

The Insanity Defense

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15.1 INTRODUCTION

The insanity defense dates back to ancient times and it is a component of many criminal justice systems. It seems that many have been intrigued by this defense, one which touches upon a variety of enigmatic subjects, such as severe crimes, fairness, free will, retribution, and the reliability of psychiatric expert testimony (Meynen, 2016). In this chapter, key questions regarding the defense will be considered. Should insanity be part of our legal system? What should be the criterion for legal insanity? Can neuroscience help to assess a defendant's sanity? As legal insanity lies at the interface of law and psychiatry, we will have to consider both legal and psychiatric matters. Since we are interested in the foundations of legal insanity, we will have to take moral philosophy into account as well.

The outline of the chapter is as follows. In Section 15.2, we consider arguments pro and con the insanity defense as an element of our criminal law system. This implies addressing certain challenges of insanity assessments, such as the fact that it concerns a *past* mental state, and the fact that defendants may malingering (faking bad) or hide their symptoms (faking good). In Section 15.3, we will look in more detail at several legal standards for insanity such as the *M'Naghten Rule* and the *Model Penal Code* test. I will suggest that the criterion for insanity must include both an epistemic (knowledge) and a control component. In Section 15.4 we discuss the idea that the defense relies on the possibility that a mental illness may compromise a person's *free will*. We will conclude that the notion of "free will" provides a partial justification for legal insanity at best. In the fifth section, we concisely discuss the burden of proof, in particular the threshold of proof. In Section 15.6, the ethics of forensic psychiatric assessment and testimony about a defendant's insanity will be considered. Since the forensic psychiatric evaluation does not take place in a doctor–patient relationship, the ethical context is also different from the standard healthcare setting. In Section

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15.7 we examine whether new neuroscientific developments involving “mind reading” could support insanity evaluations in the future.¹

15.2 AN ELEMENT OF OUR LEGAL SYSTEM

In our everyday lives, we may well excuse people for their behavior because of a mental disorder. For instance, we may not blame our friend John for skipping our birthday party because he has social anxiety disorder. We may feel that given his extreme anxiety in social situations, his absence should be excused. In other words, exculpation because of mental illness is a normal societal phenomenon. The insanity defense reflects such a practice in criminal law.

The defense is often justified referring to *morality*. Slobogin, for instance, writes: “A person with severe mental disability, like the person who acts in self-defense or who causes harm accidentally, does not deserve the moral condemnation associated with criminal punishment.”² Yet, even though criminal law often reflects moral notions and intuitions, there are specific issues to consider within the context of criminal law, a domain of our society where the stakes tend to be (very) high.

One crucial issue is *evidence*. In everyday contexts of moral praise and blame, we do not (always) require specific proof. We informally *assume* that John’s social anxiety was the reason that he skipped the party. We don’t need actual or formal proof that he suffers from a social anxiety disorder and that it was this disorder that made him skip the party – we won’t ask for a doctor’s certificate. The criminal law context is different, however. Society, in general, won’t excuse a defendant charged with a serious crime, unless there is sufficient *proof* to support such an exculpation. Now, regarding the insanity defense, several qualms³ have been raised about the reliability of the evidence. In fact, *many* aspects of the insanity defense are (heavily) debated and legal insanity is presumably one of the most debated topics in criminal law.⁴ For heated discussions to occur, in general, two things are required: *difference of opinion* and *relevance* – without relevance, nobody would be bothered by the differences of views. Apparently, many people feel that insanity is relevant – and there is no shortage of differences of opinion either. We will consider some of the issues under debate.

The first worry concerns the fact that legal insanity relies on a psychiatric assessment made some time after the delinquent act took place. Since the insanity assessment focuses on the moment of the delinquent act, it is an examination in *retrospect*. Often, the legally relevant act has taken place weeks or even months ago.

¹ On topics discussed in this chapter, see also Meynen (2016, 2019, 2020a, and 2020b).

² Slobogin (2018). See also Morse, in a section entitled “The moral basis of the defence of legal insanity”: “The insanity defence is grounded in long-recognised legal and moral principles and on routinely admissible evidence” (Morse, 2016, p. 241).

³ For these and further qualms and responses to them see Meynen (2016).

⁴ Slobogin (2018) writes, “The insanity defense is perhaps the most widely discussed doctrine in criminal law.”

How reliable is information retrospectively gathered about such a past event? For instance, the defendant's condition at the moment of the examination may be completely different from his mental state at the time of the act. At the time of the act, he may have been delusional and under the influence of alcohol and drugs. At the moment of examination, however, he may be sober and his delusion may have disappeared. What does the psychiatric mental state examination *now* tell us about the defendant's state of mind at the time of the offense?

A second qualm concerns the fact that a defendant may not always be a reliable source of information. Apart from the possibility that the defendant is honestly mistaken or lacks specific memories about the event, there is the risk of malingering (faking symptoms of an illness) or faking good (hiding symptoms of a disease). The defendant may prefer a certain outcome of the psychiatric insanity assessment and deliberately provide information that, in his opinion, increases the chance of that desired outcome. The clear and present danger of faking on the part of the defendant could further decrease the reliability of insanity examinations.

A third argument against the insanity defense concerns the fear that as a result of the availability of the insanity defense, deterrence is diminished. Criminal law serves different goals, and one of them is deterrence – trying to keep people from committing crimes because of the fear of punishment. The insanity defense may convey the message that even if it has been proven that you committed a serious crime, you could still get away with it.

Yet, replies can be formulated to each of the three worries. First, as far as the retrospective nature of the assessment is concerned, we should note that criminal law generally deals with past events, and, more specifically, with mental states during or preceding those events. Criminal law is not only interested in a person's behavior, but also in issues like intent and ignorance, which refer to the realm of the mind. Was the harm deliberately inflicted, or was it merely accidental? These aren't minor issues in criminal law; on the contrary, these are core questions for juries and judges. And establishing these mind-related phenomena may even be more challenging than determining the presence of a severe mental illness at the time of the crime. According to Morse and Bonnie (2013, p. 493) "[t]he severe mental disorder that is necessary for practical support of an insanity defense is in most cases easier to prove than ordinary *mens rea*." In fact, the differences between negligence, recklessness, acting knowingly, or acting purposefully may well be subtler than the presence or absence of a mental illness at the time of the crime.

In addition, psychiatrists routinely perform assessments of past mental states and conditions. For instance, when diagnosing a major depressive disorder, it is important to exclude the possibility that the patient is suffering from bipolar disorder. In order to find out whether or not a patient has a bipolar disorder, a psychiatrist will ask about earlier manic and hypomanic states. Hypomanic states are episodes lasting at least four days, characterized by elevated mood, increased energy, and reduced need of sleep – but milder than manic episodes (American Psychiatric Association, 2013).

Patients may not even notice that they have such episodes, and psychiatrists sometimes have to *retrospectively* establish whether such episodes occurred by asking specific questions about the behavioral changes that may have occurred intermittently in the past. It is clinically important to find out, for at least two reasons. First, for people with bipolar disorder, another type of treatment is generally more appropriate: a mood stabilizer (instead of an antidepressant). Second, a person with bipolar disorder may not respond well to antidepressants; this type of medication may induce a manic episode. This is just one example of a backward-looking psychiatric assessments. Still, we could object to this reply that the assessment of insanity concerns a rather short period of time in the past, for example, last November 27th, around 23:00 h, the time the crime was committed. Was the person psychotic at *that* moment in time? This may be more difficult than retrospectively assessing a period of four days or more.

A response to the second objection to the insanity defense – that faking is a danger – is that psychiatrists are well aware of this risk, and that they actively try to detect signs of faking or malingering. For instance, they are on the alert regarding inconsistencies in the defendant's account, but also regarding inconsistencies between the account and other information sources, such as police reports and medical records. In addition, tools have been developed to assess the risk of malingering in an individual, the SIMS (Structured Inventory of Malingered Symptomatology) is an example (van Impelen, Merckelbach, Jelicic, & Merten, 2014). Also, in some cases, neuroimaging may provide additional information. An example is a Dutch attempted extortion case. On the *Judicial System Netherlands* website, we read about the defendant, an elderly man:

Several behavioral experts have assessed the defendant. They conclude that the defendant suffers from frontotemporal dementia, behavioral subtype. As a result of this condition, according to the experts, the defendant had hardly any moral awareness of his actions. The defendant was guided by – childlike – sentimentality. He did not realize the consequences of his actions and he lacked empathy for the victims. It is very unlikely that the defendant can *fake* his brain disorder, this is *evident from* the MRI scan and PET scan that were shown during the session and assessment by the behavioral experts.⁵

His criminal responsibility was considered to be strongly reduced.⁶ Clearly, neuroscience will not always be helpful in corroborating findings relevant for the question of legal insanity (see Section 15.7).

⁵ Emphasis added, own translation. www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Rechtbanken/Rechtbank-Midden-Nederland/Nieuws/Paginas/Veroordeling-voor-poging-afpersing-familie-De-Mol.aspx For the case itself: ECLI:NL:RBMNE:2015:4866

⁶ Instead of the dichotomy sanity/insanity, at the time of this verdict, five grades of criminal responsibility/legal insanity were in use in the Netherlands: responsible, somewhat diminished responsibility, diminished responsibility, strongly diminished responsibility, complete legal insanity (Meynen, 2016).

There is no denying that psychiatric (and psychological) assessment often strongly relies on a patient's or defendant's own account (Meynen, 2020b).⁷ As Linden writes:

Psychiatry is the oddball of medical disciplines because it has almost no tests that positively aid the diagnosis of a particular disease. Where diagnostic tests are applied, such as neuroimaging, these normally serve to exclude other, "organic" causes for the reported symptoms and observed behavioural abnormalities. Although behavioural changes feature prominently in the diagnosis of some mental disorders, particularly those with childhood onset (autism, attention deficit/hyperactivity disorder, conduct disorder), most classic psychiatric diseases are largely diagnosed on the basis of patients' self-report. (Linden, 2012)

Suppose that a defendant states that he heard a voice (an auditory hallucination) commanding him to commit the crime he is charged with, and that the command could not be disobeyed. Hearing voices is a quite common psychopathological phenomenon, and we know that in some cases these voices may order the patient to perform certain actions. In a minority of these cases, the patient cannot but obey such an order. In a small percentage of these cases, finally, obeying the order constitutes a crime. But how do we know that *this* defendant actually heard such a commanding voice? The *defendant* must inform the psychiatrist about the occurrence at the time of the crime. If another person would also have heard that same voice, then, by definition, it would no longer be a hallucination. And, crucially, how does the psychiatrist know that the voice's command was irresistible? Again, basically, the defendant must tell him. Clearly, there may be some corroborating evidence, such as documentation from psychiatrists who had treated him earlier, which might show that the patient sometimes hears voices, or a witness, but the medical record doesn't tell whether a voice was heard at the time of the crime. There may be a witness who heard the patient talking to someone, while there was nobody there, which can be considered indicative of the presence of a voice to which the defendant was talking aloud. But no other person can testify about the force of the actual voice – if heard – at the moment of the crime. This is just to illustrate that, to a large extent, the psychiatrist has to rely on the defendant's own account. The patient's own account, however, need not be reliable. As already mentioned, faking, malingering are dangers. As Resnick and Knoll write, "command auditory hallucinations are easy to fabricate" (Resnick & Knoll, 2005).

One might ask at this point: can one ever be completely sure about the defendant's mental state as far as it is relevant to an insanity plea? Well, we may not even have to answer that question, because criminal law – and legal insanity only exists within the realm of criminal law – does *not require* that insanity be established with absolute certainty. Many legal systems define a specific threshold of proof for insanity. In the United States this may be "clear and convincing evidence" or "by a preponderance of the

⁷ Even though, in many cases, additional evidence is available that the behavioral expert should take into account as well. See on this issue and what follows also Meynen (2019).

evidence.”⁸ Suppose the latter is the case, then the evidence supporting the insanity plea has to be stronger than the evidence indicating that the person was sane. Such a threshold of proof is far from absolute certainty. This means that one can still support legal insanity as an element of a legal system, even if one feels that 100 percent certainty about this issue is impossible.

15.3 CRITERIA FOR LEGAL INSANITY

In many legal systems, a criterion for legal insanity has been formulated. In this section we discuss three types of them, and we will also consider a jurisdiction in which a criterion for legal insanity has not been defined (the Netherlands).

15.3.1 *M’Naghten and the Model Penal Code Test*

The most influential legal criterion or standard in the Western world is the M’Naghten Rule:

At the time of committing the act, the party accused was laboring 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 what he was doing was wrong.⁹

This criterion has, in practice, the following components:¹⁰

- 1) the presence of a mental disorder . . .
- 2) resulting in . . .
- 3) not knowing *what* the defendant was doing or not knowing that what he was doing was *wrong*.

So, if the person knows what he is doing and that it is wrong, an insanity defense cannot be successful. What counts is the influence of a disorder on the defendant’s knowledge. This is not unreasonable, in the sense that ignorance is often an exculpatory factor in criminal law – just as long as the lack of knowledge is not culpable.

As said, many aspects of the insanity defense are under debate. Now which are important topics regarding the M’Naghten Rule? The first¹¹ topic is that many feel that it is too restrictive. Since Aristotle, two issues are taken to be relevant to

⁸ See also Scott and Resnick (2016) on expert testimony in the United States: “The psychiatrist will then be asked to describe his examination of the patient. He will be asked whether he has formed an opinion with reasonable medical certainty regarding the legal issue. The term ‘reasonable medical certainty’ simply means that there is a 51% or greater probability that a conclusion is correct, in most states.”

⁹ Or M’Naghten Rules (plural). M’Naghten’s Case, 10 Cl. & Fin. 200, 8 Eng. Rep. 718 (H.L. 1843).

¹⁰ Slightly different from Meynen (2016, p. 15).

¹¹ For a discussion of the two issues that are discussed in this section (control and wrongness), see also Meynen (2020a).

responsibility and blameworthiness: peoples' knowledge *and* their control. In criminal law, if a person knows that what she is doing is harmful to another person – and therefore wrong – but she couldn't help doing it, for example, because another person forced her at gunpoint to do it, she may well be exculpated. The reason is that she was *coerced* to act as she did, and, in that sense, not in control. M'Naghten, however, only reflects the epistemic component, not the control (or coercion) element. This would not be a problem if mental illnesses could not affect a person's control, but they can.

Arguably, the best example of such an influence on control is the already mentioned type of command hallucination: a voice, which cannot be disobeyed, orders the person to act. The person may well know that what the voice tells her to do is wrong, but she cannot help but comply. Now should we hold a defendant who could not act otherwise than she did because of a psychopathological phenomenon (the occurrence of which is beyond her control) criminally responsible for the act? Apparently, many jurisdictions feel that she should be exculpated – considered legally insane – because these jurisdictions have an insanity standard that, often besides an epistemic element, includes a control or “volitional” prong (Simon & Ahn-Redding, 2006). The Model Penal Code (American Law Institute 1985) test, used in the United States,¹² is an example:

a person is not responsible for criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity either to appreciate the criminality (wrongfulness) of his conduct or to conform his conduct to the requirements of the law.

The inability to conform one's conduct to the requirements of the law is the MPC's formulation of the control element. Another example is Article 88 of the Italian Penal Code:

A person who committed a criminal act is not considered responsible if at the time of the commission of the criminal act he was incapable of *understanding* the significance of his act or *control* his conduct, by reason of insanity. (Ferracuti & Roma, 2008, p. 84, emphasis added)

In China, the two components are reflected in article 18 of the criminal law:

A mentally ill person who causes dangerous consequences at a time when he is *unable to recognize or unable to control* his own conduct is not to bear criminal responsibility after being established through accreditation of legal procedures; but his family or guardian shall be ordered to subject him to strict surveillance and arrange for his medical treatment. When necessary, he will be given compulsory medical treatment by the government. (Zhao & Ferguson, 2013, p. 639, emphasis added)

¹² Even though most US states have M'Naghten, Scott and Resnick (2016).

Yet in law, it is not only a question of whether a person who acted on a commanding voice should be exculpated in theory; a relevant issue is also whether such a control-problem can be reliably established in a court of law. Morse does not believe that control issues can be sufficiently reliably assessed, at least not in the realm of criminal law. He writes (1985, p. 817):

There appears to be a *prima facie* case for a compulsion branch of the insanity defense, but is it persuasive and would the test be workable? If or to what degree a person's desire or impulse to act was controllable is not determinable: there is no scientific test to judge whether an impulse was irresistible or simply not resisted. At best, we may develop a phenomenological account of the defendant's subjective state of mind that will permit a common sense assessment of how much compulsion existed.

Again, we are confronted with an essential tenet of criminal law compared to morality: the emphasis on the reliability of the *evidence*. Even if from a moral (theoretical) perspective, control would be relevant, evidentiary worries may still hinder the inclusion of a control prong in an insanity standard.

Interestingly, Morse writes that “[a]t best, we may develop a phenomenological account of the defendant's subjective state of mind that will permit a common sense assessment of how much compulsion existed.” But how different is that from establishing a delusion from which a defendant may suffer? A delusion is also a subjective phenomenon. In fact, almost all core symptoms of mental illness are subjective phenomena, to which we have only indirect access. We cannot hear the commanding voice as we cannot see the delusion or its content. Elsewhere, I have tried to explain why the control issue may be harder to establish, arguing that a crucial issue is stability over time (Meynen, 2016). Delusions tend to be more or less stable over time, while control problems tend to come and go. For example, when a person had the delusion that the CIA was persecuting her on Tuesday and on Thursday, she most probably had the same delusion on Wednesday, 3:26 p.m. (the moment of the crime). But a voice may be heard on Tuesday 1:23 p.m. and on Thursday 8:27 a.m. – without having been heard on Wednesday at all. More precisely, a voice may be there on Tuesday and Thursday and its command may have been easily resistible, but on Friday, the command may be irresistible. Control problems tend to fluctuate. So, regarding control issues, there is often a discontinuity over time. Still, even though in general control assessments may be more challenging, in my view, in principle, it is possible to reach the burden of proof (at least on a balance of probabilities) that the person acted because of an auditory hallucination.

There is another issue regarding the M’Naghten Rule, which does not concern the absence of an element, but rather its interpretation. It concerns the last word of the Rule: *wrong*. How should the wrongness be understood? Basically, there are two approaches: the first is the interpretation as *legal* wrongfulness, the second is *moral*

wrongfulness.¹³ The first interpretation is, in practice, quite strict. Generally, the legal wrongfulness will work in cases of delusionally presumed *self-defense*. For instance, Peter has the delusion that his longtime friend, Tom, is involved in a conspiracy against him and that he is going to attack him any moment. When Peter notices that his friend's hand goes into his pocket, he is certain that this is the moment that Tom will strike, and Peter immediately decides that, to save his own life, he should attack first. Peter seriously harms his longtime friend Tom. Clearly, Peter honestly believed that he was acting in self-defense and that, therefore, his action was *legally* justified – self-defense being a justification. M'Naghten works well in this case. Note that the moral interpretation works as well: Peter believes that his action is morally justified, too, as he acted to defend himself against an imminent attack (self-defense is recognized as a justification both in the moral and legal realm).

But there is another type of cases in which the legal interpretation does not work well. A mother suffers from a postpartum psychosis and she delusionally believes that her newborn baby will go to hell unless she kills her (which will make her go to heaven). The mother knows that killing one's child constitutes a crime, but her delusion about her child's eternal suffering in hell “overrides” the importance of legal considerations. According to the legal interpretation of “wrong,” this mother is not insane: she knows what she is doing (killing her child) and knows this is legally wrong. *Morally*, however, she honestly believes she is doing the right thing: saving her child. Cases in which a mother kills her own child because of a delusion are amongst the most tragic insanity cases. These mothers may still know that killing one's child constitutes a crime. But they may also feel that their act was not morally wrong, but, instead, morally required. The type of cases in which the legal interpretation does not “work,” but the moral interpretation does, tend to involve God, Satan, demons, etcetera – in general, the supernatural.¹⁴ In such cases, in my view, the insanity defense should also be possible.

15.3.2 *Psychosis at the Time of the Crime*

Arguably the most well-known recent insanity case – even though the defendant was eventually considered sane – is the Norwegian Breivik case. On July 22, 2011, Anders Breivik killed 77 people, amongst whom many were youngsters. Breivik's sanity was evaluated by two pairs of psychiatrists (Melle, 2013). The first pair concluded that he was psychotic at the time of the crime and suffering from schizophrenia, specifically of the paranoid type. The second pair, however, concluded that he was not psychotic

¹³ Morse favors the moral interpretation: “To the extent that an outcome might turn on moral versus legal wrong, the former should be preferred because it is more action guiding and provides a better fit with the underlying rationale for the defence” (Morse, 2016).

¹⁴ See on moral vs. legal wrongness also Lighthart, Kooijmans, and Meynen (2018) and Meynen (2020a).

at the time of crime. The presence of psychosis was crucial for insanity in Norway, as article 44 Norwegian General Civil Penal Code §44 stated,

A person who was psychotic or unconscious at the time of committing the act shall not be liable to a penalty. The same applies to a person who at the time of committing the act was mentally retarded to a high degree.¹⁵

A peculiar aspect of this insanity criterion is that the mere presence of a psychosis at the time of the crime is sufficient for legal insanity.¹⁶ No *influence* – either in terms of knowledge or control – has been specified. In addition, a *specific type* of disorder is required. Whereas M’Naghten needs a “disease of the mind” – which could, in principle, be any disease of the mind – this criterion is very precise. The type of disorder, psychosis, does not seem to be unreasonable. According to Slobogin (2017), “the typical mental disorder associated with insanity is psychosis.” So, if one would have to select one type of disorder for the insanity defense, the best option is most probably psychotic illness.

Meanwhile, the question is whether it is justified to restrict the insanity defense merely to psychotic illness. Couldn’t other serious disorders – depression, a manic episode, dementia – lead to situations in which a person is no longer responsible? That is one type of concern: isn’t this standard too restrictive? The other concern is that this standard may, at the same time, be too broad and inclusive, because *all* people who are psychotic at the time of the crime are deemed legally insane. Is that justified? Some people have chronic psychotic features; is it reasonable to never hold such a person responsible for any crime he or she might commit? That doesn’t appear to be the case. There may well be choices that the person can make more or less “independent” of the illness. In fact, never considering psychotic people responsible for crimes committed could lead to stigmatization of psychotic people as “irresponsible” fellow citizens. If they cannot take responsibility for their criminal actions, one might start to wonder, should we still consider them autonomous decision makers in other areas of life? For instance, are they still competent to make decisions about their treatment? According to Welie and Welie (2001, p. 129, emphasis added), “Competence is the patient’s ability to make a choice about the various medical interventions offered to her by the caregiver, and to bear *accountability* for that choice.” So, people may ask: If psychotic people are never held accountable in the court of (criminal) law, should we still consider them competent to make healthcare decisions?

Yet, there is an evidentiary advantage provided by this legal standard. As we have seen, it may be really challenging to assess the impact of a disorder on a person’s behavioral control. How to establish the exact impact of a voice on a person’s

¹⁵ Quote taken from the English translation of the Breivik verdict, Lovdata TOSLO-2011-188627-24E. Notably, the Norwegian criterion for insanity has recently changed; see Gröning et al. (2020) for a discussion. Psychosis is no longer central.

¹⁶ On the Norwegian test see also J. Bijlsma (2018).

behavior? A psychosis-standard does not require the establishment of such a link; psychiatrists can just determine the presence of a psychotic disorder (with hallucinations), without having to specify its exact influence on a particular action.

15.3.3 No Criterion

Even though many jurisdictions have specified the criteria for insanity, not all have done so. In the Netherlands, legal insanity is a component of the criminal justice system, but no standard has been specified (Bijlsma, 2016). More precisely, Dutch criminal law stipulates that: “Anyone who commits an offence for which he cannot be held responsible by reason of the mental disorder, psychogeriatric condition, or intellectual disability, is not criminally liable” (Kooijmans & Meynen, 2017, adapted because terminology has recently changed). This article merely states that *if* a person is not responsible for an offense due to a mental disorder, he *cannot be punished*. In forensic psychiatric practice this leads to a situation in which the evaluators have to build their own arguments as to why a defendant should – or should not – be considered legally insane (in the Netherlands, experts are asked to provide explicit advice regarding the issue of legal insanity). In other words, behavioral experts have to interpret the legal concept – insanity – without legal guidance. Also, the judges lack such legal guidance, and, as Bijlsma has convincingly shown, this has resulted in diverging interpretations of the same concept in legal practice (Bijlsma, 2016).

Recently, a Dutch Court of Appeal, in the absence of a clear legal criterion, formulated its own criterion. Part of it was that “it must be plausible that the defendant’s actions were not (partly) motivated by real, non-pathological motives.” In other words, the actions should be purely based on pathological motives. This, however, does not appear to be a helpful criterion (Lighthart et al., 2018). For instance, the mother who tries to save her newborn baby from eternal suffering is, at least in part, motivated by love for her child (see Section 15.3.1). In fact, it is the nonpathological love for her baby *combined with* the pathological phenomenon (a delusion about eternal suffering if the child is not killed) that results in the tragedy. Also, in cases of delusional self-defense (see Section 15.3.1) the criterion offered by this Court of Appeal is unhelpful. A person who defends himself against an imagined (delusion-based) attacker acts partially on nonpathological motives: self-defense is not a pathological phenomenon at all. So, requiring merely pathological motives for a successful insanity defense is not a helpful and realistic criterion for legal insanity. In fact, one could argue that not having a clear criterion for legal insanity may lead to courts that – understandably – improvise to define a criterion. This may not only result in inequality of justice, but also in suboptimal criteria for insanity.

It has been argued that a Dutch criterion has to be developed (Bijlsma, 2016; Lighthart et al., 2018). However, opinions differ as to the question of who should develop such a criterion. Bijlsma suggests that the Dutch Supreme Court could

define the standard, while others have argued that, given its importance, the legislator – parliament – should take responsibility for defining the criterion for legal insanity (Lighthart et al., 2018).

Finally, I briefly mention an issue related to the standard, which concerns the possibility of *grades* of responsibility. Often, the dichotomy of sane versus insane is employed: does the criterion apply, or doesn't it? Yet some jurisdictions use a grade in the middle: diminished or partial responsibility, and thus the criterion may be partially fulfilled. For instance, several European states have diminished responsibility, and thus a graded concept (Salize & Dressing, 2005, p. 62). The Netherlands, until recently, had no fewer than five grades of responsibility (see footnote 6). Recently, Bijlsma and Meynen have argued that whether or not diminished responsibility is useful depends on the characteristics of a legal system (Bijlsma & Meynen, 2018). For instance, in the Netherlands the judges have considerable freedom regarding the sentence and the issues they may or may not take into account, and the category “diminished responsibility” does not really add to or limit the possibilities. More specifically, judges may take the influence of a mental disorder into account in their sentencing irrespective of the “label” of diminished responsibility. Yet, in other legal systems, the formal category may be useful, and in such jurisdictions it may, therefore, be advisable to add such a legal category.

15.4 FREE WILL

In Section 15.3, we considered several insanity standards, and, as it became clear, they differ across jurisdictions. But we may also ask on a conceptual level: Why is it that mental disorders undermine a person's criminal responsibility in the first place? In other words, what justifies the insanity defense? Many have argued that the justification is that such illnesses may compromise free will.¹⁷ For instance, Allan (2018) writes: “In many legal jurisdictions, the insanity defense applies when it is judged that the accused is dispossessed of their free will.” Apparently, the underlying assumption is that free will is foundational for criminal responsibility (Parmigiani et al., 2017; Wright, 2014), and that mental disorders affect this basis for responsibility.

The problem with this justification of the insanity defense is that it makes it vulnerable to skepticism about free will. Free will is one of the most frequently discussed topics in the history of philosophy (Kane, 1998). The main issue concerns the question of the compatibility of free will and determinism. For various reasons, people believe – and have believed – that our world or cosmos is determined. Determinism, broadly conceived, is the idea that the future is fixed. One reason people have felt that the future was fixed was because of divine foreknowledge: If God knows everything that will happen in the future, every event or action is

¹⁷ On what follows see also Meynen (2016) and Meynen (2020a).

determined by his knowledge (Kane, 2005). Can people be truly free when their actions are determined in this way? Another form of determinism concerns the laws of physics. If everything that happens is governed by the current state of events combined with the laws of physics, then, it appears, the future is fixed. Even if we cannot predict the future, because of the complexity of the current state of the world and its laws, on a deeper level, it unfolds in a predetermined cause-and-effect manner.

More recently, neurobiological experiments have fueled the debate on free will, particularly the Libet experiment (Libet et al., 1983). In brief, Libet and his colleagues reported that about half a second before a person becomes aware of the urge or intention to perform a motor action (e.g., flexing one's wrist), a characteristic electrophysiological signal can be detected, the "readiness potential" (Libet, 1999). The corollary was that the brain was first, and that consciousness was only following the preceding brain activity; at least that is how some interpreted the findings (Spence, 1996; Wegner, 2002). The debate on the experiment, and how it should be interpreted, also in light of free will, continues (Radder & Meynen, 2013; Mele, 2014).

In his 2007 paper, "The Non-Problem of Free Will in Forensic Psychiatry and Psychology," Stephen Morse has taken a strong position against the relevance of free will for criminal responsibility and insanity in particular (Morse, 2007). He writes: "Solving the free will problem would have profound implications for responsibility doctrines and practices, but, at present, the problem plays no proper role in forensic practice or theory because this ability or its lack is not a criterion of any civil or criminal law doctrine." Yet, not everybody would agree: many have argued for the relevance of free will to criminal responsibility in general, and legal insanity in particular; see for example, Wright (2014).

Still, in none of the standards discussed above are freedom or "free will" mentioned. Knowledge, control, and psychosis are part of the standards discussed, but not free will. Does that imply that it is irrelevant? Free will has to do with decisions about courses of action, not with your knowledge. So, for M'Naghten, free will doesn't seem to be relevant. However, for the control prong, things are different. Let us have a look at the *Stanford Encyclopedia of Philosophy* on free will, where O'Connor writes (O'Connor, 2018; substantive revision, first published 2002):

The term "free will" has emerged over the past two millennia as the canonical designator for a significant kind of *control* over one's actions.

This quote shows that control and free will are interconnected. So, a control prong in an insanity defense can at least be considered as *related* to free will. Still, we should realize that this quote also states that free will is a *specific kind* of control. This means that the problems surrounding free will need not transpire to all kinds of control. In fact, the concept of control is much less metaphysically contested than

the notion of free will. That is not the same as stating that control is unproblematic, which it isn't, but it is definitely less a topic of philosophical controversy than free will.

15.5 BURDEN OF PROOF

We already addressed the issue of the burden of proof, in fact the threshold of proof: the higher the threshold, the more difficult to prove insanity. We now consider in some more detail the burden of proof and related matters: what should be the threshold, who should bear the burden, and who should establish the disorder?

What should be the *threshold* of proof? "Beyond reasonable doubt" is most probably too high for legal insanity. Should it be a preponderance of the evidence, or, a bit higher, clear and convincing evidence? The latter two seem to provide the best options given the nature of the assessment and the nature of the defense. Bijlsma and Meynen recently argued that, in any case, it is important to be clear about the threshold. In the Netherlands, no distinction is made between "clear and convincing evidence" and "preponderance of the evidence." The general term "plausible" (*aannemelijk*) is used, but it is not clear what level of proof that term refers to exactly. So, it is not only important to determine a threshold, but also important to be clear about what the threshold entails. Obviously, determining the threshold, it is important to balance several issues, which I mention briefly. First, the interest of the defendant, who should not be held accountable for crimes committed as a result of a mental disorder. On the other hand, there are victims, who should be able to accept the outcome when a person is considered legally insane and therefore won't be sent to prison. Thirdly, there is society, and the verdict should be acceptable to society as well.¹⁸

Another topic regards the question of who *bears* the burden of proof. In many Anglo-American jurisdictions, insanity is an affirmative defense. The defendant has to provide the required evidence of insanity. An argument against this is that the chances of a successful defense may be determined to a considerable extent by the defendant's financial resources: is he able to have a good defense lawyer who has the means to build a strong case? In other jurisdictions, the burden is, or has been, on the prosecution (Simon & Ahn-Redding, 2006). Meanwhile, in other systems, the evaluation may be court ordered, and the psychiatrist may immediately report to the judges.

A related issue regarding proof is the following: Who should *establish* the presence of a disorder? Legal insanity predates psychiatry and psychology as academic disciplines. So, long before psychiatrists existed and could inform the court, judgments about legal insanity were made. A legal criterion that was used in the remote past in England was

¹⁸ Regarding the threshold, there may be significant differences resulting from the structure of the legal system. In particular, one could argue, the topic is crucial for the common law with their jury system, since the standards must be explicitly stated when an unprofessional jury makes the decision.

the wild beast test. In *Rex v. Arnold* (1724), Justice Tracy defined insanity as follows: a defendant “must be a man that is totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, than a brute, or a wild beast; such a one is never the object of punishment” (Robinson, 1996, p. 134). Remarkably, no reference is made to illness or diseases of the mind. The standard refers to a lack of understanding and memory, but not to what could be considered its “source”: mental pathology. Rather, it refers to nonmedical categories such as infants, brutes, and wild beasts. Nowadays, legal insanity standards generally refer to illness. If such a reference is made, then it is only natural that doctors and/or psychologists assist the court in reaching a decision. In fact, it is common practice that behavioral experts, particularly psychiatrists, inform or advise the court about the presence of mental conditions and, depending on the jurisdiction, about their nature and influence on a person’s behavior. In case the experts disagree, which is not uncommon, the jury or the court will have to choose whom to follow. Yet, the decision is based on the expert’s testimony. Still, Morse (2011b, p. 894, references omitted) has stated:

The criminal law can, but need not, turn to scientific or clinical definitions of mental abnormality as legal criteria when promulgating mental health laws. The Supreme Court has reiterated on numerous occasions that there is substantial dispute within the mental health professions about diagnoses, that psychiatry is not an exact science, and that the law is not bound by extra-legal professional criteria. The law often uses technical terms, such as “mental disorder,” or semi-technical qualifiers, such as “severe,” but non-technical terms, such as “mental abnormality,” have also been approved. Legal criteria are adopted to answer legal questions. As long as they plausibly do so, they will be approved even if they are not psychiatric or psychological criteria.

Yet, we have to remind ourselves that Morse is writing about the United States. In principle, the division of tasks that I favor is that behavioral experts establish the presence and influence of a disorder based on their medical/psychological expertise, while the court or jury decides whether the (further) criteria for legal insanity have been met (see also Kooijmans & Meynen, 2017).

15.6 THE ETHICS OF THE EXPERT

Some have taken strong, critical positions on the ethics of giving forensic psychiatric testimony in the courtroom. Well known is Harvard law professor Alan A. Stone’s criticism regarding such testimony, first published in 1984, based on a lecture delivered at the Thirteenth Annual Meeting of the American Academy of Psychiatry and the Law, 1982, and later published in 2008. He writes:

I am not a forensic psychiatrist. What has kept me out of the courtroom is my concern about the ethical boundaries of forensic psychiatry. Let me state what I think the ethical boundary problems are.

First, there is the basic boundary question. Does psychiatry have anything true to say that the courts should listen to?

Second, there is the risk that one will go too far and twist the rules of justice and fairness to help the patient.

Third, there is the opposite risk that one will deceive the patient in order to serve justice and fairness.

Fourth, there is the danger that one will prostitute the profession, as one is alternately seduced by the power of the adversarial system and assaulted by it.

Finally, as one struggles with these four issues – Does one have something true to say? Is one twisting justice? Is one deceiving the patient? Is one prostituting the profession? – there is the additional problem: forensic psychiatrists are without any clear guidelines as to what is proper and ethical, at least as far as I can see.

These are harsh words, but it is good to take them into account, even though they were (first) uttered more than three decades ago – and many things have changed (guidelines, of course, have been developed) since then. Still, basic points of concern remain. First, the question of to what extent psychiatry is relevant for the law. In my view, it is important that forensic psychiatrists continuously reflect on the relevance, value, and appropriateness of their statements – and on how they are, or can be, interpreted and used in the legal realm. For instance, what exactly do forensic psychiatrists know about the relationship between specific mental disorders and crime or risk of recidivism? How should they interpret scientific group level information to the individual defendant? How do they deal with the fact that the defendant's statements may not be truthful and trustworthy? Meanwhile, ultimately, it is the criminal justice system that determines the relevance of psychiatry for the law. Judges, prosecutors, and attorneys will *ask* for psychiatric assistance at those points where they believe forensic testimony can add something. But that does not mean psychiatrists have to answer all of their questions without further reflection. Crucially, behavioral experts have to think carefully about the kinds of answers they provide: do they fall in their area of expertise?

The next two questions posed by Stone are always important to keep in mind: is one serving the defendant (too much) or is one going too far to obtain the kind of information that will please the lawyer, judge or prosecution? It is essential to realize that the relationship with the defendant is not equivalent to a therapeutic (doctor–patient) relationship. This means that one cannot “serve” the interests of a defendant as one would perhaps try to benefit a patient. It is more like an “examiner–examinee” relationship (Gutheil, 2005, p. 346). The unusual nature of the relationship is also addressed in Eastman et al. (2012, p. 248):

In medico-legal work, forensic psychiatrists need to be thoughtful about the type of relationship they have with individuals they evaluate for legal proceedings. Some professionals argue that these are non-therapeutic relationships which are necessary

for the proper administration of justice; others argue that doctors cannot have non-therapeutic relationships when they are in professional roles . . .

The latter, to me, seems to go too far, but clearly, at least in some cases, psychiatrists may experience a tension between the two roles.

In Stone's quote, the risk of "prostituting the profession" is linked to the adversarial system. And that may seem justified: the "battle of experts" is usually linked to the adversarial context.¹⁹ Yet, pressure to cross professional boundaries may also exist in inquisitorial systems.

The ethicist and psychiatrist Paul Appelbaum, partly in response to Stone's criticism of the ethics of forensic psychiatric evaluations, has defined the basic tenets of the ethics of forensic psychiatric testimony (Appelbaum, 1997). To begin with, he acknowledges and stresses that, from a medical ethics point of view, forensic psychiatric experts were in a peculiar situation:

The bedrock principles of beneficence and nonmaleficence, to which medicine had looked historically, were inapplicable outside the clinical realm. Without these compass points to steer by, forensic psychiatry was condemned to wander in an ethical wasteland, permanently bereft of moral legitimacy.

In other words, forensic psychiatric testimony cannot derive its orientation from the standard bioethical framework, since it is not a doctor–patient relationship in which the four principles of medical ethics apply. These are respect for autonomy, beneficence, nonmaleficence, and justice (Beauchamp & Childress, 2013). The expert's role has also immediate implications for confidentiality, a basic norm in healthcare (Roberts, 2016). In fact, a psychiatrist should inform the examinee that the findings are not confidential and may be shared with judges and jury (Gutheil, 2005). In the courtroom, the media may be present, and information may end up in daily newspapers or television shows. So, in this respect, the context is really different from the standard doctor–patient ethics.

Appelbaum provides guidance through the "ethical wasteland," identifying two overarching principles: truth telling and respect for persons. Both are not alien to the normal medical profession – truth telling is paramount to respecting autonomy and informed consent (Gillon, 1994), while respect is a basic attitude – but here, in the context of forensic testimony, they become, basically, *the* guiding principles, in Appelbaum's view. This makes it clear that the forensic psychiatrist's task when evaluating a defendant's legal insanity is a special one. Not only because of the required expertise, the setting, but also because of the ethical landscape.

¹⁹ According to Van der Wolf and Van Marle, "in an adversarial system, expert witnesses – including in forensic psychiatry – are usually appointed by the parties, which could lead to a battle of the experts, while in an inquisitorial system, they are generally appointed by the court. For example, in England, as one of the mentioned solutions for the battle of the experts, a Law Commission advised to have a third expert appointed by the court" (Van der Wolf & Van Marle, 2018, p. 36).

According to Appelbaum, truth telling also implies that the psychiatrist is up to date with the literature, and does not overstate certain results. In addition, it entails respecting the boundaries of one's expertise, which, according to Appelbaum, has a practical implication for expressing one's opinion in insanity cases. He writes (Appelbaum, 2008, p. 197):

Part of the problem here relates to the proclivity of forensic psychiatrists and other experts to offer "ultimate issue" testimony – that is, to attempt to answer legal/moral questions like whether a defendant is criminally responsible, as opposed merely to presenting descriptive information about a defendant's mental state. With no special expertise in addressing legal or moral questions, psychiatrists who make such judgments are treading on morally perilous terrain. Indeed, I have long believed that psychiatrists should avoid ultimate issue testimony, focusing their attention on descriptions of mental and functional states that they are much better qualified to address. This is not always a simple matter, since some courts will insist on such testimony as a criterion of admissibility, and many attorneys seek experts who will address the ultimate issue.

I believe that this is helpful advice. Ideally, as I already argued in the previous section, the psychiatrist establishes the presence of a disorder (and its impact) while the court or jury determines its implications for criminal responsibility and insanity.

15.7 NEUROSCIENCE AND THE FUTURE OF INSANITY ASSESSMENTS

As discussed in Section 15.2, neuroimaging is sometimes used to inform the court regarding a defendant's insanity. However, there is a debate about its validity, added value, and legal relevance (see Morse, 2006; Catley, 2016; Moratti & Patterson, 2016; Meynen, 2018b).

Neuroimaging may provide reliable information about the presence of a tumor (Burns & Swerdlow, 2003), brain trauma, some neurodevelopmental conditions, and neurodegenerative disease, such as dementia. Meanwhile, in clinical practice, psychiatric disorders such as psychotic illnesses, depression, bipolar disorder, autism, and post-traumatic stress disorder (PTSD), cannot be established using brain imaging. In other words, even after decades of neuroscientific research, there are still no neurobiological assessment tools for clinical psychiatric practice for these disorders. Therefore, in legal practice, in many cases, neuroimaging won't be able to add relevant information regarding the presence of a mental disorder within the context of an insanity defense. And, generally, we should not be overenthusiastic or naïve about the value of neuroimaging for insanity assessments (Scarpazza et al., 2018). Still, in certain cases, such as the extortion case described in Section 15.2, where the defendant turned out to suffer from fronto-temporal dementia, neuroimaging is valuable and relevant to establishing a diagnosis and, ultimately, to the question of criminal responsibility. But neuroimaging alone, without further information, will

often provide very little information; it has to be judged given other findings and data.

As far as brain function is concerned, neuropsychological assessment can make a valuable contribution as it can help to provide *functional* context to the *structural* findings on a brain scan.²⁰ For instance, neuropsychological evaluation may show that a defendant's executive functions have deteriorated, which could be due to pathological changes in the frontal lobe. If the brain scan shows a frontal pathology that matches these neuropsychological findings, this corroborates the conclusion that brain pathology is not only present but may have consequences for the defendant's behavior. As a rule of thumb, I suggest that neuroimaging should be combined with neuropsychological assessment to get a clearer picture of how brain changes relate to actual functioning (Meynen, 2018b).

In the remainder of this section, I will briefly focus on new neurotechniques that "read" minds. We will consider their potential value for insanity assessments.²¹

The term "mind reading" may require some clarification. First of all, "mind reading" is an everyday phenomenon: humans constantly try to read each other's minds, using different kinds of information such as facial expressions, gestures, and a person's words (Greely, 2013; Meynen, 2018a). Such "reading" of other people's minds enables us "to predict, explain, mold, and manipulate each other's behaviour."²² I will understand neuroscientific mind reading as referring to "mind-reading"²³ procedures that rely to a nontrivial extent on brain-derived data.²⁴ So, the procedure has to involve neurotechniques (e.g., fMRI or EEG) but it may be combined with other technologies as well, such as machine learning algorithms (artificial intelligence). Theoretically, neurotechnological mind reading does not imply committing oneself to a particular position on the mind–brain relationship (such as reductionism). Neurotechnological mind reading, as I conceive of it, is

²⁰ A structural brain scan shows the structure of the individual brain: examples include CT scans or MRIs of the brain. They may reveal, for example, cerebral infarction or hemorrhage. Functional scans detect functional parameters: they may detect blood flow or electrical activity in order to measure brain activity, and an example is the functional MRI (Roskies, 2013).

²¹ On this topic of "mind reading" in relation to (forensic) psychiatry, see also Meynen (2018a, 2019, where the term "neurotechnological thought apprehension" is used, and 2020b).

²² Heyes and Frith (2014): "Our ability to ascribe mental states to ourselves and others is known as 'theory of mind,' 'mentalizing,' 'folk psychology,' or 'mind reading.' ... Mind reading allows us to predict, explain, mold, and manipulate each other's behavior in ways that go well beyond the capabilities of other animals." As this quote makes clear, other terms are sometimes used to refer to the human capacity of mind reading.

²³ See also Ienca and Andorno (2017) on the notion of "reading" and the state of neurotechnological techniques: "It is true that functional brain imaging cannot really 'read' thoughts, but can only highlight differences between brain activations during different cognitive tasks, and to infer from such differences certain conclusions about an individual's thoughts. However, the fact remains that, even if in an indirect manner, these new tools are increasingly able to determine with a high degree of accuracy certain brain data that belong to the private sphere and deserve to be protected from public scrutiny."

²⁴ This, and what follows about the concept of mind reading, is in accordance with Meynen (2018a, 2019, and 2020b).

pragmatic: as long as neuroimaging yields useful information about a subject's mental state (broadly conceived), it can be considered neurotechnological mind reading. The broad conception of mental state implies that it includes the ascription of thoughts, emotions, intentions, inclinations, biases, desires, and mental capacities.²⁵

At this moment, neurotechnological mind reading is certainly not ready for clinical and forensic psychiatric practice. Yet, to some limited extent, it is possible in laboratory conditions. Some years ago, Gallant and his colleagues were able to reconstruct the movies people viewed using fMRI technology measuring brain activity: the reconstructed movies show a remarkable resemblance to the movies people had been watching (Nishimoto et al., 2011). In the discussion of their results, they write: "This is a critical step toward the creation of brain reading devices that can reconstruct dynamic perceptual experiences" (p. 1644). More recently, Marcel Just's group reported that they were able to identify the physics concepts that subjects were thinking about in an fMRI scanner. The subjects, with some background in physics, thought about concepts like energy, acceleration, and temperature (Mason & Just, 2016). With the help of machine learning, the researchers were able to identify the concepts that the subjects were thinking about. Studies like these merely provide a "proof of principle": they only show that using the combination of neuroimaging and machine learning (artificial intelligence), to some extent, thoughts – mental states – can be identified or "read." Yet, Just et al. used a multiple-choice design, in which the subjects (and the computer) could only choose from a limited set of physics concepts. Furthermore, reading physics concepts is far from psychiatric utility, of course. More recently, however, Just and his colleagues, again using fMRI combined with machine learning, were able to distinguish suicidal youths from nonsuicidal youths.²⁶ This clearly is the kind of information psychiatrists are interested in.

What could be the value of such developments for insanity assessments? As we have seen, reliance on first-person accounts constitutes a vulnerability, as there is a real risk of faking and malingering (Section 15.2). Perhaps, in some years' time, it might be technically possible to detect and thus obtain psychiatrically relevant information about a person's condition using such brain-based mind reading. For instance, it might be possible to detect hallucinations or delusional thoughts (Meynen, 2018b). Such findings could support the conclusion that the defendant suffers from schizophrenia and increase the likelihood that the defendant was psychotic at the time of the crime. This information may be valuable regarding

²⁵ In principle, this means that also current diagnostic procedures (e.g., those used to detect a brain tumor) could count as mind reading insofar as they yield some information regarding a person's mental capacities. Yet, in this chapter I will focus on types of mind reading that are not (yet) available in clinical practice. On "brain/mind-reading," see also Haynes (2012).

²⁶ Just et al. (2017). The accuracy is not 100 percent, yet clearly better than chance. On this, and on what follows on "mind reading" and legal insanity, see Meynen (2020b).

the question of his legal insanity. Yet, even if this were technically feasible, it is not self-evident whether – and if so how – it could be used in forensic practice. There may be both legal and ethical issues (Meynen, 2019). To mention just a few: shouldn't defendants be protected against psychiatrists who seek to retrieve information directly from their brains? How about mental privacy? Could defendants be forced to undergo such a neuroimaging evaluation – and would psychiatrists be willing to cooperate with such an involuntary procedure? In my view, given the weaknesses of insanity evaluations, we should not immediately reject possible avenues to strengthen their reliability. On the other hand, given the privacy-invasiveness of such techniques, we should consider legal and ethical qualms very carefully before making use of them. In addition, we should not be overly reliant on these techniques. Suppose that symptoms of schizophrenia are “detected” in a defendant during some mind-reading procedure: does that mean that the defendant heard voices at the time of the crime? Not necessarily. As Scott and Resnick warn, “Persons who have true schizophrenia may also malingering auditory hallucinations to escape criminal responsibility. These are the most difficult cases to accurately assess” (Scott & Resnick, 2016).

15.8 CONCLUSION

Legal insanity is a multidimensional phenomenon in which law, psychiatry, and ethics come together – and it has given rise to much debate. We have considered several central issues. First, we addressed the question of whether the insanity defense should be part of our legal system. Different concerns have been raised, often connected to the reliability of the assessments. Even though responses to these concerns can be provided, these qualms should be taken seriously as they tend to expose vulnerabilities of the defense that deserve attention. Next, we considered the question of what the criterion for legal insanity should look like. Relying on a common – Aristotelean – account of responsibility, I offer that both an epistemic and control component must be included.

Free will is frequently deemed theoretically crucial to justify the defense. However, based on our analysis, I concluded that free will is not related to the epistemic factor which is present in many standards. Notably, the most influential insanity criterion in the Western world, the M’Naghten Rule, merely contains a knowledge component. Free will, therefore, is not relevant to justify that standard. Still, there is a direct link between free will and the control prong, which also regularly features in insanity standards worldwide. As far as the insanity defense includes such a control element, free will could provide a justification.

The burden of proof – in particular the threshold of proof – deserves careful consideration, also in debates about the reliability of psychiatric assessments. It is important to realize that evidence for insanity often requires no more than proof “by a preponderance of the evidence.”

By entering the courtroom to provide expert opinion, the psychiatrist leaves the realm of *standard* medical ethics. Meanwhile, it is vital to recognize that there are clearly ethical obligations, in particular truth telling and respect for persons, which apply. Truth telling implies respecting the boundaries of one's expertise. Not providing an opinion on the ultimate issue of the defendant's insanity can well be the expression of such respect.

Nowadays, many feel that neuroscience could help to (better) assess a defendant's criminal responsibility, yet we should be aware of its limitations. These not only regard technical matters of validity and reliability, but they also concern the extent to which neuroscience is relevant to the legal question at hand. Looking to the future, neurotechnological "mind reading" may start to offer new possibilities. But these techniques will have to be carefully assessed, not least from an ethical perspective, before they can be used in a forensic context.

Amidst all the controversy about the insanity defense, there is one thing that seems uncontroversial: the defense is likely to continue to not only cause heated discussions, but also to contribute to the fairness of the criminal justice system.

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