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The legal self: Executive processes and legal theory ☆

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ABSTRACT

When laws or legal principles mention mental states such as *intentions* to form a contract, *knowledge* of risk, or *purposely* causing a death, what parts of the brain are they speaking about? We argue here that these principles are tacitly directed at our prefrontal executive processes. Our current best theories of consciousness portray it as a workspace in which executive processes operate, but what is important to the law is what is done with the workspace content rather than the content itself. This makes executive processes more important to the law than consciousness, since they are responsible for channelling conscious decision-making into intentions and actions, or inhibiting action. We provide a summary of the current state of our knowledge about executive processes, which consists primarily of information about which portions of the prefrontal lobes perform which executive processes. Then we describe several examples in which legal principles can be understood as tacitly singling out executive processes, including principles regarding defendants' intentions or plans to commit crimes and their awareness that certain facts are the case (for instance, that a gun is loaded), as well as excusatory principles which result in lesser responsibility for those who are juveniles, mentally ill, sleepwalking, hypnotized, or who suffer from psychopathy.

1. Legal agency and the brain

There is currently a huge gap between the understanding our legal system has of the human self as rational, responsible decision-maker and the understanding of the human brain offered by neuroscience. The civil and criminal legal systems refer to the mind and mental processes when they speak of peoples' intentions, plans, motives, and beliefs. Not all mental states or processes are equally important to the law, however. Our contention in this article is that a close reading of legal principles shows that when they direct attention to the mind, they focus primarily on the brain's prefrontal executive processes. Executive processes are the seat of a person's decision-making, intention-forming, planning, and behavior-inhibiting processes, all of which are absolutely crucial to his legal and ethical being. Hence we call the set of executive processes "the legal self."

We will argue that neuroscience is an important tool for understanding the connection between mental processes and legal, or illegal, actions. We will also begin to establish correspondences between knowledge of the brain and established legal principles. This project can ultimately result in more just and appropriate verdicts, by clarifying the nature of human intention, planning, and decision-making and their disorders, especially those that are beyond the normal person's ability to correct. The brain's executive processes have been repeatedly singled out, albeit tacitly or non-explicitly, as the grounds of agency and responsibility by legal theorists and the law itself. We will argue that when referring to mental states and processes associated with illegal actions, the law is referring to these executive processes in the same way that a person who

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refers to water is also referring H_2O molecules, whether she knows it or not. Legal agency, including the capacity to make contracts and commit crimes, requires one to be able to form certain mental states and to act upon them. Similarly, intentions are vital to the formation of a contract: contracts are the legal crystallization of mutual intentions. Legal questions about agency, intent, and responsibility involve our conceptions of ourselves and of how our minds and our actions relate. The legal self is important, both for individuals who possess them, as well as the societies in which they are embedded.

We will begin with an examination of the views of legal scholar Stephen Morse, according to whom the legal system focuses on consciousness and rationality. Our response to this is that the focus is more on our executive processes than on consciousness itself. Our current best theories of consciousness portray it as a workspace in which executive processes operate (Baars & Steven, 2005), but what is important to the law is what is done with the workspace content rather than the content itself. This makes executive processes more important to the law than consciousness itself, since they are responsible for channelling conscious decision-making into intentions, plans, and actions, or inhibiting those actions. On the topic of rationality, our views are closer to Morse, but we will argue that both our everyday and legal concepts of rationality can be captured by the concept of proper functioning of our executive processes. Section three details the current state of our knowledge about executive processes, which consists primarily of information about which portions of the prefrontal lobes perform which executive processes. Then our final section, section four, contains several examples in which legal principles can be understood as singling out executive processes, including principles regarding defendants' intentions or plans to commit crimes and their awareness that certain facts are the case (for instance, that a gun is loaded), as well as principles about the competence and/culpability of persons who are juveniles, mentally ill, sleepwalking, hypnotized, or who suffer from psychopathy.

2. The legal self as the rational self

A survey of American jurisprudence over the last two centuries reveals a continuing articulation of legal agency in commonsense psychological terms (Blumenthal, 2007). Legal agency, including the capacity to make contracts, and the capacity to commit a crime, require that one be able to form certain mental states and act on them. For example, one must be capable of forming the intention to create a binding last testament or will, and then knowingly complete the legal procedures to formalize those intentions. Susan Blummenthal calls these minimal psychological requirements for legal agency the 'default legal person': "To be sure, the default legal person was a shifty character, fading into the background of many judicial opinions and appearing in different guises as he moved across doctrinal fields.... But all the while, and arguably to the present day, the default legal person has served the same basic function: establishing the relationship between mental capacity and legal responsibility in any given case" (Blumenthal, 2007)(1149). Blummenthal argues that the law tends to elucidate these psychological or mental capacities in terms of consciousness and reason. "Apparent rationality" is not sufficient for legal capacity; in addition, an action must have been the product of the actor's conscious choice (Blumenthal, 2007)(1175). "[T]he default legal person...was capable of understanding the nature and consequences of his actions, and freely determining how to proceed on the basis of this knowledge. An individual shown to be in possession of these basic mental attributes would be held accountable for his actions..." (Blumenthal, 2007)(1175).

Morse – whose work focuses on the intersection of law and psychology – articulates a modern legal self that agrees with Blummenthal's formulation. Morse argues that legal agency is primarily concerned with the ability to reason: that is, to be a legal agent one must be capable of recognizing and acting for good reasons (Morse, 2003, 2006a, 2006b). This capacity for reason is often visible, or apparent, to both the agent and the law via the agent's consciousness. Most obviously, an agent reveals his or her conscious beliefs and desires through speech – verbal or written – and this speech is introduced to the court through witness testimony or written documents. In other cases, a court may be asked to extrapolate from behavioral evidence to a person's conscious states; e.g., in cases where a jury is asked to attribute motive to a criminal defendant from evidence that he was observed purchasing the murder weapon.

According to Morse we evolved conscious rationality precisely because we are social creatures who use this ability in addition to a set of rules to live cooperatively (Morse, 2003)(60). Morse states that "If the criminal law operates by guiding the conscious actions of persons capable of understanding the rules and rationally applying them, it would be unfair and thus unjustified to punish and to inflict pain intentionally on those who did not act intentionally or who were incapable of the minimum degree of rationality required for normatively acceptable cooperative interaction. People who lack the capacity for rational guidance are not morally responsible and should not be held criminally culpable" (Morse, 2003)(61). According to Morse, consciousness itself can be "integrated" or diminished, and can thus indicate a defendant's psychological capacity or incapacity. "Law and morality agree that if an agent's capacity for consciousness is non-culpably diminished, responsibility is likewise diminished" (Morse, 2003). At times, Morse appears to privilege consciousness: he claims consciousness can be diminished either because action without consciousness is not deemed to be action, or because diminished consciousness reduces the capacity for rationality.[1] It is clear, however, that the link between consciousness and responsibility depends upon rationality. Where consciousness is diminished, moral and legal rules fail to provide an agent with reasons for action in the normal way.

[1] Or, it might seem, the other way round: the capacity for rationality is reduced, and this is expressed via a diminished consciousness.