule against it, or if the teacher said it was OK?'). The results of these studies suggest that children as young as thirty-nine months, from a variety of cultural backgrounds, can distinguish between moral and conventional transgressions in the predicted manner. [56] James Blair used the moral/conventional test both with children who were diagnosed as having psychopathic tendencies according to the PCL-R and with adult PCL-R psychopaths. [57] The results showed that these groups were far less likely than non-psychopaths consistently to draw the moral conventional distinction.

The moral/conventional test does seem to be a promising method of assessing an individual's moral understanding. It has been argued that a psychopath who is incapable of empathy would see 'morality' as just a set of arbitrary, externally-imposed prohibitions. [58] One would therefore expect that these psychopaths would fail to see a significant difference between moral and conventional wrongs. Given their lack of empathy, one would predict that psychopaths might fail to make reference to the victim's welfare when explaining why an action was bad. Non-psychopathic children, who were given the moral/conventional test, typically said that moral transgressions (such as hitting and kicking another child to make her cry) were bad because they hurt the victim. [59] In contrast, when the PCL-R psychopaths in Blair's study were asked why such actions were bad, they gave answers such as 'it's not socially acceptable'. [60] This was also the kind of answer that was given when explaining why breaches of conventions (e.g. etiquette) were bad, suggesting that these PCL-R psychopaths perceived no fundamental difference between moral norms concerned with others' welfare and rules of etiquette.

It should be noted that the way in which the moral/conventional and the *mala in se/mala prohibita* distinctions are *traditionally formulated* is somewhat misleading. Sometimes *mala prohibita* are described as administrative offences and are not characterised as morally wrongful. In fact, *mala prohibita* and many so-called 'conventional' transgressions are better characterised as particular kinds of moral wrong, which are nevertheless crucially distinct from *mala in se*. *Mala in se* are inherently morally wrongful and do not derive their wrongful status from existing laws. In contrast, as Duff persuasively argues, the *moral* wrongfulness of *mala prohibita* depends on the existence of legal regulations that prohibit them. [61] For example, the activity of driving is dangerous, so a licensing regime was created in order to promote safety. Prior to the licensing regime, driving without a licence was not a moral wrong (unlike *mala in se* e.g. murdering innocent people which would be immoral whatever the law said



about it). However, the introduction of laws concerning driving licences,[62] gave rise to a *moral* obligation on drivers to obey these laws both to 'ensure' that they had met the relevant safety standards and also to 'assure' other citizens that these standards were met.[63] Violating the relevant *malum prohibitum* therefore involves violating a moral duty. Violating related laws (e.g. forging a license) [64] is also morally wrong since it undermines a system that was designed to promote the general welfare of society. Similar arguments can be made in relation to some of Turiel's examples of 'conventional' transgressions. Consider, for example, two pupils talking in class when the teacher has told them to be silent. The pupils' behaviour undermines a regime that was designed to promote the welfare of the whole class (that is, enabling children to learn). [65]

One criticism that has been made of the *mala in se/mala prohibita* distinction is that *mala in se* cannot be inherently morally wrong, because some crimes, e.g. abortion,[66] are considered to be *mala in se* in some times and jurisdictions and not in others. [67] In response, it is important to understand that a crime does not have to be *actually* inherently morally wrong in order to be classed as a *malum in se*, but it must *purport* to be morally wrong within that legal system. It is not necessary for a law-breaker to accept that the *malum in se* he committed was actually inherently morally wrong before he can be held responsible for committing that *malum in se*. He just has to be capable of understanding what a *malum in se* is, although he may not agree that the crime he committed should be classified as such. The moral/conventional test can reveal whether a person understands the key features of *mala in se*.

So the above criticism does not undermine the validity of the distinction between moral wrongs/*mala in se* on the one hand and conventional wrongs/*mala prohibita* on the other. They just have to be recast slightly. Although the name of the moral/conventional test is misleading, the substance of the test can remain largely intact. (However, this article will continue to refer to the test as the 'moral/conventional' test, because this is the way the test is always referred to in the literature.)

Another controversy surrounding the moral/conventional test relates to the correct approach to interpreting the results of the test, rather than to the validity of the moral/conventional distinction itself. Manuel Vargas and Shaun Nichols seem to accept that it is reasonable to interpret a *complete failure* to draw the moral/conventional distinction as providing some evidence of a lack of moral understanding. [68] However, they maintain that the adult PCL-R psychopaths in Blair's study did 'not miss every case of the moral/conventional' distinction. [69] Therefore, they conclude that those participants only showed *diminished* moral understanding, not a complete *lack* of moral understanding.

In response, Vargas' and Nichols' approach to interpreting the results of the moral/conventional distinction test is too demanding. It does not follow that participants who genuinely lack moral understanding would classify *all* the transgressions incorrectly. Assuming that participants who lacked moral understanding answered the researchers' questions by guessing, one would actually expect them to classify some transgressions correctly just by chance. [70]

Secondly, an ability to answer some of the questions correctly may be explained by the phenomenon of 'parroting', which was discussed above. For example, psychopaths may learn that certain crimes are punished more severely than

others and so may correctly describe those crimes as very serious, without really appreciating the reasons why those crimes are regarded as serious. It is therefore important to supplement the moral/conventional test with other techniques for assessing psychopaths' moral understanding, such as interviews.

## 6. STUDIES INVOLVING AUTONOMIC RESPONSES AND BRAIN SCANS

It has been claimed above that the capacity to empathise is necessary in order to appreciate the wrongness of criminal conduct and to be held responsible. One way of assessing whether a person is capable of empathy is to examine the physiological and neural responses associated with the exercise of this capacity. The tests that will be discussed in the first part of this section are concerned with measuring an individual's distress reaction to the distress of another. While the model of 'empathy' used in this article cannot entirely be reduced to a negative feeling in response to another person's distress, this is nevertheless regarded an essential element of empathy.

The previous sections also noted various ways in which the psychopath's failure to appreciate the moral wrongness of criminal conduct can become evident - e.g. a failure to draw the moral/conventional distinction and the tendency to make contradictory statements regarding moral concepts without recognising these statements as contradictory. It was also noted, however, that even when psychopaths appear to talk more coherently about moral issues they may be 'parroting' rather than making genuine moral judgements. The second half of the present section will discuss studies of the brain activity of psychopaths when carrying out moral reasoning tasks. These studies seem to lend support to the idea that psychopaths do not make genuine moral judgements.

### 6 (A) LACK OF EMPATHY: THE EVIDENCE

As a general rule, most non-psychopathic people seem to experience some level of negative feelings when they witness the suffering of other people and exhibit characteristic physiological and neural responses associated with these feelings. [71] Autonomic responses are involuntary physiological reactions (e.g. increased perspiration, increased heart rate) to various stimuli (including emotional stimuli). Studies have been carried out on the autonomic responses of people who are shown images of faces bearing neutral expressions and faces of people in distress. These studies indicate that non-psychopaths have markedly higher levels of perspiration in response to viewing distressed faces than when they view neutral faces. In contrast, PCL-R assessed psychopaths, (who according to interviews and collateral information seem to be incapable of empathy) show limited or no increase in perspiration when viewing distressed faces as compared with neutral faces. [72]

The principle of psycho-neural pairing is widely accepted by both philosophers and neurologists. According to this principle, for every mental state (e.g. a thought, an intention, an emotion etc.) there is a corresponding brain state. [73] Therefore, if someone was really lacking in empathy one would predict that this deficit would be indicated *both* by 1) diagnostic interviews and cognitive tests and also by 2) unusual activity and/or structure in the relevant parts of the brain. Neuro-imaging techniques have revealed that non-psychopaths show increased activation in visual cortical areas of the brain in response to images of sad and fearful faces when compared with neutral faces. [74] This phenomenon is not seen in patients judged to be psychopathic according to the PCL-R.

Studies also suggest that another area of the brain, the amygdala, may be involved in non-psychopathic people's visual cortical responses to emotional images [75] and that psychopaths' amygdalas may function abnormally.[76] Experiments have been performed to try to establish whether the structure of the amygdala in psychopaths is unusual. Some studies have shown that the amygdalas of psychopaths are substantially lower in volume than the amygdalas of non-psychopaths. [77]

What conclusions can be drawn from these experiments? They seem to indicate that psychopaths do not show the same affective responses as non-psychopaths to representations of the distress of other people. It might be objected that it is unsurprising that a criminal psychopath who has chosen to adopt a callous and anti-social lifestyle might show reduced responsiveness to the distress of others. This difference, the objection runs, may simply reflect psychopaths' wilful suppression of their empathic capacities, rather than a lack of those capacities. In response, the following factors are of relevance. Firstly, evidence suggests that psychopaths' apparent lack of affect in response to visual distress cues seems to be evident in early childhood. This lends some support to the hypothesis that at least some diagnosed psychopaths suffer from a developmental disorder, and that the lack of empathy characteristic of their condition does not arise from the adult psychopath's choices. If psychopathy deprives the child of the capacity for empathy then this may have the potential to undermine moral development and prevent the acquisition of moral concepts. Secondly, it is instructive to note that the control groups in some of the studies (who were responsive to the distress cues) were non-psychopathic violent offenders serving sentences for either murder or manslaughter. [78] This casts some doubt on the hypothesis that psychopaths' lack of responsiveness to other peoples' distress is simply a normal result of leading a callous anti-social lifestyle. (It also undermines the worry expressed in cases like *Carraher* that psychopaths cannot be differentiated from the majority of other criminals.) None of this conclusively establishes that psychopaths lack the capacity to respond emotionally to other people's distress. It may be, for instance, that while they fail to exercise this capacity under the experimental conditions, they may nevertheless exercise it under other conditions. However, the fact that some psychopaths fail to exercise the capacity to respond emotionally to another's distress under conditions where non-psychopaths seem almost invariably to exercise it seems to lend some support to the view that these psychopaths lack the capacity.

## 6 (B) PSYCHOPATHS AND MORAL JUDGEMENTS

Investigations have been carried out to compare the brain-activity of psychopathic and non-psychopathic prisoners when carrying out moral judgement tests. [79] The participants in these studies were asked to rate the actions in various scenarios they were presented with on a scale from 'no moral violation' at one end to 'extremely serious moral violation' at the other. When non-psychopathic prisoners carried out this task, increased activation occurred in the ventromedial prefrontal cortex and the amygdala - areas of the brain which have been shown in previous studies to be associated with making moral judgements. [80] In contrast, psychopaths did not exhibit increased activation in these areas of the brain. Instead, activation occurred in the temporo-parietal junction - a part of the brain associated with 'theory of mind' (i.e. concerned with working out what other people are thinking). [81] A plausible hypothesis that could explain these unusual results is that, rather than making real moral judgements, the psychopaths are trying to work out which answer will make themselves 'look good' in the eyes of the officials in charge of them. They

certainly have a strong motivation to do this, since their chances of being released from prison, depend partly on the officials' assessment of their likelihood of reoffending. While non-psychopathic prisoners have an equally strong motivation to 'get the right answers', they have no need to try to work this out by considering what the officials might be thinking, because they already know the difference between right and wrong. [82] Further support for the hypothesis that psychopaths are merely parroting social rules, rather than understanding morality from the inside comes from data on the correlations between IQ and psychopaths' responses to moral judgement tests. [83] This data suggests that psychopaths with high IQs seem to rank the comparative seriousness of moral transgressions more in line with non-psychopathic subjects than do psychopaths with lower IQs. In contrast, basic moral judgements of this kind do not seem to vary with IQ in this way in non-psychopathic populations. A high IQ can, however, help a person to figure out in a purely intellectual fashion and memorise which social rules other people operate by.

Again, this data, by itself, does not conclusively establish that psychopaths lack genuine understanding of the wrongness of criminal conduct. However, taken together with other evidence (e.g. evidence from interviews indicating an inability to justify their apparent moral judgements) this data could form part of a persuasive case that psychopaths indeed lack genuine moral understanding.

Finally, although in this article the data on empathy has been discussed separately from the studies concerning brain activity during moral reasoning tasks, it is interesting to note that there is some evidence that the amygdala - the area of the brain that seems to be involved in empathic responses to other people's distress - is also involved in moral reasoning. Some studies suggest that the amygdala plays a central role in moral development, enabling the individual to learn about the wrongness of actions that harm others. [84] Other studies also suggest that the amygdala becomes activated when subjects actually make moral judgements. [85] This lends some support to the argument that empathy is necessary for moral understanding. However, due to space constraints it is not possible to further analyse this evidence here.

Brain scans and autonomic testing can never supplant other forms of assessment, such as interviews and cognitive testing. Data concerning how psychopaths actually relate to other people will always be required in order to identify in the first place which individuals it would be informative to investigate further at the neurological and physiological level. Physiological and neural data can, however, play an important role in conjunction with data from other sources (e.g. interviews) by, for instance, helping to determine whether or not certain factors have distorted the results of these other tests. For example language problems and/or reluctance to talk about emotions may create a misleading impression that an interviewee experiences little or no affect. Brain scans which suggest normal responses at the neural level may give interviewers reason to re-examine the results of the interview and conduct further investigations. Physiological and neural data can also corroborate other evidence that a psychopathic offender lacked moral understanding and could form an important part of the case for excusing such an offender from criminal responsibility.

## 7. CONCLUSION

The defence of mental disorder in Scots law and the proposed defence of recognised medical condition in English law both provide that individuals can be excused from criminal responsibility if they are unable to appreciate the wrongfulness of criminal conduct. This article has evaluated various techniques (including psychiatric interviews, the moral/conventional test, neurological and physiological tests), which could be used to establish whether psychopaths are unable to appreciate the wrongfulness of criminal conduct. Ideally, all of these techniques would be used in conjunction in order to investigate a psychopathic individual's capacity for moral understanding from many different angles. These techniques undeniably face certain challenges. However, many of these limitations are not unique to the context of psychopathy. They also arise in relation to medical evidence concerning a range of other mental disorders. It is submitted that these techniques are sufficiently promising to warrant placing the evidence of such tests before a jury. The jury should be allowed to decide whether, in any particular case, it has been established that a person with psychopathy was unable to appreciate the wrongfulness of criminal conduct.

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[1] W. Sinnott-Armstrong, K. Kiehl, *Handbook of Psychopathy and Law* (OUP, 2013), p1.

[2] E.g., W. Glannon, 'Psychopathy and Responsibility' (1997) 14 *Journal of Applied Philosophy* 263; M. Mei-Tal, 'The Criminal Responsibility of Psychopathic offenders' (2004) 36 *Israel Law Review* 103; S Morse, 'Psychopathy and Criminal Responsibility' (2008) 1 *Neuroethics* 205; E Shaw, 'Psychopaths and Criminal Responsibility' 13 (2009) *Edinburgh Law Review* 497.

[3] Law Commission, *Discussion Paper on Insanity and Automatism* (Law Com DP, 2013), pp80-81 - hereafter "Law Commission, *Discussion Paper*".

[4] E.g., H Maibom, 'The Mad, the Bad and the Psychopath' (2008) 1 *Neuroethics* 167.

[5] *Carragher v HMA* 1946 JC 108 at 117, per Lord Normand.

[6] The original Psychopathy Checklist was created by R Hare in 'A Research Scale of the Assessment of Psychopathy in Criminal Populations' (1980) 1 *Personality and Individual Differences* 111. It was revised by R Hare, *The Hare Psychopathy Checklist Revised* (2<sup>nd</sup> edn Multi-Health Systems, Toronto 2003). Similar checklists for juvenile psychopathy have been developed. These include the P Frick and R Hare, *The Anti-Social Process Screening Device* (Multi-Health Systems, Toronto, Ontario 2001) and A Forth et al, *The Psychopathy Checklist - Youth Version* (Multi-Health Systems, Toronto, Ontario 2003).

[7] An early two factor model was put forward in: Harpur et al, 'Factor Structure of the Psychopathy Checklist' (1988) 56 *Journal of Consulting and Clinical Psychology* 741. For a three factor model see: D Cook and

C Michie, 'Refining the Construct of Psychopathy: Towards a Hierarchical model' (2001) 13 *Psychological Assessment* 171; For a four factor model see: M M Vitacco et al, 'Testing of a Four Factor Model of Psychopathy: Associations with Gender, Ethnicity, Intelligence and Violence' (2005) 73 *Journal of Consulting and Clinical Psychology*.

[8] The following study suggests, however, that a score of 25 in Scotland is actually equivalent to a score of 30 in North America: D Cooke and C Michie, 'Psychopathy Across Cultures: North America and Scotland Compared' (1999) 108 (1) *Journal of Abnormal Psychology* 58

[9] See references in fn 1, above.

[10] R. Hare, *Without Conscience: The Disturbing World of the Psychopaths Among Us* (The Guilford Press, New York 1999), p44. Hare, himself, did not think that psychopaths should be relieved from responsibility, however.

[11] For a discussion of the different uses of this concept see: S Baron-Cohen, S Wheelwright, "The Empathy Quotient: An Investigation of Adults with Asperger Syndrome or High Functioning Autism, and Normal Sex Differences" (2004) 34 (2) *Journal of Autism and Developmental Disorders* 163.

[12] It involves the ability to feel an emotion that complements or is appropriately connected to the emotion experienced by another person, e.g. pity in response to another person's sadness

[13] J Deigh, 'Empathy and Universalizability' (1995) 105 (4) *Ethics* 743.

[14] See references in fn 2 for detailed arguments in support of this claim.

[15] Trial judges have reported that they view psychopathy as an aggravating factor in sentencing. This view seems to be based on the assumption that psychopaths require harsher sentences to deter them. L. Aspinwall, T. Brown and J. Tabery, "The Double-Edged Sword: Does Biomechanism Increase or Decrease Judges' Sentencing of Psychopaths?" (2012) 337 *Science* 846. I am thankful to an anonymous reviewer for drawing this study to my attention.

[16] R. Umbach, C. Berryessa and A. Raine, "Brain Imaging Research on Psychopathy: Implications for Punishment, Prediction, and Treatment in Youth and Adults" (2015) 43 (2) *Journal of Criminal Justice* 295.

[17] A. Duff, "Psychopathy and Answerability" in L Malatesti and J McMillan, *Responsibility and Psychopathy: Interfacing Law, Psychiatry and Philosophy* (2010)

[18] Criminal Procedure (Scotland) Act 1995 (hereafter "the 1995 Act") s 51A, inserted by the Criminal Justice and Licensing (Scotland) Act 2010 s 168. This was enacted following the Scottish Law Commission's Report on Insanity and Diminished Responsibility (Scot Law Com No 195, 2004) - hereafter "SLC, Report".

[19] 1995 Act, s51A(2).

[20] *M'Naghten* [1843] UKHL J16

[21] The current definition of insanity in English law is as follows:

'[T]o establish a defence on the ground of insanity it must be clearly proved that, at the time of the committing of the act, the party accused was labouring under such a defect of reason from disease of the mind, as not to know the nature and quality of the act he was doing; or if he did know it, that he did not know he was doing what was wrong.'  
*McNaghten's Case* (1843) 10 Cl & F 200, per Lord Chief Justice Tindal at 210.

[22] Law Commission, *Discussion Paper*, pp80-81. Instead of naming a particular personality disorder in the proposed legislation, they recommend referring to the excluded disorder as a condition "which is characterised solely or principally by abnormally aggressive or seriously irresponsible conduct" (Law Commission, *Discussion Paper*, p193). This is the same phrase that appears in the equivalent Scottish legislation.

[23] 1995 Act, s51A.

[24] Law Commission, *Discussion Paper*, p20.

[25] 1995 Act, s 51A, *Explanatory Notes*; Law Commission, *Discussion Paper*, p53.

[26] Law Commission, *Discussion Paper*, p80. This concern was also raised in the Scottish case of *Carraher v HMA* 1946 JC 108 at 117, per Lord Normand.

[27] S Penney, "Impulse Control and Criminal Responsibility: Lessons from Neuroscience" (2012) 35(2) *International Journal of Law and Psychiatry* 99-103.

[28] S Nichols, "How Psychopaths Threaten Moral Rationalism, or Is it Irrational to Be Amoral?" (2002) 85 *The Monist* 28.

[29] J Glover, *Responsibility* (Humanities Press, New York 1970), 138, citing G Stevenson, *The Development of Conscience* (Humanities Press, New York 1966). Similar observations have also been made more recently, e.g. 'It is also noteworthy that diagnosed psychopaths tend to have a flat view of the seriousness of rule violations. For instance, a psychopath will typically assert that jay-walking is not much less serious than robbing a bank.' B Maxwell and L Le Sage, 'Are Psychopaths Morally Sensitive?' (2009) 38 (1) *Journal of Moral Education* 75. Some diagnosed psychopaths, however, seem able to rank the comparative seriousness of moral wrongs more in line with non-psychopathic subjects. This ability seems to depend on two factors - psychopaths' experiences of punishment and their IQ. For instance the following study found, unsurprisingly, that some incarcerated psychopathic offenders have reported that wrongs similar to those for which they have been incarcerated (e.g. violence or theft) are more 'serious' than various other transgressions which are not punishable by law. J Blair et al, 'Is the Psychopath "Morally Insane"?' (1995) 19 (5) *Journal of Personality and Individual Differences* 741, p749. For discussion of the effect of IQ see Section Four, below.

[30] It seems highly unlikely that someone brought up in this society would have developed a system of values which had no intelligible connection with the values of the rest of the society. RA Duff goes even further, arguing that it 'makes no sense' to say that such a person's values could have no 'intelligible logical connection' with those of the rest of society. R Duff, 'Psychopathy and Moral Understanding' (1977) 14 *American Philosophical Quarterly* 189, 197-198.

[31] T Szasz, *The Myth of Mental Illness* (Harper & Row, New York 1974).

[32] E.g. Bhugra D, Bhui K (eds), *Textbook of Cultural Psychiatry* (CUP, Cambridge 2007).

[33] R A Duff, 189.

[34] *Ibid* 196.

[35] Hervey Cleckley, *The Mask of Sanity* (5<sup>th</sup> edn Mosby, St Louis 1988) 90.

[36] As Scott Lilienfeld and Katherine Fowler observe, it seems paradoxical to 'attempt to identify a condition marked by dishonesty by asking individuals to respond honestly to questions regarding this condition.' S Lilienfeld and K Fowler, 'The Self-Report Assessment of Psychopathy: Problems, Pitfalls, and Promises' in C Patrick (ed), *Handbook of Psychopathy* (The Guilford Press, London 2006). (Henceforth: Patrick, *Handbook of Psychopathy*).

[37] American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, (4th edn American Psychiatric Association, Washington, DC 2000).

[38] D Bourget and L Whitehurst, 'Amnesia and Crime' (2007) (35) (4) *Journal of American Academy of Psychiatry and the Law* 469; E Hickling et al, 'Simulation of Motor Vehicle Accident Related PTSD: Effects of Coaching with DSM-IV Criteria' in E Hickling and EB Blanchard (eds), *The International Handbook of Road Traffic Accidents and Psychological Trauma: Current Understanding, Treatment and Law* (Elsevier, New York 1999).

[39] For a useful summary of tests to detect malingering see: Singh et al, 'Malingering of Psychiatric Disorders: A Review' (2007) (10) (4) *German Journal of Psychiatry* 126. There is, at present, not a strong incentive to feign psychopathy, since in most jurisdictions the condition cannot form the basis of a legal excuse, and can sometimes be an aggravating factor when sentencing. However, if the law were changed in this respect malingering in the context of psychopathy may prove more problematic. Another complicating factor is the possibility that psychopaths may feign other mental disorders. However, research indicates that there may be no statistically significant correlation between psychopathy (as diagnosed by the PCL-R) and malingering of other mental disorders: L Kucharski et al, 'Psychopathy and Malingering of Psychiatric Disorder in Criminal Defendants' (2006) 24 (5) [Behavioral Sciences and the Law](#) 633.

[40] This possibility is raised in Lilienfeld and Fowler, fn 35 above.



[41] T Widiger and D Samuel, 'Evidence-Based Assessment of Personality Disorders' (2005) 17(3) *Psychological Assessment* 278, 282-283.

[42] The PCL-R manual recommends that they should have an advanced degree in the medical, social or behavioural sciences and should have completed graduate coursework on psychometrics and psychopathology - R Hare, *The Hare Psychopathy Checklist Revised* (2<sup>nd</sup> edn Multi-Health Systems, Toronto 2003).

[43] J Edens and J Petrila, 'Legal and Ethical Issues in the Assessment and Treatment of Psychopathy' in Patrick, *Handbook of Psychopathy*, fn 3, above.

[44] For example, IQ and Socio-economic status (SES) affect responses to 'Kohlberg's paradigm'. In Kohlberg's paradigm, participants are asked to decide how the characters in a series of vignettes should respond to various moral dilemmas and to justify their answers. R Sweder et al, 'Culture and Moral Development' in J Kagan and S Lamb (eds) *The Emergence of Morality in Young Children* (Chicago University Press, Chicago IL 1987). See also fn 39 below.

[45] Results of studies into the reliability of the PCL-R are contained in R Hare, *The Hare Psychopathy Checklist Revised* (2<sup>nd</sup> edn Multi-Health Systems, Toronto 2003). See also, R Hare and C Neumann, 'The PCL-R Assessment of Psychopathy: Development, Structural Properties and New Directions' in Patrick, *Handbook of Psychopathy*.

[46] T Campbell, 'The Validity of the Psychopathy Checklist-Revised in Adversarial Proceedings' (2006) 6 (4) *Journal of Forensic Psychology Practice* 43 (Henceforth: T Campbell); D Murrie et al, 'Does Inter-rater (Dis)agreement on Psychopathy Checklist Scores in Sexually Violent Predator Trials Suggest Partisan Allegiance in Forensic Evaluations?' (2008) 32 *Law and Human Behaviour* 352 (Henceforth: D Murrie et al, 'Inter-rater Disagreement'); J Edens, 'Misuses of the Hare Psychopathy Checklist-Revised in Court: Two Case Examples' (2001) 16 *Journal of Interpersonal Violence* 1082.

[47] See, for example, the Canadian case of *R v KS* (2004) OJ no 3826. One examiner gave the offender a PCL-R score of 19/40 and the other examiner gave the offender him a score of 33/40. See also, *R v LaRue* (2003) BCD Crim J 14785.

[48] D Murrie et al, 'Inter-rater Disagreement', 360, fn 41 above.

[49] For a discussion of this see: D Murrie et al, 'Forensic Assessment of Violence Risk in Adversarial Proceedings: Pursuing Objectivity and Avoiding Bias' (2008) (7) (4) *Journal of Forensic Psychology Practice* 141.

[50] D Murrie et al, 'Inter-rater disagreement', fn 41 above.

[51] T Campbell, 51, fn 41 above. For a discussion of some of the issues raised by this see, e.g.: J Mnookin, 'Expert Evidence, Partisanship and Epistemic Competence' (2008) 73 *Brooklyn Law Review* 1009; S Haack, 'Truth and Justice, Inquiry and Advocacy, Science and Law' (2004) 17(1)

Ratio Juris 15; C Jones, *Expert Witnesses: Science, Medicine and the Practice of Law* (Oxford, Clarendon Press 1994).

[52] The moral/conventional distinction has also been central to more general philosophical discussions concerning the nature of morality. See e.g. S Nichols, *Sentimental Rules: On the Natural Foundations of Moral Judgement* (OUP, Oxford 2004). Other tests include 'Kohlberg's paradigm' which is discussed in J Blair et al, *The Psychopath: Emotion and the Brain* (Blackwell, Oxford 2005), pp 56-57. It has not been discussed here principally because its utility is undermined by the fact that it is highly sensitive to the respondents' IQ and level of education.

[53] E.g., E Turiel, *The Development of Social Knowledge: Morality and Convention* (CUP, Cambridge 1983); J Smetana, 'Understanding of social rules' in M Bennett (ed), *The Development of Social Cognition: The Child as Psychologist* (Guilford Press, New York 1993); L Nucci, *Education in the Moral Domain* (CUP, Cambridge 2001).

[54] Turiel, *The Development of Social Knowledge*, fn 52 above.

[55] There is some judicial authority for this distinction: *Duguid v Fraser* 1942 JC 1; *Sweet v Parsley* [1942] AC 132. It is also used by some criminal law textbooks: G Gordon, *The Criminal Law of Scotland* (2<sup>nd</sup> edn W Green, Edinburgh, 1978); W La Fave and A Scott, *Criminal Law* (2<sup>nd</sup> edn, West Group, St Paul 1986); A Simester and G Sullivan *Criminal Law: Theory and Doctrine* (Hart, Oxford 2000). However, the utility of the distinction is questioned by, e.g. T Jones and M Christie, *Criminal Law* (4<sup>th</sup> edn W Green, Edinburgh 2008), p30. Their concerns relate primarily to 1) variation in what is considered to be 'inherently immoral' (for a reply to this concern see the text below) and 2) the existence of hybrid and borderline cases (but see fn 7 below).

[56] E.g., L Nucci et al, 'Social Interactions and Social Concepts: Analysis of Morality and Convention in the Virgin Islands' (1983) 14 *Journal of Cross-Cultural Psychology* 469; M Song et al, 'Korean Children's Conception of Moral and Conventional Transgressions' (1987) 23 *Developmental Psychology* 577.

[57] Re studies on children: J Blair et al 'Moral Reasoning and Conduct Problems in Children with Emotional and Behavioural Difficulties' (2001) 31 *Personality and Individual Differences* 799; J Blair, 'Moral Reasoning in the Child with Psychopathic Tendencies' (1997) 22 *Personality and Individual Differences* 731. Re adult psychopaths: J Blair et al, 'Is the Psychopath "Morally Insane"?' (1995) 19 *Journal of Personality and Individual Differences* 741; J Blair, 'A Cognitive Development Approach to Morality: Investigating the Psychopath' (1995) 57 *Cognition* 1. It should be noted that caution must be exercised about attempting to draw from such studies general conclusions about the incapacities experienced by *all* psychopaths. For one thing, the last study mentioned above on adult psychopaths was very small (involving just ten subjects). The limitations of Blair's study does not, however, undermine my main claims that the moral/conventional distinction test has considerable potential to establish whether *particular* psychopaths lack moral understanding (and hence should not be held

criminally responsible) and that it should be possible to place before a jury the results of such tests given to particular offenders.

[58] See references in fn 1 above.

[59] See references at fn 56 above.

[60] J Blair, 'A Cognitive Development Approach to Morality: Investigating the Psychopath' (1995) 57 *Cognition* 1.

[61] A Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Hart, Oxford 2007), pp89-93 and pp166-174.

[62] Road Traffic Act 1988, s 87.

[63] A Duff, fn 56 above.

[64] Road Traffic Act 1988, s174.

[65] According to Turiel (1983), moral transgressions involve injustice, rights violations or adversely affecting others' welfare. However, there are other transgressions that are sometimes considered to be morally wrong, but which cannot easily be explained in terms of Turiel's criteria for moral wrongfulness. For example studies indicate that certain groups tend to label acts as immoral if they consider them to be really disgusting, even if those acts are done in private. While this finding is interesting it does not undermine the characterisation of *central* cases of moral wrongdoing. See J Haidt and M Dias, 'Affect, Culture and Morality. Or: Is It Wrong to Eat Your Dog?' (1993) 65 *Journal of Personality and Social Psychology* 613.

[66] Procuring an abortion is a common law crime: D Hume, *Commentaries*, i, 186-7; *HM Advocate v Anderson* 1928 JC 1. However, abortion is legal in the circumstances set out by the Abortion Act 1967, s 1. It is an interesting question whether an abortion carried out without the requirements having been met purports to be a *malum in se* or a *malum prohibitum*. It probably depends on the circumstances. For example, an abortion carried out without two independent medical practitioners actually having been consulted might be a *malum prohibitum* if it were clear that, had they been consulted, they definitely would have agreed that the requirements in s1(1) were met. In contrast a late stage abortion, where the requirements were not met might be a *malum in se*. However, it is submitted that borderline and hybrid cases like this do not undermine the validity of the central cases of *mala in se* and *mala prohibita*. On hybrid cases see, Duff, fn 56above, p166-172.

[67] M Davis, 'Crimes Mala in Se: An Equity-Based Definition' (2006) 17 *Criminal Justice Policy Review* 270.

[68] M Vargas and S Nichols, 'Psychopaths and Moral Knowledge' (2007) 14 (2) *Philosophy, Psychiatry, Psychology* 157.

[69] *Ibid* 158.

[70] N Levy, 'Norms, Conventions and Psychopaths' in (2007) 14(2) *Philosophy, Psychiatry,*

*Psychology* 157.

[71] J Blair et al, *The Psychopath: Emotion and the Brain* (Blackwell, Oxford 2005), especially pp76-78 and pp53-56. Indeed, experiments suggest that non-human animals also exhibit various behavioural signs of distress when they perceive a member of the same species in distress.) J Masserman et al, '"Altruistic" Behaviour in Rhesus Monkeys' (1964) 121 *American Journal of Psychiatry* 584.

[72] J Blair et al, 'The Psychopathic Individual: A Lack of Responsiveness to Distress Cues?' (1997) 34 *Psychophysiology* 192; J Blair, 'Responsiveness to distress Cues in the Child with Psychopathic Tendencies' (1996) 27 *Personality and Individual Differences* 135.

[73] For more on the idea of psycho-neural pairing see T Honderich, *A Theory of Determinism: The Mind, Neuroscience and Life-Hopes* (OUP, New York 1988).

[74] Q Deeley et al, 'Facial Emotion Processing in Criminal Psychopathy' (2006) 189 *The British Journal of Psychiatry* 533.

[75] P Vuilleumier et al, 'Distant Influences of Amygdala Lesion on Visual Cortical Activation During Emotional Face Processing' (2004) 7 *Nature Neuroscience* 1271.

[76] J Blair et al, *The Psychopath: Emotion and the Brain* (Blackwell, Oxford 2005)

[77] J Tiihonen et al, 'Amygdaloid Volume Loss in Psychopathy' (2000) *Society for Neuroscience Abstracts* 2017.

[78] E.g. J Blair et al, 'The Psychopathic Individual: A Lack of Responsiveness to Distress Cues?' (1997) 34 *Psychophysiology* 192.

[79] These studies were carried out by Kent Kiehl and colleagues at the University of New Mexico. They have, at the time of writing, not yet been published, but are discussed by Walter Sinnott-Armstrong in: W Sinnott-Armstrong, 'Are Psychopaths Responsible?', Leverhulme Lecture delivered at The Oxford Uehiro Centre for Practical Ethics (2009)

<[http://www.sciencelive.org/component/option,com\\_mediadb/task,view/idstr,OX-tag\\_2009\\_05\\_04\\_160317\\_852\\_philfac\\_uehiro\\_podcasts/Itemid,96](http://www.sciencelive.org/component/option,com_mediadb/task,view/idstr,OX-tag_2009_05_04_160317_852_philfac_uehiro_podcasts/Itemid,96)>

[accessed 03.07.09]. (Henceforth: W Sinnott-Armstrong, 'Are Psychopaths Responsible?'). K Kiehl, 'Without Morals: The Cognitive Neuroscience of Psychopathy' in W Sinnott-Armstrong (ed), *Moral Psychology, Volume 3: The Neuroscience of Morality: Emotion, Brain Disorders, and Development* (MIT Press, 2008).

[80] See references in fn 25 and fn 26 below.

[81] R Saxe and N Kanwisher, 'People Thinking about Thinking People: The Role of the Temporo-Parietal Junction in "Theory of Mind"' (2003) 19 (4) *Neuroimage* 1835.

[82] Another interesting finding that emerged from these studies was that psychopaths hesitated longer than non-psychopaths before labelling an action as 'morally neutral'. One explanation for this is that the psychopaths thought that they would seem less fit for release if they labelled an action as morally neutral when in fact it was morally wrong. In contrast, non-psychopaths could see straight away that an action

(such as a doctor taking a person's blood pressure) was not morally wrong. W Sinnott-Armstrong, 'Are Psychopaths Responsible?'

[\[83\]](#) *Ibid* .

[\[84\]](#) R Blair, 'The Amygdala and Ventromedial Prefrontal Cortex in Morality and Psychopathy' (2007) 11 (9) *Trends in Cognitive Science* 387.

[\[85\]](#) W Sinnott-Armstrong, 'Are Psychopaths Responsible?' (although he notes that this data is not uncontroversial). For more on the role of the amygdala in moral reasoning see: Q Luo et al, 'The Neural Basis of Implicit Moral Attitude-An IAT Study Using Event-Related fMRI' (2006) 30 (4) *NeuroImage* 1449; J. Moll et al, 'The Neural Correlates of Moral Sensitivity: A Functional Magnetic Resonance Imaging Investigation of Basic and Moral Emotions' (2002) 22 *The Journal of Neuroscience* 2730; R Blair et al, 'Neuro-Cognitive Systems Involved in Morality' 9 (2006) *Philosophical Explorations* 13.