

(e.g., aggressive/impulsive behavior) and brain studies (anatomical/functional alterations, neurochemical imbalances, etc.) influence juridical liability? We do not agree with the argument that juridical liability becomes meaningless when neuroscientific data are applied; conversely, we claim that it can be scientifically assisted in establishing charged mental capacity. In juridical terms, three elements have to be considered: the charged action itself, the consequences of the charged action, and the intentional correlates of charged action. Our model suggests that neurophysiological data can improve and experimentally support classical knowledge on charged intentionality, clarifying how cognitive, affective, and volitional capabilities participated in and contributed to the criminal action. Endorsing an embodied, embedded, and extended mind antireductionist perspective, the model encompasses experimental data that are potentially pertinent in a well-framed conceptual paradigm. Pursuing this outcome, on the one hand the model suggests a distinction among motor intentions, present-directed intentions, and distal intention for both individual and joint actions (Pacherie 2006). On the other hand, it provides the conceptual tools that shed light on the phenomenological criminal experience. In normal conditions, a subject is aware of being simultaneously the author and performer of an action; beginning with behavioral motor disorders, such as the anarchic hand syndrome and utilization behavior, this distinction is now being investigated. In turn, three degrees of experience (nonconscious processes, first-order experience, and high-order experience) have been related to different modulation of self-awareness (the bodily self characterized as minimal sense of self, the sense of ownership, and the sense of agency) (Gallese and Sinigaglia 2010; Tsakiris, Schütz-Bosbach, and Gallagher 2007).

In conclusion, our psychiatric forensic evaluation model explains and supports the role of neuroscientific data by providing a conceptual framework; furthermore, it improves our understanding and definition of charged intentionality. Therefore, a better experimentally supported judgment on convicted mental insanity can be reasonably pleaded, whenever appropriate.

23. Neuroscience News Journalism in Italy: When Ethical Standards Make the Difference

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What idea of neuroscience do readers of Italian newspapers share and how does the Italian press write of neuroscience, if we take into account the ethical role of mass media? To answer these questions, we employed a survey: Neuroscience news published on the three most popular Italian newspapers (*Corriere Della Sera*, *La Repubblica*, and *La Stampa*, and six neuroscience sections of the latter two), with about 9 million readers (15% of our population) were monitored between January and June 2011. Eighty-two neuroscience news items were valued based on criteria established beforehand; of the

49 authors, 77% had written of neuroscience only once in the time frame considered, while a small minority (4%) had authored more than six neuroscience news items. Journalists were slightly more than 50% of the total number, with the rest being neuroscientists or experts: 40% of the neuroscience news was substantiated by iconographic material; 85% of the time, the nation or place of the investigation or discovery was mentioned; and the name of the team leader or scientist interviewed was available in 90% of the cases. However, 46% of the neuroscience news reported a generic reference and only 12% of the data included the title of the article and the scientific journal or the reference textbook, for further reading. In addition, our survey seems to go along with our claim that the attitude of both journalists and experts in dealing with the neurosciences is fluctuating. In fact, besides an elevated percentage of accurately reported news on the applications of innovative therapies to treat diseases like Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis (ALS), and so on, there are still too many neuroscience news items that lack a substantial content, objectivity, clarity, and style, and are, therefore, less "scientific" rhetoric and of poor quality. In dealing with the neurosciences, the unmet but unrenounceable adherence to ethical standards and the ideological partiality typical of our culture may very well be the cause of the low quality we attribute to Italian neuroscience journalism, with a loss of meaning and ends being a consequence. In conclusion: Who is at fault? We attribute the responsibility to those journalists whose struggle to "attract" more readers abdicates ethical standards, easily forgetting that expertise and objectivity are always a requirement and failing to refrain from sensationalism; also, the very little concern for the quality of the information provided proves counterproductive. However, journalists are not the only ones to blame: In our country, a growing number of neuroscientists and experts collaborate in this science journalism enterprise; unfortunately, their approach is often reductionist, ideologically oriented, and denies any aspiration to transcendence. The unaware reader becomes, therefore, the victim of a scientific journalism unwilling to provide fair and accurate information, made incapable of acquiring those tools that are necessary to navigate this complex realm, and at risk of dangerous equivocations.

26. Making Room for Neuroscience in Normative Theory

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For the past 20 years, neuroscientists have used functional magnetic resonance imaging (fMRI) techniques in order to investigate various neural correlates of behavior—from simple motor responses to complex mental processes such as moral deliberation. In this paper, I hope to examine and critically analyze the types of inferences that can be made from neuroimaging data. I use this brief evaluation to help answer the question: *Can neuroimaging data play a role in informing normative moral theory?*

Recently, philosophical critiques have targeted methodological inadequacies in fMRI technique. In part I, I critique