

**“GUILT” AND THE TIME OF CONSCIOUSNESS**

**Maria Fernanda Palma**

Keywords: consciousness – Libet experience – causality of consciousness – naturalistic fallacy – guilt – criminal responsibility – cartesian dualism – Wittgenstein – intention

Abstract: The present study takes the question of how conscience should be understood in matters of legal and criminal liability and the question if conscience is, in effect, precondition for such liability, as a starting point. With respect to this aim, it is analysed to which extent neuroscientific discoveries about (what might be) the psychobiological referents of conscience, on the one hand, and Philosophy of mind and language, on the other hand, can condition both the normative criteria of criminal law and its application. While maintaining that the values and criteria of the law itself should equally be taken into account in the general discussion on conscience, it is reaffirmed that law needs to be open to the questioning of its traditional solutions on the basis of data from Philosophy and Science.

**COMENTÁRIO À SESSÃO NEUROCIÊNCIAS E LIVRE ARBÍTRIO**

**Ricardo Tavares da Silva\***

Palavras-chave: neurociências – livre arbítrio – Direito Penal

Resumo: O presente texto consiste na expressão escrita do relatório da primeira sessão do Colóquio *Mente e Responsabilidade – Filosofia, Ciências e Direito Penal*, com o título *Neurociências e Livre Arbítrio* e cujo painel foi constituído pelos Profs. João Lobo Antunes, Maria Fernanda Palma, Olga Pombo e Nuno Nabais, apresentado no final de todas as intervenções. O mesmo visa, acima de tudo, fazer o levantamento das questões “em cima da mesa”, tanto as que subjazem à sessão, como as trazidas pelos conferencistas e as que surgiram por decorrência destas.

Keywords: neurosciences – free will – criminal law

Abstract: The following text is the written version of the report presented at the end of the first session of the International Conference *Mind and Responsibility – Philosophy, Sciences and Criminal Law*, entitled ‘*Neurosciences and Free Will*’, with talks from Profs. João Lobo Antunes, Maria Fernanda Palma, Olga Pombo and Nuno Nabais. This report maps the most relevant questions about the session subject matter, those posed by the speakers as well as others that arose from the talks.

**“CÉREBRO SOCIAL”, DIVERSIDADE CULTURAL E RESPONSABILIDADE PENAL**

**Augusto Silva Dias\***

Palavras-chave: neurociência – cérebro social – mente ampliada – diversidade cultural – distúrbios psíquicos

## ANATOMIA DO CRIME | ANATOMY OF CRIME

culturalmente condicionados – inimputabilidade

Resumo: No panorama actual da neurociência confrontam-se uma perspectiva “internalista” segundo a qual toda a actividade mental se desenrola de um modo determinístico no interior do cérebro e uma perspectiva “externalista” segundo a qual a actividade mental emerge de um fluxo contínuo entre o cérebro e “próteses” exteriores, que vão desde aparelhos e objectos físicos a recursos simbólicos do mundo da vida. O presente estudo adere a esta perspectiva da “mente ampliada”, cujo acerto procura demonstrar, e louva-se nela para repensar algumas categorias da responsabilidade penal, em especial a inimputabilidade. Cruzando a neuropsicologia com a etnopsiquiatria concluímos que certos distúrbios psíquicos, como o *amok*, o *latah*, ou o *ataque de niervos*, não são adequadamente compreendidos se for ignorado o ambiente etnocultural em que surgem, ou seja, o sentido cultural que alimenta o modo como o paciente os vive e como os outros os interpretam. Se assim é, então a comprovação do elemento biopsíquico da inimputabilidade, em tais casos, não pode dispensar o factor cultural que influencia a experiência psicopatológica do agente.

Keywords: neuroscience – social brain – extended mind – cultural diversity – culturally conditioned psychic disorders – insanity.

Abstract: In the current panorama of neuroscience, two perspectives are in competition: on the one hand, an “internalist” perspective according to which all mental activity unfolds in a deterministic manner within the brain; on the other hand, an “externalist” perspective that claims that all mental activity emerges of a constant flow between the brain and exterior “prosthesis” that range from devices and physical objects to symbolic resources of the life world. The present study joins the perspective of an “extended mind”, trying to demonstrate its appropriateness while relying on this perspective in order to rethink some categories of criminal responsibility, in particular insanity. Crossing neuropsychology and ethnopsychiatry, it is concluded that certain kinds of psychic disorders like *amok*, *latah* or *ataque de niervos* are not adequately comprehended if the ethnocultural environment where they arise is not taken into account, i.e. the cultural meaning that nourishes the way the disorders are experienced by the patients and are interpreted by others. Since that is true, the proof of the biopsychic element of insanity in such cases cannot dispense with the cultural factor that affects the agent’s psychopathologic experience.

## LIBERTAD, CULPABILIDAD Y NEUROCIENCIAS

Diego-Manuel Luzón Peña

Palabras clave: culpabilidad – responsabilidad – libertad – determinismo – neurociencias

Resumen: Es permanente la discusión de si es posible un concepto de culpabilidad como reprochabilidad basada en la libertad del sujeto o si por el contrario no se puede mantener tal concepto de culpabilidad porque la libertad humana no existe o no es demostrable en el caso concreto. Esta última posición, defendida siempre por los deterministas, se refuerza en los últimos tiempos por las tesis de las neurociencias. El trabajo rechaza estas posiciones, que afirman que la actuación del hombre está sometida, como todo en la naturaleza, a la ley de la causalidad ciega y que es un espejismo creer que podemos tomar racionalmente decisiones libres; y defiende por el contrario la posibilidad y conveniencia de que la culpabilidad como último elemento del delito se entienda como reprochabilidad basada en la libertad del hombre en condiciones normales. Pues el Derecho y la Constitución en España como en tantos otros países parten de la libertad humana y el libre desarrollo de la personalidad como axioma o aserto jurídico indiscutible, que a su vez se basa en la autoconciencia que las sociedades y los individuos enen de sí mismos como seres libres y responsables.

## ANATOMIA DO CRIME | ANATOMY OF CRIME

Keywords: guilt – liability – freedom – determinism – neurosciences

Abstract: The discussion is permanent, if it is possible a concept of guilt as reprehensibility based on the freedom of this man, or if contrary cannot be maintained a such concept of guilt, because the human freedom doesn't exist or is not demonstrable in the concrete case. This last position, always defended from the determinists, has been reinforced in the last time through the thesis of the neurosciences. The article rejects these positions, who assert/maintain, that the human conduct, as all in the nature, is submitted/subjected to the blind causal law, and that it's a mirage to believe that we may/can to make rationally free decisions. Contrary, this paper defend the possibility and convenience, that the guilt as lost element of the crime is understood as reprehensibility based on the human freedom in normal conditions. Because the Law and the Constitution in Spain as also in very much other lands starts from the human freedom and the free development of the personality as a indisputable legal assertion and axiom, that/who for your part is based on the self-conscience from the societies and the persons as free and responsible beings.

### ¿LIBERTAD VERSUS DETERMINISMO EN DERECHO PENAL?

**Eduardo Demetrio Crespo**

Palabras clave: determinismo – libertad de voluntad – compatibilismo – neurociencia – exención

Resumen: En el artículo se defiende la existencia de dos niveles relacionados, pero que no deben confundirse, en torno a la "libertad de voluntad y la responsabilidad penal": uno filosófico, que tendencialmente se encuentra en un "punto muerto"; otro jurídico, sometido en los últimos tiempos al desafío de las neurociencias, que afecta a la comprensión actual de la acción humana y la culpabilidad. Se propone una solución respetuosa con la dignidad del ser humano basada en la compatibilidad epistemológica entre dos ideas en principio contrarias, aunque no contradictorias, determinismo y libertad.

Keywords: determinism – free will – compatibilism – neuroscience – excuse

Abstract: In this paper the existence of two levels regarding "free will and criminal liability" that are related, but are not to be confused, is defended: a philosophical one on the one hand, which is tendentially at a standstill, and a legal one on the other hand, which in recent times has been subjected to neuroscientific challenges and that affects the current comprehension of human action and culpability. A solution that respects the dignity of the human being is proposed, based upon the epistemological compatibility between two in principle opposing, though not contradictory, ideas, namely determinism and freedom.

### COMENTÁRIO À SESSÃO DIREITO PENAL E NEUROCIÊNCIAS

**João Matos Viana**

Palavras-chave: neurociência – determinismo – liberdade – culpa e poder agir de outra forma

Keywords: neuroscience – determinism – free will – blameworthy and power to do otherwise

# ANATOMIA DO CRIME | ANATOMY OF CRIME

## MENTE, RESPONSABILIDADE E PSICOLOGIA

Tiago de Sousa Mendes

Palavras-chave: mentalização – responsabilidade criminal – interdisciplinaridade

Resumo: Nas últimas décadas a psicologia tem dado especial relevância ao conceito de mente e à forma como entendemos o comportamento humano como resultado de estados mentais intencionais. A teoria da mentalização, que teve origem nos trabalhos de Peter Fonagy e colaboradores (Fonagy & Luyten; Fonagy et al.; Sharp et al.), estando convenientemente alicerçada em dados da psicologia do desenvolvimento e das neurociências (Fonagy & Luyten; King-Casas et al.), tem-se revelado uma das teorias mais promissoras e relevantes neste campo. O presente artigo aborda a necessidade de se estabelecer pontes interdisciplinares entre o direito penal e a psicologia, argumentando-se que a teoria da mentalização pode ser um importante contributo neste sentido.

Keywords: mentalization – criminal responsibility – interdisciplinarity

Abstract: In the last decades, an increasing interest surfaced in psychology regarding the concept of mind and to the way we make sense of human behavior as a result of intentional mental states. The theory of mentalization, developed by Peter Fonagy and colleagues (Fonagy & Luyten; Fonagy et al.; Sharp et al.), heavily drawing on data from developmental psychology and neurosciences (Fonagy & Luyten ; King-Casas et al.) has become one of the most promising theories in this field. The present paper argues for the need to create interdisciplinary bridges between criminal law and psychology, sustaining that the theory of mentalization may be an important linking concept.

## REPRESENTAÇÃO DO CONHECIMENTO E SISTEMAS PERICIAIS DE AUXÍLIO À DECISÃO JUDICIAL

Paulo de Sousa Mendes\*

Palavras-chave: inteligência artificial – representação do conhecimento jurídico – sistemas periciais de auxílio à decisão judicial

Resumo: Em que medida poderá o juiz vir a ser suplantado por um computador ou, se quisermos tornar a pergunta ainda mais dramática, por um robot? A pergunta puxa ao efeito. Nunca houve qualquer projeto de investigação fundamental ou aplicada que visasse a substituição de um decisor humano por uma máquina no domínio do Direito. Mas já houve grande entusiasmo na criação de Sistemas Periciais (também chamados Sistemas Baseados em Conhecimento) de apoio à decisão judicial. No domínio jurídico, os sistemas periciais deixaram a partir dos anos 90 do século passado de fazer parte das buzz expressions. Será que simplesmente passaram de moda e desapareceram sem deixar rasto? Tentarei elencar no presente artigo algumas das razões que causaram o paulatino desinteresse dos juristas por estas aplicações informáticas e procurarei defender a urgência de novas estratégias para a interligação entre a Inteligência Artificial (IA) e o Direito.

Keywords: artificial intelligence – expert systems in law – legal knowledge representation

Abstract: Can a judge be substituted by a computer, or to put it more dramatic, by a robot, and if this is possible, to which degree? There has not yet been any fundamental or applied research project aiming the substitution of a human decision maker by a machine in the area of Law. But there has been great enthusiasm regarding the creation of expert systems (also called Knowledge-Based Systems) in order to support the court ruling. In the legal field, since the decade of the 1990s the expert systems were not longer

## ANATOMIA DO CRIME | ANATOMY OF CRIME

considered to be “buzz expressions”. Did they simply get out of fashion and vanished without any trace? In this paper, I try to list some of the reasons that caused the gradual lack of interest of the academics and legal practitioners for these informatical applications and I will also try to defend the urgent need for new strategies for the connection between Artificial Intelligence and Law.

### THE EXTENDED MIND AND THE COMPUTATIONAL BASIS OF RESPONSIBILITY ASCRIPTION

**Andreas Matthias\***

Keywords: extended mind thesis – autonomous agents – responsibility

Abstract: In a well-known paper, Clark and Chalmers proposed what is known as the extended mind thesis (EMT). The thesis has originally been stated in very ambiguous terms, and criticism has focused on these ambiguities of the original paper. At the same time, it has been overlooked that the EMT can be defended by reducing and further clarifying its claims. We identify three different claims of cognitive externalism that are conflated in the original paper, as well as in subsequent accounts of the thesis: the data claim, the causal claim, and the computational claim. By clearly distinguishing between them, we can drop the parts of the thesis that have been shown to be untenable, while retaining a more precisely stated and interesting subset of the original claim. We also show where the critics of the extended mind thesis have gone wrong by using insupportable or ineffective arguments against the EMT. Having clarified the tenable claims of the EMT, the paper discusses questions of responsibility ascription to a joint agent composed of “internal” and “extended” computational components. The examination of responsibility ascription to agents acting under conditions of epistemic disadvantage and as parts of bigger, joint-agent systems, serve to point out possible ways of reconciling common intuitions in responsibility ascription with the demands created by the particular architecture of a joint agent, whether this is a “classical” agent who outsources some of his or her computational operations to the environment, or a human cooperating with a semi-autonomous robot.

### ARTIFICIAL INTELLIGENCE, ROBOTICS AND EMOTIONS

**Luís Custódio\***

Keywords: artificial intelligence - robotic agents - emotions - decision making - robot control

Abstract: For the past two decades the research interest concerning subjects related to the area of (Artificial) Emotions has grown considerably. Generically, the goal is to develop new architectures/frameworks suitable for designing virtual or robotic agents whose behaviour may somehow be compared with the “emotional facet” of human behaviour. Since the very beginning of the Artificial Intelligence research, it has been considered that emotions are not relevant if one has the goal of developing an agent capable of performing tasks that are usually associated with intelligence. However, findings on neuroscience studies have revealed that emotions, in fact, have an important (and probably, essential) role in what respects human reasoning and decision making. In particular, the work of the neuroscientist A. Damásio is specially interesting as he claims, supported on results from field experiments, that a human brain lacking or having a malfunction on the neural sub-system responsible for handling emotions cannot efficiently make decisions as simple as the schedule of a future meeting with her/his doctor. In this paper an emotion-based system architecture to be applied in robotic agents is discussed.

## COMENTÁRIO À SESSÃO A *LINGUAGEM E A LÓGICA DA RESPONSIBILITY ASCRIPTION*

**Wagner Marteleto Filho**

Resumo: Este breve texto consiste no relatório por mim apresentado no “CongressoMentee Responsabilidade”, tendo por objeto a Conferência proferida por Andreas Matthias, versando a temática: a “tese da mente estendida” e as bases de adscrição de responsabilidade a agentes computacionais híbridos.

Abstract: These brief lines attend to my report back at “Mind and Responsibility Congress”, focussing on the lecture held by Andreas Matthias, concerning the issue: the “extended mind thesis” and the basis of responsibility ascription to hybrid computational agents.

## COGNITIVE SCIENCE IN THE COURTROOM

**Neil Levy\***

Keywords: neurolaw - judgment - bias - testimony - memory

Abstract: There is extensive evidence from cognitive science that the judgments of individuals, whether legal experts like judges or the laypeople who constitute juries, are predictably unreliable under many circumstances. We have retributive impulses that may distort our judgments; we are over-impressed by eyewitness testimony and by recollection, given how faulty each source of evidence often is; we attribute intentions to agents based on irrelevant considerations, and so on. Since these biases ensure that we make predictable mistakes, it is incumbent on the law to take them into account. In this paper, I review the evidence for these distortions and suggest possible responses. Subjective evidence should be replaced, where possible, with objective; factors (like race) known to mitigate the harshness of judgments should be regarded instead as mitigating factors to compensate, and we should investigate the possibility of using statistical rules to replace individual judgment.

## NEUROETHICS AND CRIMINAL RESPONSIBILITY – A CRIMINAL LAW COMMENT ON NEIL LEVY’S CONSCIOUSNESS AND MORAL RESPONSIBILITY

**Helena Morão**

Keywords: neuroethics – consciousness – somnambulism – voluntary act requirement – criminal responsibility

Abstract: This comment focuses on the implications of mind sciences research and of neuroethical thought for a desert-based theory of penal liability, particularly in the criminal law’s voluntary act requirement. Based on an analysis of Neil Levy’s *Consciousness and Moral Responsibility*, and taking into account the example of sleepwalking, we argue a criminal (ir)responsibility solution for the problem case of somnambulist behaviour in line with the normative constitutional principles of equality, proportionality, guilt and harm.

