



Remodelling criminal insanity: Exploring philosophical, legal, and medical premises of the medical model used in Norwegian law

Linda Gröning^{a,b,*}, Unn K. Haukvik^{c,d}, Stephen J. Morse^e, Susanna Radovic^f

^a Faculty of Law, University of Bergen, University of Bergen, PB 7806 5020, Bergen, Norway

^b Regional Centre for Research and Education in Forensic Psychiatry and Psychology, Haukeland University Hospital of Bergen, PB 1400, 5021, Bergen, Norway

^c Department of Mental Health and Addiction, Institute for Clinical Medicine, University of Oslo & Centre for University of Bergen, Norway

^d Regional Centre for Research and Education in Forensic Psychiatry and Psychology, Oslo University Hospital, PB 4956, Nydalen, 0424 Oslo, Norway

^e Law School & Psychiatry Department, University of Pennsylvania, 3501 Sansom St., Philadelphia, PA 19104-6204, USA

^f Department of Philosophy, Linguistics and Theory of Science & Centre for Ethics, Law and Mental Health, University of Gothenburg, PB 100, SE-405 30 Gothenburg, Sweden

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ABSTRACT

This paper clarifies the conceptual space of discussion of legal insanity by considering the virtues of the ‘medical model’ model that has been used in Norway for almost a century. The medical model identifies insanity exclusively with mental disorder, and especially with psychosis, without any requirement that the disorder causally influenced the commission of the crime. We explore the medical model from a transdisciplinary perspective and show how it can be utilised to systematise and reconsider the central philosophical, legal and medical premises involved in the insanity debate. A key concern is how recent transdiagnostic and dimensional approaches to psychosis can illuminate the law’s understanding of insanity and its relation to mental disorder. The authors eventually raise the question whether the medical model can be reconstructed into a unified insanity model that is valid across the related disciplinary perspectives, and that moves beyond current insanity models.

1. Introduction

The legal doctrine of criminal insanity concerns a criminal defendant’s lack of capacity for responsible action and provides an excuse from responsibility and punishment in most countries. Although it is both ubiquitous and ancient in western legal systems, the criteria for criminal insanity continuously stir controversy. Insanity rules differ among jurisdictions (Simon & Ahn-Redding, 2008; Stuckenberg, 2016), but commonly rely on disputed assumptions about mental disorders (see inter alia, Slobogin, 2000; Hallevy, 2017). In the modern era, both the justification for the doctrine and its adjudication depend heavily on the teachings of psychiatry and on diagnostic categorisations. Psychosis appears to be central to the understanding of criminal incapacity based on mental abnormalities (Moore, 2015), but the legal relevance of psychosis is unclear.

Scholars disagree on which insanity model reflects the most adequate approach to provide legally, morally, and socially justifiable delimitation of criminal responsibility – and on whether the insanity doctrine

can be defended at all (see inter alia, Slobogin, 2009; Goodin & Bennet, 2018; Malasteti, Jurjako, & Meynen, 2020). The UN Convention on the rights of persons with disabilities has sparked debate about whether there is a moral or lawful basis for people with mental impairment to be treated differently from others under the criminal law (see inter alia UN Doc A/HRC/10/48, p.15; Minkowitz, 2014; Perlin, 2017). The international discourse currently reflects a paradigmatic understanding of insanity that is mainly framed by Anglo-American law (Sinnott-Armstrong & Levy, 2011). Following this paradigm, most countries have modelled their rules (or practices) on a ‘mixed model’ which requires both a mental disorder criterion, and a functional causal requirement that the disorder resulted in certain functional (cognitive or control) impairments that influenced the commission of the crime (Simon & Ahn-Redding, 2008; Stuckenberg, 2016). The ‘medical model’ identifies insanity exclusively with mental disorder, and whether the disorder influenced the commission of the crime is not relevant. Such a model has been used in Norway for almost a century, with psychosis as a proxy for insanity (Gröning, 2021; Gröning, Haukvik, & Melle, 2019).

* Corresponding author at: Faculty of Law, University of Bergen, PB 7806, 5020, Norway.

E-mail addresses: Linda.groning@uib.no (L. Gröning), u.k.h.haukvik@medisin.uio.no (U.K. Haukvik), smorse@law.upenn.edu (S.J. Morse), susanna.radovic@gu.se (S. Radovic).

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Noteworthy, it has been defended as a more justifiable approach to insanity (Moore, 2015), which challenges the insanity doctrines of most countries (Bijlsma, 2018).

We argue that the medical model has not been sufficiently explored in contemporary reconsiderations of insanity doctrines. A key challenge is that the discussions about criminal insanity involve arguments, concepts, and premises from several fields, where law, psychiatry/psychology and philosophy are the most central to the debate. While each discipline provides valuable insights to the discussion, the transfer of knowledge across disciplines may produce confusion. When key concepts are transferred between established disciplines, there is a risk of misunderstandings due to different definitions and interpretations of the concepts at hand.

Therefore, our aim is to clarify the conceptual space of the insanity discussion by paying attention to the virtues of the medical model. We will explore this model from a transdisciplinary perspective and show how it can be utilised to *systematise and reconsider* the central premises involved in the insanity debate.¹ Our aim is not to defend or argue against the medical model, but merely to discuss how it may function as a new point of entry for studying criminal insanity. To obtain this, we propose a conceptual framework that views criminal insanity as a *multifaceted phenomenon*, consisting not only of legal, but also of philosophical and medical elements. This framework thus utilizes the disciplinary fields that are central to illuminate the law's understanding of insanity and its relation to mental disorder. We will pay specific attention to recent mental health research that involves *transdiagnostic and dimensional approaches to psychosis* (as a heterogeneous phenomenon that occurs across diagnostic categories and with different degrees of seriousness), because we consider such approaches more relevant to legal purposes than the standard diagnostic use of categories. Eventually, we raise the question whether the medical model can be remodelled into a *unified insanity model* that is consistent with the concepts and data from the involved disciplines.

The article is structured as follows. First, section 2 presents our conceptual framework and understanding of criminal insanity as a multifaceted phenomenon. Section 3 turns to the medical model, and how our conceptual framework could be utilised to explore it. Section 4 provides reflections on the medical model as a gateway to a valid unified model. Finally, section 5 offers brief concluding remarks.

2. Criminal insanity as a multifaceted phenomenon

Building on our previous research, we begin with outlining a multifaceted conceptualisation of criminal insanity. This relies on a rational reconstruction of legal concepts (Alexy & Peczenik, 1990; Bankowski, MacCormick, Summers, et al., 2016, pp. 9–28) that recognizes that the insanity doctrine relies on three basic assumptions: (1) Humans generally possess the capacity for responsible behavior; (2) mental disorders can affect this capacity; and (3) criminal responsibility and punishment require the capacity for responsible behavior (see inter alia Morse, 2016, pp. 239–276). As such, the insanity doctrine contains not only legal, but also philosophical and medical perspectives.

In its philosophical elements, the insanity doctrine needs to be understood by metaphysical and normative premises at different levels of abstraction (see inter alia, Moore, 1984). Any account of insanity is shaped by how the various premises are understood and related to each other. These premises concern both descriptive and normative accounts of the requirements and limits of human agency, freedom of action and responsibility, as well as of the nature of insanity and mental disorder.

The philosophical perspectives also include epistemic considerations, concerning the transfer of knowledge between medicine and law. Each of these topics has generated a large amount of literature and many rival understandings of the premises of psychiatry and related control systems for the justifications and content of insanity doctrine. This literature also includes critical accounts of psychiatric power (see inter alia, Foucault, 1988).

The positive legal doctrines and practices are crucial for understanding the insanity defense. Law is a distinct normative enterprise that regulates social interaction (Van Hoecke & Warrington, 1988), with the primary aim to guide behavior through practical reason. Any legal system's idea of the relation between mental disorder and responsibility is transformed into rules and standards, primarily by legislators and judges. These agents are guided inter alia by their social and cultural context, constitutional principles and functional demands of the criminal justice system, such as regarding the possibility of proving criminal (in)sanity (Grønning, 2015). This provides the insanity doctrine with several legal features that are somewhat contingent to a specific legal order. We know from previous research that different countries have different insanity rules, different responses to people found to be insane and different forensic systems (Goethals, 2018; Simon & Ahn-Redding, 2008; Stuckenberg, 2016). However, previous research also indicates that the content of legal rules does not always correspond to the expected legal outcome of the application of the rules. Jurors' intuitive prototypes may for instance shape their verdicts more than legal definitions of insanity (Ceci & Burd, 2016; Loudon & Skeem, 2007). The tensions between rules and practical outcomes are also a product of the jurisdiction's legal culture. Thus, the law includes various kinds of rule-, practice, and culture perspectives (Koch, Skodvin, & Sunde, 2017).

The insanity doctrine further relies on assumptions about the existence and nature of mental disorders and how these affect the individual's capacity for responsible behavior. This relates the law to the extensive mental health discourse that includes many different perspectives on mental disorder, including neuroscientific, biological, and phenomenological perspectives. Law and neuroscience has in this regard developed into a large discourse (see inter alia, Antonio D'Aloia & Maria, 2020). However, current insanity doctrines especially include psychiatric (diagnostic) perspectives. Criminal insanity has been described as a 'hybrid construct' developed through the interplay between judges and forensic psychiatric experts (Thom, 2010; Thom & Finlayson, 2013). Scholars have also pointed to psychosis as central to a common western idea of insanity (Moore, 2015; Wondemaghen, 2017, pp. 133–152), drawing attention to the fact that many of those acquitted due to insanity are diagnosed with schizophrenia (Callahan, Steadman, McGreevy, et al., 1991; Perlin, 2017b; Tsimploulis, 2018). Current psychiatric practices are at the same time increasingly criticized in light of advancing scientific theory and data that challenges the categorical diagnostic approach (see inter alia Jablensky, 2016; Scull, 2021). In addition, the mental health discourse also recognizes the cultural perspective. It is commonly acknowledged that the understanding and experience of serious mental disorders, for instance the content of psychotic delusions, may vary across cultures (Gaebel & Zielasek, 2015).

We maintain that robust legal knowledge requires the consideration of (at least) all these perspectives. The law is an argumentative enterprise that gains legitimacy through justifiable rules and judgments. This requires that the premises involved in these justifications are internally and externally valid (Peczenik, 2001). When the law links insanity to philosophical and medical premises, these premises need to be valid and consistent with each other. This is also a practical requirement, as apparent inconsistencies in rules and judgments about criminal insanity and mental disorder may weaken law's social legitimacy. If, for instance, insanity verdicts are justified through faulty statements about how mental disorders affect individuals this may produce mistrust of the correctness of these verdicts. Considering this importance of clarifying and linking the different premises and concepts at stake, we will now turn our attention to the medical model as a possible unifying structure.

¹ The article, and its proposed methodology, is related to a research project, funded by the Norwegian research council (project number 314840). (DIMENSIONS | University of Bergen (uib.no)), where we will explore the law's concepts of criminal insanity and psychosis within the framework of the medical model.

3. The medical model as a possible unifying structure

3.1. The content and characteristics of the medical model used in Norwegian law

To explore the different premises involved in the insanity problem, and how these are related, the medical model used in Norwegian law provides an interesting framework. In general terms, we define a 'medical model' as a model that defines insanity exclusively in terms of (some kind of) mental disorder, without *any* requirement that this disorder causally influenced the crime by affecting the cognitive or control capacities that seem related to the crime. Such a medical model has been used in Norwegian law since 1929, when the 1902 Penal code was revised. Since 1929 there has been three major amendments of the insanity rules, the last as recent as 1 October 2020 (Grønning, 2021).

The medical model has thus been operationalized in Norwegian law through different statutory rules. Before 2002, the legal criterion for insanity was 'insane' (*sinnsyk*), which captured those that today would be considered 'psychotic'. Between 2002 and 2020, the legal criterion has been 'psychotic', reflecting the medical concept of psychosis in requiring *significantly impaired reality understanding* (Grønning et al., 2019). This criterion was retained when the 2005 Penal code was enacted but has recently been amended. The new rule that entered into force 1 October 2020 uses the disorder criterion 'severely deviant state of mind'. It also requires that the defendant was 'insane due to' his or her disorder, which should be assessed in relation to the degree of failure of the defendant's understanding of reality and functional ability. Although this rule thus has replaced the psychosis criterion with a 'common language' disorder criterion that allow for a large degree of substantial judicial discretion, the essence of the medical model remains. Mental disorder is still sufficient for insanity, and psychosis is still central (Grønning, 2021).

In recent years, the medical model has faced challenges in legal practice. These challenges were made clear to the public by the case that followed Anders Behring Breivik's killing of 77 people in Oslo and on Utøya on 22 July 2011 (TOSLO-2011-188,627-24). The case raised a wide-ranging international debate about criminal insanity (see inter alia, Wittig, 2013; Bortolotti, Broome, & Mameli, 2013; Moore, 2015). Was Breivik driven by ideology or insanity? Was his ability to plan reconcilable with insanity? Although the Norwegian penal code equated criminal insanity with being 'psychotic', it did not provide enough guidance about the legal threshold for being psychotic and insane for the judges and experts. Two pairs of experts concluded differently on Breivik's (in)sanity while there was public pressure to hold him criminally responsible (Melle, 2013). The court eventually concluded that Breivik was sane and responsible, mainly by showing that he did not suffer from a psychotic disorder as defined in ICD-10. This link between diagnostic disorder categories in ICD-10 and the legal threshold for being psychotic as a proxy for insanity was, however, not clarified or justified. The judgement was also based on incorrect statements about the relevant disorders, for instance that Breivik's ability to plan was hard to reconcile with schizophrenia (Dahl, 2013).

The Breivik case resulted in the legislature removing the psychosis criterion and replacing it by the above discussed criterion 'severely deviant state of mind' that has less direct medical references. In providing larger judicial discretion, this criterion may result in larger variation in the legal assessment of mentally disordered offenders, and in how the experts' medical point of view is considered (Grønning, 2021). Moreover, the core problems shown by the Breivik case are not unique to Norway and not limited to high-profile cases or to specific insanity rules but are present also in other countries. Insanity standards are generally vague, offering discretion to judges and experts, and insanity judgments are criticized for relying on underdeveloped assumptions about mental disorders.

Despite its manifest shortcomings in legal practice, we argue that a medical model, as an ideal regulation model, may offer a framework for

exploring the philosophical, legal, and medical premises of the insanity debate. In contrast to the insanity models used in most countries, this model seems to adopt the premise that it is possible to link philosophical and normative standards for criminal responsibility directly to medical concepts and disorder definitions. By exploring how these key perspectives can be concretised and related within such a model, we may reach a new understanding of criminal insanity and the legal relevance of mental disorder. In the following, we will outline the contours of such an exploration and provide a practical sketch for addressing questions that needs further considerations.

3.2. The philosophical facets of the medical model

On a fundamental level, the medical model relies on general philosophical premises concerning the nature of mental disorder, human agency, the capacity for responsible behavior, as well as on moral intuitions about who is blameworthy (Moore, 1984; Moore, 1993). Criminal law, which includes the medical model in Norway, is in this regard, paradigmatically built upon an account of the responsible person as someone potentially guided rationally by reasons (Morse, 2016). A responsible agent, who is potentially blameworthy and a proper target of punishment, is typically understood as normatively competent; capable of rational reflection, and of recognizing and responding to reasons for actions, factual as well as normative (Brink, 2013).

In philosophical discourse, there are a multitude of understandings of the concepts involved as well as different theories of how to best account for the requirements for moral (and legal) responsibility. Consequently, there are diverging views on the justifications of the insanity doctrine, relating to different views of justification for punishment. Criminal insanity is firmly connected to the idea, which can be traced back to Aristotle, that only those morally responsible for a crime deserve punishment for it. In order to be responsible for one's actions, in turn, the actions must be voluntary, and the agent must be aware of what he or she is doing, and capable of rational conduct in response. This view is traditionally linked to retributivism, a theory of justice that emphasises punishment as a just response to immoral acts (Moore, 1997). However, there are other views of the function or justification of punishment which also justify an insanity defense. Deterrence theories underscore the preventive effects of punishment and incapacitative theories emphasize the need to incapacitate dangerous agents (Walker, 1991). Consistent with these different justifications for punishment, the insanity doctrine is either taken to shield morally innocent offenders from undeserved punishment, or to exempt from punishment those who are not in need of incapacitation or not deterrable by punishment (Moore, 2015).

The Norwegian medical model is understood to involve both retributive and utilitarian justifications (Grønning et al., 2019). The primary justification is retributive and consists in arguments that some mentally disordered offenders are not blameworthy. Offenders who were 'psychotic' at the time of the offence, and with a pronounced intensity of psychotic symptoms have, in this regard, been assumed to lack the capacity for responsible behavior (NOU, 2014: 10, p. 111). In addition to this retributive justification, the Norwegian medical model also relies on deterrence justifications. The view is then typically that there is no benefit from holding liable those who are in such a confused and abnormal state of mind and that the criminal justice system's ability to induce members of the public to obey the law through deterrence and the formation of norms is not weakened by absolving these persons of criminal responsibility (NOU 2014: 10, p. 85–86, see also Grønning & Rieber-Mohn, 2015, p. 113).

Considering the more specific relevance of mental disorder for criminal responsibility, the medical model seems more clearly to involve views and premises that conflicts with those involved in "mixed model" insanity doctrines –as it seemingly does not require any causal relation between disorder and crime. As such it seemingly conflicts not only with the legal insanity paradigm, but also with many of the current most

influential philosophical accounts operating within this paradigm (Sinnot-Armstrong & Levy, 2011) that typically consider insanity with reference to standards of capacity to understand and/or to control oneself. An influential view is here that the central question is whether a disorder impairs the agent's practical reasoning in a given context – which seems to require some kind of mixed model (Morse, 2016). However, contemporary philosophical discussions of insanity have also indicated interest in the medical model. Scholars has argued that insanity is best considered a 'status' excuse, where madness itself deprives the individual of the status as a responsible agent (Moore, 2015). Such a view seems to support the essential characteristic of the medical model, i.e., that insanity is identified exclusively with mental disorder without any requirement that it influenced the particular criminal action.

Whether the medical model can be justified or not, thus seems to depend on which philosophical position on responsibility that is taken. At the same time, it is an intriguing question whether a medical model must be linked to a status excuse position, and what practical legal implications such a position in that case have. From a practical legal perspective, a medical model can be mainly justified by arguments about the proper functional division between the legislature, the judiciary, and the experts. In Norwegian law, psychosis has also been used as proxy for insanity in statutory legislation to reduce legal uncertainty and evidentiary problems (Grønning, 2015; Grønning et al., 2019). Moreover, the justification for equating insanity with psychosis involves as discussed above arguments to the effect that psychotic offenders lack the normal ability to understand and control their actions, and therefore should not be blamed and punished. Hence, to some extent, Norwegian law has involved a 'mixed model approach' at the legislative level, where the legislator's statutory definition of insanity has relied on paradigmatic philosophical premises about the causal relation between mental disorder and criminal action. The argument is then that some (sufficiently) severe mental disorder states, cf. to be psychotic, for practical legal purposes can be assumed to influence action.

In addition, a medical model requires that the specified medical condition required for insanity is present *at the time of the act* (cf. the Norwegian Penal code section 20). This requirement follows from the fundamental action centered and retributive account of criminal responsibility. When Norwegian law used the insanity criterion 'psychotic', it was therefore required that the defendant was actively psychotic *while committing the crime*. To evaluate insanity, one must also within such a medical model consider for instance that the symptom severity of mental disorders fluctuates over time and assess the severity of the defendant's functional impairments in a specific context of action. This focus on the time of the act, may reduce the practical difference between a medical and mixed model approach.

To fully understand the premises and implications of the medical model, more detailed examination is needed. To what extent and in what way do choices between alternative philosophical justifications in general, and the medical model in particular, set premises for the relevance of mental disorder? The questions of what kind of mental deficits that may qualify for insanity and why, and how diagnostic classifications matter need to be addressed. To explore this further, philosophical analysis of core concepts such as agency, responsibility, and blame, will be required, as well as deeper investigations into the implications of different philosophical views on mental disorder both as phenomenon and as an excuse. Another question of importance concerns potential epistemic challenges regarding knowledge transfer between medicine and law. Such an exploration may also enlighten how and to what extent the medical model essentially differs from mixed model approaches.

3.3. The practical legal facets of the medical model

To understand the legal facets of the medical model, it is essential to explore the 'internal legal point of view', i.e., the law's authoritative self-description expressed in formal legal sources. Here we need to turn our attention to the medical model as it has been defined and applied in

practice in Norwegian law, and study the argumentation in (preparatory works/white papers to) the relevant legal rules, court cases and academic legal work. Of specific interest is to identify the key arguments used to explain and justify criminal insanity and its relation to mental disorder. To what extent is, for instance, the legal concept of psychosis linked to specific medical perspectives or premises, such as diagnoses or symptoms, and are there some standard arguments, such as the ability to plan, that influence legal conclusions? And what about factors concerning the defendant and the character of the crime? Previous studies indicate, for instance, that the defendant's gender influences insanity evaluations in court (Yourstone, Lindholm, M. G., et al., 2008).

To gain comprehensive understanding of the law's concepts of insanity and mental disorder, empirical studies of legal argumentation are thus of importance. Legal empirical studies, today common in legal research, are largely absent in current legal studies of insanity (see however, Mackay, 1990; Mackay, Mitchell, & Howe, 2006; Steadman, 1985). There is diverse research about different topics relating to the insanity doctrine (Adjorlolo, Chan, & DeLisi, 2019), such as studies providing data about the (mis)use of the insanity defense related to the frequency and rate of insanity acquittals, the attitudes of jurors, gender bias, and the diagnoses of those acquitted by reason of insanity. There are also studies of the decision-making processes of forensic experts (Mandarelli et al., 2019). However, none of these has clarified how insanity and psychosis are conceptualised in authoritative legal sources. It is particularly central to study the application of rules in court cases, i.e., at the trial level, as these may reveal a variety of premises for understanding the law's concepts of insanity and psychosis.

Two of the authors of this article, have previously carried out a pilot study of all published insanity cases between 2013 and 2018 relating to the medical model in Norwegian law (Grønning et al., 2019). This study indicated that insanity is associated with diagnoses (mainly schizophrenia) and psychosis symptoms (mainly hallucinations and delusions). This is not surprising given that hallucinations and delusions are the core positive symptoms in impaired reality testing, and that schizophrenia is the disorder in which they most often occur. Studies from other countries show similar results (Callahan et al., 1991; Perlin, 2017b; Tsimploulis, 2018). The law is unclear, however, about why and how psychotic symptoms matter. Our study also indicated a variation in the application of the rules because defendants with similar disorders are judged differently. The study revealed that the character of the crime and the defendant's ability to plan may affect judgments about the legal concept of psychosis and insanity. This suggests that there are inconsistencies/variation in the legal material that occurs because normative/cultural ideas about madness alter the legal understanding of psychosis. In other words: the medical model as operationalized in Norwegian law may in the end embody not a medical, but a *normative*, concept of mental disorder constructed from the folk psychological understanding of insanity.

To reach a fuller understanding of the legal construct of insanity and to identify inconsistencies and variations in the legal material, thorough multilayered examinations of the material are needed. Norway has a relatively limited number of insanity cases. There is thus an opportunity to study all cases in which insanity has been tried in the Norwegian courts for a certain period (there are no official statistics, but from our previous studies we expect that there are fewer than 250 cases/year). A further exploration of Norwegian insanity law should involve analysis of how the concepts of insanity and psychosis have changed over time. Broader historical and legal cultural perspectives would, for instance, help us to understand the reasons for possible variations (Skålevåg, 2016). The concepts of insanity and psychosis must also be studied across different legal domains, i.e., across rules, preparatory works, court cases and legal academic work, and compared to the use of concepts about mental disorder in other criminal and civil law contexts.

3.4. The medical facets of the medical model

The medical perspectives involved in an insanity doctrine must be understood within a legal and normative framework, and not from a purely medical or empirical point of view because these perspectives are contingent on how insanity is legally defined. The mental health discourse also typically serves other aims than informing the law. At the same time, medical and scientific insights can be used to revisit the law's current assumptions about mental disorders. The inclusion of such insights seems especially important regarding the medical model, as it identifies insanity entirely with mental disorder. It is here imperative to explore the relevance of recent approaches in mental health research and seek to move beyond the psychiatric diagnostic framework. Notwithstanding the usefulness of diagnostic categories, these are clearly not developed for legal purposes (Moore, 2015; Morse, 2016; see also Cautionary statement for forensic use of DSM-5). They are too broad to aid in clarifying the legal concept of mental disorders because there is such heterogeneity within each category, and they are subject to continuous revisions. In addition, an association between insanity and psychiatric diagnosis may stigmatise. Most persons with schizophrenia are not violent or criminal offenders for example (Fazel, Wolf, Palm, & Lichtenstein, 2014; Whiting, Gulati, Geddes, & Fazel, 2021), although too many people think they are.

Thus, we suggest paying attention to the important shift that has occurred in mental health research, from diagnostic categories towards dimensional approaches to psychopathology, both across diagnoses and regarding symptom severity (Barch, 2017; Cuthbert, 2014; Cuthbert & Insel, 2013). That is, psychotic symptoms such as delusions, hallucinations, and thought disturbances may be studied as distinct psychopathological phenomena which may occur in different disorders across the psychosis spectrum, rather than only as part of a cluster of symptoms within a specific diagnostic entity (such as schizophrenia or bipolar disorder). These symptoms may also be recognized as present on a continuum rather than categorically distinct phenomena, such as for instance the dimensional axis that ranges from normal thoughts and perceptions through extreme and overvalued ideas into manifest delusions. There is also a continuum between normal and pathological mood relevant to the understanding of mood disorders (Ruscio, 2019).

To explore whether such approaches could contribute to legal clarification, a key focus should be on *legal arguments about psychosis*, as the key condition within the Norwegian medical model as well as in the insanity doctrines of other countries. Based on our previous studies (Grønning et al., 2019), such arguments appear to involve unclear assumptions about psychosis, with a stronger focus on diagnostic criteria than dimensional evaluations. Dimensional and transdiagnostic insights about psychosis, may here be useful as a new point of entry to critically scrutinize, evaluate and revisit legal arguments and assumptions about mental disorders. Are these assumptions valid, outdated, or underdeveloped and, in case, what improvements are needed from the scientific point of view?

Specific focus should here be paid to the concept of *impaired reality testing* as the medical core concept of psychosis (Bebbington & Freeman, 2017; Hugdahl & Sommer, 2018). We have previously showed that impaired reality testing is central also to the law's concept of insanity, or perhaps more accurately, to the law's understanding of psychosis as a proxy for insanity (Grønning et al., 2019). The construct of impaired reality understanding also seems to have some relation to the philosophical account of the responsible person as someone capable of rationally recognizing and responding to reasons for actions – as it may be understood as an incapacity of doing this.

There are, however, commonly recognized difficulties in drawing the line between intact and impaired reality testing, and the meaning of the concept of impaired reality testing is generally unclear (Waters, Blom, & Jadri, 2018). If the law should rely on the concept of impaired reality testing, a clarification of its (legal) meaning is needed. There are studies that may cast new light on the dimensional variables of legally relevant

constructs like hallucinations, delusions (Elahi, Perez, Varese, et al., 2017; Hugdahl, 2015) commonly associated with impaired reality understanding. Such studies may also enlighten the relation between (psychosis) symptom severity and functional impairments (Stratton, Brook, & Hanlon, 2017) relevant to law. If we manage to deconstruct the medical categories that are currently associated with insanity, we may also reach at a more precise explanation of the relevance of mental disorders to criminal responsibility.

4. Towards a unified model of insanity and psychosis?

We have shown how the medical model can be a gateway to get a better understanding of the links between philosophical, legal, and medical premises involved in insanity discussions. This approach also encompasses the view that it may be possible to reconstruct the medical model into a *unified model* valid across the involved disciplinary perspectives. Such a reconstruction is an ambitious task because it requires systematizing and linking the various philosophical, legal, and medical premises, and we will thus only highlight some preliminary steps in this enterprise.

First, analyzing the validity of the identified involved philosophical, legal and medical premises is required. Invalid premises inherent in existing accounts of the medical model, such as faulty medical premises about disorders or gender bias in the law's application in practice of this doctrine, should be excluded. The next step would be to analyse which arguments should prevail in cases of conflict. Philosophical investigations will provide certain core alternative approaches to insanity and psychosis, and thus reveal possible and sometimes necessary choices between them. Moreover, we must recognize that any insanity doctrine must be limited by the structure of criminal law and constitutional requirements. At least as long as we recognize criminal insanity as a fundamental legal doctrine, its general philosophical foundations and related criminal law principles carry certain structural requirements, such as regarding this doctrine's systemic character as an excuse. On the constitutional level, human rights requirements are central, and dictate for instance that insanity standards cannot be discriminatory. The recent and debated United States Supreme Court case, *Kahler v. Kansas*, exemplifies the implications of how such constitutional limitations are understood and related (*Kahler v. Kansas* [2020] 589 U.S. (2020)). In addition, we may pay attention to functional requirements of the insanity doctrine as a basis for legal rules, judgments and practices, such as arguments about efficient proceedings or about the possibility to prove the existence of certain conditions.

Careful attention must be paid to clarify the relevance of mental disorders. Somewhere along the continuum between normal and pathological phenomena we may define a quantitative or qualitative cut-off that mirrors distinctions relevant for the law, and that may be translated into clearer legal cut-off points than we have to date. An intriguing question is whether the law's understanding of psychosis, embedded in the medical model involves the relation of psychosis to the specific cognitive and control functions paradigmatically central to legal evaluations in mixed model insanity doctrines.

Any restructuring of current knowledge about psychosis requires attention to the interplay between existing psychiatric categories and the understanding and definition of relevant symptoms and impairments (Fellowes, 2017). For a more comprehensive understanding, relevant (psychosis) symptoms may also be linked to their underpinning neurobiology, their observable behavior, their emotional impact, and their societal and cultural context (Hugdahl & Sommer, 2018). A revisiting of the medical model here raises questions about the law's understanding and legal cultural interpretation of psychosis. For instance, how should psychotic delusions be understood and distinguished from ideological ideas? The law seems to be more reluctant to accept that a seemingly ideologically motivated perpetrator may (also) have been psychotic. This legal point of view may ultimately challenge the link between insanity and scientific perspectives on mental disorders. Even if a medical

model would coincide with legal (folk psychologic) ideas, there may also be conceptual arguments against its direct association between insanity and mental illness.

Another challenge to this relation is that the law does not allow for the complexity embodied by mental health research. How can the law, which needs to be relatively static over time, respond to the rapid development of science? We propose that a reconstruction of the medical model through a dimensional account of psychosis may offer a link between normative views on insanity with empirical knowledge about mental disorders as existing phenomena. A central premise is then that the justified philosophical premises are at least to a certain extent compatible with the findings of mental health research. We find this to be plausible, given that they basically share the same reference point: human beings.

If such a synthesis of insights is successful and results in a (preliminary) unified insanity model, it must be subjected to a critical test by comparing it with alternative insanity models, as its validity claim also reaches beyond current dichotomies between existing mixed and medical insanity models. As discussed above, the general philosophical premises underlying a medical model, to a large extent coheres with premises involved in the mixed insanity model. Including the internal legal point of view, we may also argue that the practical difference between the models is not significant. Still, at least as a matter of legal principle, the mixed model operates with a two-stage evaluation, requiring both a disorder and that this influenced the crime. A crucial question to answer is then whether our unified model will include the latter stage in the mental disorder assessment. More specifically, will a trans-diagnostic and dimensional account of psychosis as a core for our proposed unified model allow for key normative viewpoints involved in conflicting (mixed) models? If so, within this unified model, the distinction mixed and medical models, as they are traditionally understood, will break down.

5. Concluding remarks

Mental illness is one of the most significant public health challenges and many criminal offenders suffer from severe disorders. Considering the serious consequences of linking psychosis to criminal insanity, it is urgent to advance the legal understanding of these phenomena. We have proposed to explore and revisit the medical model to create new understanding of the philosophical, legal, and medical facets of criminal insanity and to advance the legal understanding of psychosis. To carry out this research task, we have suggested a methodology that requires knowledge development across different scientific perspectives and conceptual frameworks. To a certain extent, this also requires the development of a shared scientific language (cf. Buckholtz, Reyna, & Slobogin, 2020), which certainly involves challenges. We are also aware that there may be too many scientific discrepancies to reach a unified model, not least because available mental health research is too inconclusive for legal (and clinical/forensic psychiatric) purposes. A thorough exploration of the links between insanity and mental disorder may also point towards a more fundamental critique of the medical model and the insanity doctrine generally. Nonetheless, to clarify these problems is of great value for legal development. Hopefully, our attempt will at least break down some disciplinary barriers and invite to further explorations into the different kinds of premises involved in the problem.

Declaration of Competing Interest

The authors have no conflict of interests.

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