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The first goal of this paper is to argue that the main reason why the naturalistic perspective on law does not gain traction in the literature is the prevailing legal image of man. According to this image, which has its roots in folk psychology, persons have the capacity to be authentically rational, i.e., they are able to recognize and to follow rules of rationality. The legal image of man is a powerful conceptual tool, used by legal theorists and practitioners to make sense of human behaviour in the legal context. However, I argue in this paper that this image seems to be in conflict with its scientific counterpart. The second goal of the chapter is to assess three stances toward the relation between the legal and the scientific images of man: revisionism, autonomy and integrationism.

Keywords: naturalism in legal philosophy, normativity of law, folk psychology, law and psychology

1 INTRODUCTION

Naturalism is a famously ambiguous doctrine. In this paper, naturalism will be understood as a doctrine proclaiming that philosophical questions are questions about the world – broadly understood world. Therefore, philosophical methods of inquiry should be held to the same standard as other methods of inquiry about the world. The standard in question is evidential because all claims about the world can be evaluated on the basis of their evidential support. For most naturalists, science provides the best evidence, as compared, for instance, to common sense.

In the last few decades, naturalism has swept over many branches of philosophy. Curiously, however, legal philosophy remains somewhat resistant. Some leading philosophers of law explicitly reject naturalism. Many others keep their distance. The first goal of this paper is to argue that the main reason why the naturalistic perspective on law does not gain traction in the literature is the prevailing legal image of man. According to this image, which has its roots in folk psychology, persons have the capacity to be authentically rational, i.e., they are able to recognize and to follow rules of rationality. The legal image of man is a powerful conceptual tool, used by legal theorists and practitioners to make sense of human behaviour in the legal context. However, as will be argued below, this image conflicts with its scientific counterpart.

The second goal of the paper is to assess three stances toward the relation between the legal and the scientific images of a man: autonomy, revisionism, and

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integrationism. According to the first proposal, both images are independent. According to the proponents of revisionism, the legal image should be completely – or at least largely – modified due to its inconsistency with scientific evidence. The proponents of integrationism argue that it is possible to synthesize both images, integrating the legal image of man with the scientific one, which would maintain the core assumptions of the former.

2 LAW AND FOLK PSYCHOLOGY

Folk psychology is the common sense understanding of other minds. It is an umbrella term that covers a broad range of abilities, such as predicting, explaining, and justifying behaviour.¹ These abilities are crucial in every social context, as they allow people to make sense of the actions of other people – as well as their own. The invention of folk psychology allowed coordinated behaviour to emerge – from cooperative foraging, to stock exchange, and maintaining the justice system.

The crucial, folk psychological concept is the concept of reason. Reasons are understood as causes of thought and behaviour. However, they are causes of a special kind. The folk concept of reason pertains only to those causes that are transparent for the acting person, and on the grounds of which she makes her decision. It is important to note that the folk explanation of behaviour includes reasons only when the target behaviour is intentional.² Unintentional behaviour is explained by causes understood in a standard, physical manner – such as situational factors or character traits.³ It is the mode of explanation of intentional behaviour, however, which truly marks the distinctiveness of folk psychology as compared to other modes of explanation.

Reasons come in different flavours, but the most standard ones are beliefs and desires. Beliefs cover a wide array of thoughts, from hunches to convictions about the truth of a proposition. The role of belief is to truthfully represent the world. Desires, on the other hand, pertain to the goals of actions. Many philosophers regard desire as more fundamental than belief in the causal chain leading to action. Philosophers tend to agree that desire activates practical reason, which then assesses the possible routes of achieving the desired goal and chooses the best one. To make this assessment, however, practical reason must utilize beliefs. To achieve one’s goals, it is necessary to know how things are, not only how one wish them to be.

² Malle 2004: 92-93.
³ Malle 2004: 111.
Reasons are theoretical, unobservable entities postulated by the commonsense theory of mind. As such, they are no different than various entities postulated by scientific theories. The uniqueness of reason explanations boils down to the fact that they require an assumption of the rationality of the person whose behaviour is the target of the explanation. Here is how this central assumption of folk psychology is described by Daniel Dennett (1987: 52):

However rational we are, it is the myth of our rational agenthood that structures and organizes our attributions of belief and desire to others and that regulates our own deliberations and investigations. We aspire to rationality, and without the myth of our rationality the concepts of belief and desire would be uprooted. Folk psychology, then, is idealized in that it produces its predictions and explanations by calculating in a normative system; it predicts what we will believe, desire, and do, by determining what we ought to believe, desire, and do.

Without the rationality assumption, the folk explanation of behaviour would face the danger of choosing from too many available explanations. Even the simplest behaviour, such as going outside with an umbrella, can be explained in many different and incompatible ways – without assuming that the person with an umbrella is rational and she wanted a shelter from the rain. Other reasons will always be possible, but the rationality assumption helps limit the assessment of the available evidence, identify the reasons that seem most plausible, and choose the best explanation. Assessing all of the available evidence would be counterproductive, as it would quickly lead to an information overload. Accordingly, folk psychologists imagine or fill in the details pertaining to the target behaviour themselves.

The rationality assumed by folk psychologists can be divided into two mental capacities: the capacity to act in the light of reasons and the capacity to act on the grounds of reasons. The former consists in being able to access one’s beliefs and desires. The latter means that one is able to weigh their beliefs and desires and make the decision to act on the basis of this evaluation. It is useful to distinguish between these capacities since it is psychologically possible to possess one without possessing the other.

The disorder of the capacity to merely recognize reasons can be illustrated by the phenomenon of self-deception. It consists in having a belief despite there being easily accessible and strong evidence against it. Self-deceivers are unable to recognize the reasons which undermine their false beliefs. As to the capacity to act on the grounds of reasons, it is impaired in the context of akrasia – or weakness of will – which results in an agent performing an action contrary to the consciously held belief about what s/he should do. Akratic behaviour, however, fulfils a strong desire. People acting acratically recognize their reasons, but are unable to act on the grounds of them.
The legal image of man is founded on folk psychology. There are many legal provisions that directly refer to the mind, mental states, or mental causes of decision making. For instance, in the legal context, it is often crucial to establish why a person did what she did. To make this investigation possible, appropriate conceptual tools – pertaining to the psychological mechanism of decision making – are required. Therefore, from the legal perspective, people are understood to be capable of practical reason, that is of forming intentions on the basis of their beliefs and desires. This is why legal and moral systems, of course with some cultural and historic variations, include concepts such as intention, motive, or forethought. The debates pertaining to the precise legal meaning of these concepts are often inconclusive, but it seems hard to imagine a legal system that would preclude discussion about a person’s mental state when she committed a crime, signed a contract, or undertook any kind of action having legal consequences. The following excerpt from the Model Penal Code is one of many examples of the role of folk psychology in the law:

A person is not guilty of an offense unless his liability is based on conduct that includes a voluntary act or the omission to perform an act of which he is physically capable. The following are not voluntary acts within the meaning of this Section: (a) a reflex or convulsion; (b) a bodily movement during unconsciousness or sleep; (c) conduct during hypnosis or resulting from hypnotic suggestion; (d) a bodily movement that otherwise is not a product of the effort or determination of the actor, either conscious or habitual.

The concept of voluntariness, central to all modern systems of criminal law, is closely connected to the concept of reason. Voluntary behaviour is behaviour caused by reasons. Law assumes, therefore, that most adults are able to determine their actions using their reasons. From a criminal law perspective, a person who is unable to act in the light of, and on the grounds of reasons, cannot be legally responsible for her actions. Of course, there are many aspects of voluntariness left out of legal provisions. When they are relevant to the case at hand, law utilizes the shared cultural knowledge pertaining to the causes of behaviour, i.e., the details of folk psychology.

Inferring mental states when evaluating action is common in the legal context as well as everyday life. This does not mean, however, that mental concepts have precisely the same meaning in both contexts. For instance, there are claims in the experimental literature that at least certain, everyday mental state concepts (such as the concept of intentionality, or what it means to do something voluntarily, purposefully, knowingly, wilfully, etc...) mean something different in law than in everyday contexts. A clear case of such a difference in meaning pertains to the legal term ‘indirect intent’ (dolus eventualis), which seems to have a somewhat different meaning than ‘intent’ in the everyday context.

However, despite these differences, the rationality assumption unifies the law with folk psychology.

It is difficult to establish the extent to which people are rational according to the law. Surely, the capacities to recognize reasons and to act on the grounds of them are to be understood dispositionally. Law does not treat people as conforming to all rules of rationality all the time. This would mean that law would require its subjects to form beliefs according to the rules of logic, i.e., if a person believes that \( p \), she should also believe all of the logical consequences of \( p \), which would obviously violate the ‘ought implies can’ principle. This is surely not the case, at least on the assumption that the legal image of man is folk psychological. The experimental literature on the subject of reasoning strongly suggests that people have no clear grasp, even implicitly, of many important rules of rationality, such as modus tollendo tollens or the conjunction rule. If people, generally, do not understand such reasons for action, it is puzzling to propose that they interpret others as adhering to rules of rationality as it seems that they just do not possess the concepts of these rules. Despite this bounded rationality, folk psychology works. For instance, behaviour predictions based on the common sense understanding of the mind are effective. All of this suggests that it would not be convincing to claim that that folk psychology and the legal image of man assume a strong notion of rationality.

It seems that law assumes some type of moderate rationality, i.e., a capacity to sometimes conform to some of the rules of rationality. The obvious problem with this new notion of rationality is its vagueness. The law’s solution to the problem of rationality is to provide its negative description – to list all situations that exclude or diminish rationality, such as having a mental disorder, being underage, or acting on strong emotion. In such cases, people are clearly unable to recognize or to act on legal rules understood as reasons for action. Unfortunately, how to positively depict this notion of rationality is far from self-evident. One of the few places in the contemporary legal systems where the positive notion of rationality is explicitly discussed is the so-called reasonable person standard. In many legal systems, the reasonable person standard is a conceptual tool that helps assess whether the legal subject acted negligently. To determine whether the conduct of the defendant is a case of careless omission, the judge will not be interested whether she could have and should she have known, but whether the reasonable person more generally – in the position of the defendant – could have and should she have known. The reasonable person standard is an objective test of negligence, which does not aim at assessing the individual fault of the defendant. The precise specification of the content of this standard goes beyond the aim of this paper. Its very presence underlines, however, the importance of the rationality assumption in law. Utilizing this standard

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5 Evans, Newstead & Byrne 1993: 14.
would be unjustified if the legal subject were unable to sometimes conform to some rules of rationality.

Legal rules should not be understood as physical causes of behaviour, influencing persons in a reflex-like manner. The difference between the folk psychological – and legal – explanation of action and its scientific counterpart is aptly described by John Searle (2002: 33):

> Once we have the possibility of explaining particular forms of human behavior as following rules, we have a very rich explanatory apparatus that differs dramatically from the explanatory apparatus of the natural sciences. When we say we are following rules, we are accepting the notion of mental causation and the attendant notions of rationality and existence of norms (...). The content of the rule does not just describe what is happening, but plays a part in making it happen.

The content of the rule, understood as a reason for action, can be grasped only from the internal point of view, i.e., from the point of view of the person who follows the rule or deliberates whether to follow the rule. It is not possible to fully grasp its content from the external point of view, from the point of view of the third-person observer. From this perspective, one can only determine whether a person acts in accordance to a rule. The internal point of view, as the proper perspective to assess the phenomenon of law, has been famously proposed by Herbert L. A. Hart. Taking the internal point of view, namely “the practical attitude of rule acceptance”, results in a common sense analysis of the psychological mechanisms responsible for rule-following. It clearly rests on the assumption that people who actually follow legal rules have the capacity to recognize them and act on their grounds. In other words, it is assumed that reasons genuinely influence thought and behaviour.

### 3 THE LEGAL IMAGE OF MAN FROM THE SCIENTIFIC PERSPECTIVE

The reliability of the evidence pertaining to the causes of thought and behaviour provided by taking the internal point of view has been challenged by science. According to the contemporary scientific image of man, the real causes of thought and behaviour are, at least to a great extent, unavailable from the first-person perspective. A significant amount of scientific evidence suggests that adapting this perspective often leads to confabulatory explanations. In many cases, when people provide folk psychological explanations of their behaviour, such reports are false. It is not merely a case of the fallibility of memory. The problem is that such explanations of behaviour tend to be made up on the spot.

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7 Shapiro 2006: 1157.
and have very little or nothing to do with actual memories. Confabulation here is understood as a creative filling in, utilized in the social context.

To some extent, folk psychology can be compared to perception. Under specific circumstances, both cognitive systems produce systematic errors. In the case of perception, the errors in question are visual illusions. It seems, however, that perception is more reliable, since in many cases of visual illusions people are aware of them and, as a consequence, they do not present a serious obstacle to thought and behaviour. On the other hand, confabulations pertaining to the common-sense explanation of behaviour are rarely noticed. One of the reasons for this is that folk psychology operates on the grounds of the inference to the best explanation, and as mentioned, the amount of evidence required to explain behaviour is often too large. In such cases, folk psychologists take shortcuts, such as using the rationality assumption, which nevertheless do not undermine their confidence in the plausibility of the explanation.

Perhaps the most famous example of a scientific theory revealing confabulations in the folk psychological explanation of behaviour is Daniel Wegner’s theory on the illusion of conscious will.\(^8\) It is well-known mainly because of its scope and the amount of evidence gathered in support of it. According to this theory, the feeling of acting consciously is always an illusion, and from the internal point of view there is no access to the actual causes of thought and behaviour. Wegner’s theory is based on the widely accepted, scientific understanding of the mind, according to which the mind can be divided into two basic parts. One is conscious and controllable and the other is unconscious and automated. According to Wegner, the former operates independently of the latter, and the latter contains the mechanisms that actually cause thought and behaviour. However, the conscious mind creates an experience of conscious will that accompanies some of our actions. This experience is not a part of the causal chain leading to the action, but it generates an illusion that the conscious will influences the action.

Wagner points to three principles that should be satisfied for the experience of illusion of conscious will to emerge: the priority principle, the consistency principle, and the exclusivity principle. The priority principle pertains to the window of time in which the action and the accompanying conscious thought should happen. According to this principle, if the conscious thought connected with an action appears before the action, the experience of conscious will is stronger compared to the situation when the conscious thought appears after the action.\(^9\) As a general matter, the experience of conscious will is weaker the longer the time between the action and accompanying conscious thought. One experiment, the results of which support the priority principle, is

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\(^8\) Wegner 2002.
the experiment carried out by the Belgian psychologist Albert Michotte. In this experiment, participants were shown objects that move according to different patterns. In some cases, one object moved to close proximity with the second object, which when the objects appeared to touch, moved in the opposite direction. In other cases, the second object moved only after some time had passed after being touched by the first object. The results clearly suggested that the participants perceived the first object as the cause of the movement of the second object only in the first case.

According to the consistency principle, the experience of conscious will emerges when the content of the conscious thought is consistent with the action perceived to be connected with the thought. Particularly, when the person forms an intent of doing something and then actually does it, conscious will is distinctly experienced. In support of the consistency principle, Wegner points to the phenomenon of creative insight. Despite the fact that creative insight can result in solutions to difficult problems, often tackled over a long time, these results are described as ideas that happen to a person, not as ideas arrived at by one’s self. Creative insight has been described in this manner by many scientists, including by Oliver Wendell Holms, Albert Einstein or Henri Poincare. When creative insight occurs, the experience of conscious will is weak or non-existent.

The exclusivity principle states that for the experience of conscious will to emerge, the conscious thought pertaining to an action should be perceived as its sole cause. When the person perceives other phenomena as influencing the action, the experience will be significantly weaker. The phenomena ‘competing’ with conscious thought include emotions, habits or actions of other persons.

Wegner’s theory may be regarded as a somewhat weak argument against the plausibility of the folk psychological explanation of behaviour, at the centre of which is the assumption that conscious reasons are actual causes of much of our thinking and acting. After all, given its efficiency, it is difficult to imagine that the core assumptions of folk psychology are mistaken. Therefore, resistance to the above evidence is a natural reaction of the mind and it can be compared to the reaction to many visual illusions. For instance, despite the fact that a person knows that the shafts of two arrows are of the same length, she will perceive the shaft of the one with the fins directed outward as longer than the shaft of the one with the fins directed inward. It will be argued, however, that the some of the far-reaching conclusions Wegner draws from the experimental work are unjustified. On the other hand, the sceptical argument toward the internal point of view explanation of behaviour, which is based on experimental research, does succeed to some extent.

It is worth mentioning that Wegner’s theory is only one of many scientific examples undermining the reliability of introspection in the context of the explanation of thought and behaviour. Theories and evidence from distinct areas of empirical inquiry support the conclusion that people often confabulate theories when they think about the mind and behaviour from the first-person perspective. The locus classicus of the research in this domain is a 1997 paper entitled, “Telling more than we can know: Verbal reports on mental processes” by Richard Nisbett and Timothy Wilson. The paper presents a plethora of experimental work supporting a sceptical stance toward the reliability of a first-person perspective explanation of behaviour. One striking example pertains to persons suffering from insomnia.\textsuperscript{12}

The researchers, Richard Nisbett and Michael Storms, asked participants to write down the time they went to bed and the time when they finally fell asleep. After a couple of days of this routine, the first group of participants (the “arousal” group) were given placebo pills to take 15-minutes before going to bed. They were told that the pills will cause faster heartbeat, irregular breathing, increased body temperature and alertness – all typical symptoms of insomnia. The second group of participants (the “relaxed” group) were told that the pills would have opposite effects: slower heartbeat, regular breathing, decreased body temperature, and a reduction in alertness. The researchers anticipated that the participants from the arousal group would fall asleep faster after taking the pill, because they will unconsciously attribute their symptoms of insomnia to the pill and not to their condition. On the other hand, the participants in the relaxed group were not expected to fall asleep faster, because despite the taking pill, their symptoms of insomnia would not lessen. As a consequence, they will unconsciously interpret the situation as them suffering from a particularly severe insomnia. Their predictions were confirmed: the participants in the arousal group fell asleep 28% quicker when they took the pill and the participants in the relaxed group fell asleep 42% slower.

What is especially interesting is that there was a second stage of the experiment. The subjects in the arousal group were informed that they fell asleep quicker after taking the pill and the subjects in the relaxed group were informed that they fell asleep slower after taking the pill. When the participants in both groups were asked for the explanation of this fact, the subjects from the arousal group posited, for instance, that they usually fall asleep quicker at the end of the week or that they had a difficult exam they were relieved to have passed. Subjects in the relaxed group provided justifications in a similar manner. All of the participants in the experiment confirmed that after taking the pill they stopped thinking about it and they strongly disagreed with the explanation of

\textsuperscript{12} Storms & Nisbett 1970: 319-328.
their behaviour provided by the researchers, which referred to the workings of the unconscious interpretative mechanisms.

Assessing the above evidence from the perspective of the legal image of man, it is clear that experiments of this kind cannot indicate that people are unable to act in the light of and on the grounds of reasons, or that there are no reasons at all, but only that there are situations where the reasons we think are the causes of our actions are not genuine causes of these actions. In the discussed experiment, it seems that the subjects lacked the ability to react to reasons because the cognitive mechanisms responsible for their verbal responses in the second stage of the experiment were clearly distinct from the cognitive mechanisms that actually operated and caused the reduction or the intensification of their insomnia. Furthermore, the participants were unable to recognize reasons because they did not believe the experimenters when they were told about the experimental hypothesis and the postulated attribution process. However, at most this suggests that they lacked rationality only in the context of the experimental situation, not that they lacked rationality *tout court*.

Even in the context of the experimental situation, one can argue that the subjects were, to some extent, rational. For instance, note that the explanation for the experimental evidence provided by the researchers – the evidence that the subjects in the arousal group usually fell asleep quicker and why the subjects in the relaxation group usually fell asleep slower – gets off the ground by granting people the ability to assess beliefs and reason unconsciously. Such an explanation assumes that the subjects in question were able to respond to reasons, but on the unconscious, automatic level. It should be underlined that in the paper by Nisbett and Wilson, the authors only claimed that the verbal reports of the subjects were based on rationalization, theorizing, or self-interpretation and that the reports in questions are an unreliable source of insight into the workings of the implicit cognitive processes. Still, they suggested that this fact does not exclude the possibility that people “are often right about the causes of our judgments and behavior.”

Despite the fact that experimental evidence of the kind cannot falsify the core folk psychological assumptions, it should give rise to a wide-ranging scepticism toward the reliability of this perspective on the mind and its influence on behaviour. Scientific evidence suggests that when mind-reading, lay people tend to assume that they see things in an unmediated and objective manner. Furthermore, in some cases they even dismiss those who disagree with their commonsense insights as ignorant or biased. Whereas in reality, they are the ones who are mistaken as to the actual psychological mechanisms that generated the behaviour in question. This tendency may be regarded as a form of

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cognitive illusion, which in the psychological literature is usually described as the "introspection illusion," \(^\text{14}\) resulting in confabulatory explanations.

Scepticism toward the internal point of view leads, in a very straightforward manner, to scepticism toward the legal image of man. This scepticism is the subject of heated debate about the relation between the law and the sciences. As was noted at the beginning of this paper, there are at least three strategies for resolving the conflict between the legal and the scientific images of the man: revisionism, authonomy, and integrationism. These strategies will be critically assessed in what follows.

4 REVISIONISM

Revisionists see folk psychology as founded on false presuppositions. These assumptions pertain to various characteristics of the mind, which from the scientific perspective, are supposed to be untenable. Consequently, the legal image of man should be revised and made coherent with its scientific counterpart. The revision is significant – in some cases, it will lead to the elimination of some of the core presuppositions of folk psychology.

One of the most popular, folk psychological assumptions challenged by revisionists is the view of the mind as the ‘uncaused causer’. According to this view, the mind is unique compared to other natural phenomena because it has itself as a sole, or the most important, cause. In other words, the mind is autonomous. When people make judgments or decisions, they follow rules that they themselves find reasonable. Thus, the explanation of mental phenomena cannot be reduced to an explanation of physical phenomena, such as a neuroscientific explanation. Explanations of behaviour in terms of reasons, i.e., an explanation of behaviour from the internal point of view, assumes that reasons are recognized and acted on by the person. Factors independent from her reasoning, such as her brain activity, should not be included in the explanation, as it will cease to be the explanation from the internal point of view.

A widely discussed example of revisionism can be found in a paper by two psychologists, Joshua Greene and Jonathan Cohen (2004: 1781), claiming that:

As more and more scientific facts come in, providing increasingly vivid illustrations of what the human mind is really like, more and more people will develop moral intuitions that are at odds with our current social practices (...) Neuroscience has a special role to play in this process for the following reason. As long as the mind remains a black box, there will always be a donkey on which to pin dualist and libertarian intuitions (...) What neuroscience does, and will continue to do at an accelerated pace, is elucidate the "when," "where" and "how" of the mechanical processes that cause

\(^{14}\) Aronson, Wilson, Akert & Sommers 2015: 128.
behaviour. It is one thing to deny that human decision-making is purely mechanical when your opponent offers only a general, philosophical argument. It is quite another to hold your ground when your opponent can make detailed predictions about how these mechanical processes work, complete with images of the brain structures involved and equations that describe their function (…) At some further point (…) people may grow up completely used to the idea that every decision is a thoroughly mechanical process, the outcome of which is completely determined by the results of prior mechanical processes. What will such people think as they sit in their jury boxes? (…) Will jurors of the future wonder whether the defendant (…) could have done otherwise? Whether he really deserves to be punished (…)? We submit that these questions, which seem so important today, will lose their grip in an age when the mechanical nature of human decision-making is fully appreciated. The law will continue to punish misdeeds, as it must for practical reasons, but the idea of distinguishing the truly, deeply guilty from those who are merely victims of neuronal circumstances will, we submit, seem pointless.

Greene and Cohen raise two interesting issues in the context of the relation between the legal and the scientific images of a man. The first is the mechanical understanding of the mind by science and its apparent incompatibility with its folk psychological understanding. The second is the possible consequences of this incompatibility, which pertain to, *inter alia*, the practices of holding people legally responsible. It should be noted that these consequences are drawn on the basis of an analysis of a different aspect of the assumption that the mind is the ‘uncaused causer’ than the aspect considered in this paper. In this paper, the main focus is the distinctiveness of the folk psychological explanation of behaviour, i.e., reason explanation. Greene and Cohen on the other hand, discuss the common-sense ontology of the mind and argue that it includes the presupposition of psychophysical dualism and the presupposition of persons possessing libertarian free will.

Both aspects are clearly connected: the mechanistic mode of explanation is at odds with both reason explanation and the libertarian free will. This connection is not accidental, as the view that reasons are genuine causes of thought and behaviour is at the core of dualism and libertarianism, and more generally, at the core of the legal image of man.

In short, the mechanistic explanation assumes that complex phenomena can be explained by reference to how their parts work. It is a type of causal explanation, meaning that mechanisms are understood to be physical phenomena that consist of parts coming into contact with each other. Further, it is also a type of explanation that can usually be divided into levels. For instance, in neuroscience, which is perhaps a paradigmatic example of a mechanistic science, the brain is understood to be a complex mechanism and its activity should be explained at various, interconnected levels, for example, the level of the whole organ,
along with the cellular, of molecular, and of atomic levels. Furthermore, similar to all types of scientific explanation, it is also an explanation from the external point of view - from the perspective of a detached observer. When the behaviour is explained mechanically, reasons do not fall out of the picture. As mentioned, reason explanation is causal in that reasons are understood as genuine causes of thought and behaviour. On the mechanical account, however, reason explanation loses its authority and becomes only one of the many levels of the explanation of behaviour.

As for the possible consequences of the conflict between folk psychology and the science of the mind, revisionists sensibly argue that science trumps common sense and, in such cases, that the practices pertaining to dubious assumptions of folk psychology should be revised. An example of such a situation is the practice of holding people morally and legally responsible. If the retributive justification of punishment is founded on the idea that the mind is qualitatively distinct from the body and that persons are ‘uncaused causes’, due to their abilities to act on the ground of and in the light of reasons, then the retributive justification should be discarded. Furthermore, the practices of holding people responsible should change to reflect the utilitarian justification of punishment. Scientific evidence clearly suggests that even when people reason, their reasons are not the sole causes of their judgments and decisions. There are inaccessible causes from the internal point of view.

It seems that the overarching assumption made by revisionists pertaining to reasons – perhaps also pertaining to folk psychology – is that they are only instrumentally important. According to revisionists, reasons are not genuine causes of thought and behaviour. After all, one of the core assumptions of the folk psychological conceptual network is the already mentioned ‘uncaused causer’ assumption, which is supposed to be an illusion. And reason explanations are understood here to depend on this assumption. Nevertheless, reason explanation should not be abandoned as it is useful from the practical point of view. For instance, at present it is difficult to imagine what the practice of holding one responsible would look if the reason explanation of behaviour was discarded.

There are undoubtedly differences between the mechanistic explanation and the explanation based on reasons. However, these differences are not as significant as the revisionists claim. Greene and Cohen’s conclusion is problematic because it is not self-evident that folk psychology assumes dualism and libertarianism. In fact, in the experimental research on this subject, there is a lack of consensus as to the content of the common sense assumptions about these doctrines. Some experimental results suggest that dualism and libertarianism are the default views of lay people. Still, there are experiments suggesting otherwise, for example, that people are compatibilists by nature and do not think of

the mind as something radically distinct from the body. Because of these difficulties, it seems prudent to discuss the threat of the mechanistic view of the mind to folk psychology in the context of the reason explanation of behaviour, as reasons understood as causes of thought and behaviour are important for both libertarianism and compatibilism.

Revisionism may be a tempting position in the context of the relation between the legal and the scientific images of a man. After all, instrumentalism is a well-grounded position, accepted in connection to various phenomena. The problem with this position, however, is that it seems to be inconsistent. This view accepts that science is unlikely to find objects that resemble reasons, for instance in the brain of a person. Still, despite their absence from the scientific ontology, people are permitted to ascribe reasons in legal and everyday contexts. In other words, the revisionist seems to say that it is useful to posit mental states in the long run and all things considered, but mental states are not real. Here, a pressing question lurks: why would reason explanations be useful and appropriate for practical purposes if they are not real? It seems that phenomena really are explanatory only if they are real, or at least as real as it gets.

Furthermore, irrealism in respect to reasons undermines core folk psychological assumptions present in the law. It seems that many of the actions for which people deserve to be praised, blamed, rewarded, or punished are the product of mental causation, and at least in principle, people are genuinely responsive to beliefs and desires. Only such intentional agents can violate expectations of what they owe to others. If there are no mental states, then explanations of behaviour based on the legal image of the man are only superficial or illusionary and cannot really justify attributions of legal responsibility. All of this suggests that revisionism is not a viable option in connection to the relation between the legal and the scientific images of the man.

5 AUTONOMY

According to the proponents of the autonomy of folk psychology, there is a radical discrepancy between the common-sense explanation of behaviour and its scientific counterpart. On this view, reasons are genuine causes of thought and behaviour (i.e., instrumentalism is rejected), but they are different from the causes featuring in empirical explanations. The uniqueness of reasons boils down to the already mentioned fact that when one acts in the light of and on the grounds of reason, one follows rules of rationality. An example of such a rule of rationality is *modus ponendo ponens*: when a person believes that \( p \) and \( q \), and she believes that \( p \), she should believe that \( q \). Moreover, according to this view one should not only believe that \( q \), but also tend to believe that \( q \) – at least if the psychological mechanism responsible for belief formation operated properly.
The interesting fact is that modus ponendo ponens actually seems to be the rule of rationality that people find intuitive not too cognitively demanding in application. To be at least minimally plausible, the hypothesis of the intuitive grasp of logical relations between propositions should be very weak and pertain to only to a limited number of these relations. This is because, in general, people have difficulties with thinking logically. For instance, these difficulties are connected with the application of modus tollendo tollens, a rule of rationality not considerably different from modus ponendo ponens – at least form the logical point of view.16

In the philosophical literature, reasons such as beliefs and desires are usually described as ‘propositional attitudes’, because they are understood to be psychological relations between persons and propositions. John McDowell, one of the philosophers who defend the autonomy of folk psychology, describes the difference between folk psychology and the science of the mind as follows (McDowell 1985):

> The concepts of the propositional attitudes have their proper home in explanations of a special sort: explanations in which things are made intelligible by being revealed to be, or to approximate to being, as they rationally ought to be. This is to be contrasted with a style of explanation in which one makes things intelligible by representing their coming into being as a particular instance of how things generally tend to happen.

On this view, the goal of folk psychology is not to explain, but to rationalize behaviour – to provide sufficient premises justifying the behaviour. As mentioned, folk psychologists assume rationality when explaining behaviour. Rules of rationality, however, do not provide a standard causal explanation of how the mind works because they are not understood as laws governing thought and behaviour. Despite the fact that there is some empirical evidence that people tend to accept some rules of rationality, it seems implausible that rules of rationality generally (e.g. rules of logic or rules of probability theory) actually describe the transitions between mental states and their influence on behaviour. From the scientific perspective, it seems that people think according to simple, fallible rules, such as the much discussed cognitive heuristics. These heuristics only approximate the rules dictated by various normative theories of reasoning. If people do not, in everyday reasonings, actually apply the rules of rationality, then it seems implausible to hypothesize that in the explanation of mind, these rules may be a part of explanans. This is why, according to the proponents of the autonomy of folk psychology, it is better to describe common sense explanation of behaviour as ‘rationalization’.

This view is quite popular in the discussion pertaining to the relation between law and science. A variant of this view of is defended by two legal scholars, Michael Pardo and Dennis Patterson, while discussing ‘neurolaw’ – a recently

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popular current in legal research.\textsuperscript{17} Proponents of neurolaw argue that the sciences will have a significant impact on law. Some of them defend views similar to revisionism.\textsuperscript{18} However, Pardo and Patterson argue that the internal point view is autonomous in regard to the scientific explanation of behaviour. They defend a thoroughly folk psychological criteria for the ascription of reasons, at the core of which is the observed behaviour of the person. Their main argument is that the behavioural criteria provide the measure for the ascription of reasons and not its mere measurement. The measurement could be provided by neuroscience – at least when it becomes adequately advanced. Thus, sciences of the mind and the brain can only provide evidence that in certain situations some folk psychological concepts, such as the concepts of belief or desire, apply. Pardo and Patterson do not claim, therefore, that science is irrelevant for the law, because in some situations it will provide better evidence pertaining to the mental states of the person than the folk psychological analysis of behaviour. Still, they stress the primacy of the internal point of view in the explanation of behaviour, at least for the purposes of the law. Psychological concepts such as beliefs, desires, memories, or intentions apply only at the level of reason explanations, i.e., at the level of the whole person. They do not apply at the level of neuroscientific explanation.

Pardo and Patterson are certainly right to underline the importance and distinctiveness of the folk psychological level of behaviour explanation. It seems difficult to imagine what the legal image of man would look like if the conceptual tools of folk psychology were abandoned. At present, scientific theories are unable to provide any counter-proposals in this regard. Still, these philosophers of law overstate their claim that folk psychology provides the privileged criteria of ascription of folk psychological concepts. There are many levels of explanation of the mind and behaviour and all of them can be crucial in the everyday and, especially in the legal, context. It is true that in many cases the behavioural criteria of psychological categories will suffice. However, there are situations in which, from the internal point of view, it will be impossible to correctly ascribe psychological concepts. Introspective confabulations provide strong evidence in support of this claim. In such situations, it is necessary to acknowledge levels of explanation that are beneath the level accessible to consciousness.

An instructive example of an improvement of a folk psychological category due to scientific evidence pertains to the concept of memory. The folk psychological concept of memory is explicitly discussed by Pardo and Patterson in the context of their main thesis. They claim that it is nonsensical to ascribe memories to the brain, since only people can remember. Amusingly, it is the study of the lesions of the brain that led scientists to differentiate between different types

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\bibitem{Pardo & Patterson 2013} Pardo & Patterson 2013.
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of memory, such as procedural, semantic, and working memory. Scientific evidence suggests that distinct parts of the brain are correlated with these types of memories. It is not clear whether these types of memories can be differentiated using only behavioural criteria. Memory provides a revealing example of the explanatory strategy of the contemporary science. It is not that the folk psychological concepts are explained away – they are still prominent in the scientific, mechanical explanations of behaviour –, but they are further developed accordingly to the prevailing evidence.

Pardo and Patterson’s general strategy can be described as ‘conceptual conservatism’. The first goal of this strategy is to preserve, as far as possible, the present content of folk psychology. The second goal is to save the primacy of folk psychology for the legal worldview. It is claimed that, at least for the practical purposes of the law, the ordinary conceptual scheme pertaining to the mind should reign supreme. However, the claim that this conceptual scheme is independent from the scientific image of man seems to be just a modern version of Cartesian dualism, despite the fact that the authors of these claims explicitly reject Cartesian dualism. Moreover, this a priori foundationalism is undermined by experimental evidence, for instance, the evidence pertaining to introspective confabulation. To this extent, folk psychology should be modified and, as a consequence, it ceases to be the measurement for the ascription of reasons, at least on their standard, causal understanding. This evidence strongly suggests that the internal point of view does not have authority over other modes of explanation when it comes to behaviour in the legal context. Taking the internal point of view can lead to mistaken analyses. To sum up, against the autonomy view of Pardo and Patterson, one can recall the following words of one of the most famous naturalist philosophers, David Hume (1748/1999: 208):

... could such dogmatical reasoners become sensible of the strange infirmities of human understanding ... such a reflection would naturally inspire them with more modesty and reserve, and diminish their fond opinion of themselves, and their prejudice against antagonists. ... And if any of the learned be inclined, from their natural temper, to haughtiness and obstinacy, a small tincture of [scepticism] might abate their pride, by showing them, that the few advantages, which they may have obtained over their fellows, are but inconsiderable, if compared with the universal perplexity and confusion, which is inherent in human nature. In general, there is a degree of doubt, and caution, and modesty, which, in all kinds of scrutiny and decision, ought forever to accompany a just reasoner.

6 INTEGRATIONISM

Like the autonomy view, integrationism presupposes that reasons are genuine causes of thought and behaviour. But the integrationist, like the revisionist, rejects the claim that reasons are a fundamental, independent aspect of the structure of the world. The integrationist claims that mental phenomena derive from – or supervene on – non-mental facts and properties of the world.

The proponent of the integration of folk psychology with cognitive science might not be optimistic about the perspectives of finding a conceptual bridge between the legal image of man and its scientific counterpart. The pessimistic integrationist might think that we're still far from understanding folk psychology and its relation to the architecture of the mind, or that the relevant understanding will always remain beyond our reach. This could be because mental phenomena are too complicated or we lack the ability to develop the right conceptual repertoire. Still, the integrationist will resist the fundamental claim that unites the revisionist and the autonomist, namely, that anyone involved in the project of explaining how facts about the organization of behaviourally complex organisms, and facts about our actual practices of interpretation and ascription of propositional attitudes are connected, is deeply mistaken. According to the integrationist, there is at least in principle a solution to this problem, and to solve it one needs to look at the available evidence.

The rejection of integrationism is usually founded on the argument that it is a desperate approach for finding the linkage between the two images of a man. After all, every previous attempt failed. In recent years, the view that the folk psychological model of the mind imperfectly corresponds to its actual architecture has proven questionable. Traditionally, folk psychological mental states have been understood to have a strong connection to language – they are linguistically structured and, as a consequence, only language users possess them. If a creature behaves as if it possessed beliefs and desires, but it cannot talk about them, it is widely agreed that its behaviour is not genuinely caused by mental states. Only when the mind of a creature is influenced by language, which enables it to be conscious of mental causes, is it intelligent enough to be able to recognize reasons.

That the connection of thought and language has been prioritized should come as no surprise. After all, natural language is the only tool available to folk psychologists to examine mental states. These states are purely theoretic and postulated by the common sense theory of mind. So, despite the fact that reasons are connected with both speech and action – one can read another person's reasons from what she is saying and doing – it is the connection with speech that has been regarded as crucial.
The presupposition that the connection between thought and language is constitutive for reasons is also evident in the argumentation of the proponents of the autonomy of folk psychology. It seems that they view the analysis of the natural language as the privileged mode of explaining the mind and human behaviour. This view was very influential several decades ago, perhaps due to the impact of Wittgensteinian meta-philosophy. However, this doctrine is presently outdated. For most contemporary and empirically oriented philosophers and scientists, the dispute regarding whether mental states are linguistically structured is of no significant importance due changes in the conceptual environment of the research on the mind. Nowadays, mental states are rarely regarded as sentences in the language of thought – a hypothesis forwarded by Jerry Fodor that has been driving the research within cognitive scientists since its inception. It seems that only the less empirically informed philosophers claim that the past arguments of analytic philosophers are as strong as they were before.

The main problem with the classical approach is that it is of no use to the study of the part of the mind unavailable for introspection. This is especially important given that it is the most important part of the mind in terms of its influence on thought and behaviour. A systematic and interesting insight into the workings of the automatic, unconscious, and fast operating part of the mind is possible only through experimental research. The results of this research can be, from the folk psychological perspective, altogether arbitrary, as with the research on introspective confabulation. And the phenomenon of introspective confabulation is only the tip of the iceberg of the automaticity revolution which has swept cognitive science in recent years.

In this context, it is worth discussing the empirical evidence for other important, folk psychological notions, namely desire and belief, which undermine their traditional understanding. Desire is usually understood as connected with an evaluation of a state of affairs. A person who desires something, seeks to match the world with the content of their desire, and this content is regarded by that person as a reason for action – at least momentarily. However, there is evidence suggesting that the connection between desire and evaluation does not hold. The evidence in question comes from neuroscience and it suggests differentiating between what the person wants and what she likes. Evaluation as a reason giving process, is connected only with likes, since wants pertain to the incentives of the person. Still, the concept of desire is usually understood to be connected with both mental states. In the light of this research, it is implausible to infer a person’s desire – her reason for action – only on the basis of what has high incentive for her. In sum, the discussed research suggests that the concept of desire pertains to two different types of mental states, and only ‘liking’ seems to clearly correspond to the folk psychological meaning of this concept.

Empirical research suggests a similar differentiation pertaining to beliefs. Since its inception in the late 1970’s, researchers have generally assumed that typically only children 4-years and older can have beliefs. This is because younger children fail to pass the so-called ‘false-belief task’ – a task designed to test whether a child understands that other people may represent the world incorrectly. In the classical version of the test, the mindreading capacity of a child is evaluated on the basis of their answers to the questions of the experimenter. Younger children usually do not pass this test because they cannot yet speak or, when they already do, they usually automatically attribute their beliefs to other people, even if it is clear that others could not know what they know. Recently, however, this general assumption pertaining to the onset of belief attribution ability has changed. An important study from 2005 has shown that even children younger than 2 years old behave as if they understood what beliefs are. This study was based on a non-linguistic version of the false-belief task, focused on measuring the eye movement of participating children. Some have suggested that simple, lower level, non-linguistic beliefs do not transform into complex, higher level, and linguistic beliefs, but that as children reach the age of 4, the lower level belief system remains operative and its functioning can be perceived when studying the adult mind.

The goal of the above discussion is to argue that the folk psychological categories are not autonomous. In other words, that the claim that they can be investigated only from the internal point of view is false. As the empirical evidence suggests, there are types of beliefs, desires, or memories that are largely inaccessible from the internal point of view. Their characteristics may seem arbitrary from the internal point of view, for example, the account of low level beliefs which are language independent. Still, these mental states remain causes of thought and behaviour. Taking them into account in the legal image of man, and thus integrating it with its scientific counterpart, is one of the greatest challenges for integrationism. However, this view has significant advantages over the revisionism and the autonomy views in that it abandons their most radical and implausible components.

Taking into consideration the scientific image of man, according to which the mind consists in at least two basic structures – one accessible and the other inaccessible from the first-person perspective –, would constitute a first step in the integration of law with science. The second step would be to develop a model of such an integration, allowing for a global integration of law and science. Some insights regarding how such model may look, come from cognitive science – an interdisciplinary endeavour aimed at explaining the mind, integrating such different disciplines as philosophy, psychology, neuroscience, anthropology, artificial intelligence, and linguistics. In cognitive science, the general idea

for how to integrate different types of evidence boils down to a differentiation between different levels of explanation. These levels may be more general, investigating the mind or the person as a whole, as in philosophy or psychology. However, they can also be more concrete, as in neuroscience or linguistics, focusing on a small aspect of the question how the mind (or the brain) works. What is important is that the levels of explanation are both interconnected and autonomous. The third step is local integration – pertaining to selected issues at the intersection of the legal and the scientific images of a man. These issues may include the problem of including the above mentioned evidence suggesting a differentiation between various types of folk psychological mental states usually regarded as homogeneous into the legal research.

7 CONCLUSION

This paper argued that the discrepancy between the legal and the scientific image of man stems from the folk psychological roots of the former. More precisely, a crucial component of the explanation of behaviour from the legal perspective, which is especially difficult to take into account from the scientific perspective, are reasons. Reason explanation assumes the rationality of the person whose behaviour is the target of the explanation, and this assumption is implausible in the light of empirical evidence. One can identify at least three strategies for tackling this issue: revisionism, the autonomy view, and integrationism. Only integrationism provides a reasonable option, as the first two proposals are too far-reaching. As to revisionists, they seem to understand reasons instrumentally and this idea is difficult to accept in the legal context, for example, in the context of the ascription of legal responsibility. Proponents of the autonomy view, on the other hand, argue for an independence of folk psychology from science, an idea inconsistent with the empirical evidence. Integrationism is not only a naturalistic view as it does not shun the empirical evidence, but also capacious enough to truly take into account phenomena significant for the law. Despite its advantages, however, integrationism has its difficulties, one of the most important being the construction of a conceptual bridge between the legal image of man and its scientific counterpart.

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Bibliography