Eric Racine
Pragmatic Neuroethics: Improving Treatment and Understanding of the Mind-Brain.
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Pragmatic Neuroethics is based on Eric Racine's recent contributions on neuroethics and provides a synthesis of the major themes of his work in bioethics, especially ethics of neurosciences and brain research. The characteristic virtue of Racine's thinking—an explicit acceptance of the importance of different and seemingly conflicting approaches—is present throughout the book. The prose is highly readable, and the arguments defended are understandable to readers with various backgrounds. The questions pursued should interest not only academic bioethicists and professional philosophers, but anyone realizing the growing significance of neurological research and both its implemented and possible applications. Given the complexity and richness, and the number of the topics considered by Racine, a full discussion of this book cannot be attempted here. Instead, we will give a short overview of the book's chapters and address some of the issues we found most interesting from a philosophical point of view.

The first four chapters form the first part of the book and give an overview of the field of neuroethics. In Chapter 1, Racine introduces some prominent issues of the field, and in Chapter 2 he discusses briefly how the field has formed and how it has been defined. Racine also provides his own definition of neuroethics (propounded jointly with Judy Illes): a 'new field defined by both scholarly and practical goals to tackle challenges emerging in areas such as neuroimaging and neuropharmacology' (34). Chapter 2 contains a survey of issues treated in peer review literature and compares this to issues prominent on the web and in print media. The results of the survey point to the conclusion that many important issues, such as privacy and confidentiality, do not find their way to public discussion. This might not surprise everyone, and we should not expect the public discussion to mirror the professional perfectly, but the gap is still considerable. Somewhat ironically, of the issues seen to be important in the peer review literature, only the issues of public involvement and understanding received larger attention in the wider public media. It seems that we discuss publicly the fact that we do not discuss these matters publicly, and then leave it at that.

In Chapters 3 and 4, Racine lays out his view of pragmatism in bioethics. Chapter 3 charts various forms of pragmatism. In Chapter 4, Racine defends his position by addressing various challenges that have been raised against the viability of the field of neuroethics. He argues that the critics have not acknowledged the diversity of the positions expressed in peer review articles. However, Racine (95) recognizes that many of the criticisms raised, such as the charge of neuroessentialism (the idea that our brains define the essence of who we are), address important questions of which researchers need to be aware.

The second part of the book consists of chapters that address specific challenges in neuroethics. By surveying a considerable sample (1256) of newspaper articles, chapter 5 reiterates the importance of addressing public involvement and understanding. The sample supports the conclusion that many assumptions deemed problematic in the peer review literature are taken for granted in the media.

Chapter 6 deals with the issue of cognitive enhancement. Racine approaches it through the concept of 'culture wars': he argues that the moral nature of enhancement has been debated mainly from two differing perspectives. The liberal approach has typically inquired whether enhancement is morally *acceptable*, while the conservative approach has inquired whether enhancement is morally *praiseworthy*. Naturally, these two questions lead to very different answers, as the former is only a necessary condition of the latter, not a sufficient one. Racine opts for the middle-ground of moderate liberalism, and calls for deliberative democracy to adjudicate between the extremes. Chapter 7 looks into disorders of consciousness, especially persistent vegetative state and minimally conscious state. Chapter 8 takes this discussion further by examining some cases of special interest, such as the Terry Schiavo case.

In Chapter 9, Racine discusses the ethical and epistemological implications of a neuroscience of ethics. He writes that 'there is still much resistance to this research, particularly the neuroscience of ethics' potential contribution to inform practical ethics and real-world decision making' (201). According to Racine, however, 'several arguments and challenges that are commonly put forward' to argue against the neuroscience of ethics—such as 'neurological determinism, naturalistic fallacy, semantic dualism, biological reductionism, and threats to ethics'—are not 'definitive'. The argument from naturalistic fallacy, for example, is not definitive, as 'bioethics itself has generally rejected a strong is-ought divide by acknowledging the context-sensitive nature of biomedical ethics reasoning' (205). By this Racine seems to mean simply that bioethicists take various empirical facts into account in their reasoning and accept, among other things, that neuroscience 'can alter our implicit and explicit beliefs about how moral cognition and behaviour work' (205) and 'provide powerful insights into the mechanisms underlying moral reasoning, cooperative behaviour, and emotional processes' (179). The conclusion of the discussion is that a pragmatist perspective combined with the doctrine of 'emergentism' (as opposed to reductionism or holism) implies that the arguments of those who think that 'the neuroscience of ethics is inherently problematic' are not convincing, although 'they bring qualifications to the neuroscience of ethics and the interpretation of such research' (213). The pragmatic multilevel emergentist framework 'highlights the need to integrate the neuroscience of ethics in an interdisciplinary understanding of ethics' (213). This formulation suggests that Racine has in mind *all* critics' *all* arguments, not only 'several arguments and challenges' mentioned above.

Now, many attacks against the neuroscience of ethics do not deny the possibility that neuroscience could 'inform practical ethics' (201) or claim that neuroscience cannot 'have a role in bringing fresh perspectives on the description of cognitive and neuronal processes in moral decision making and behaviour' (210). Their claims are more modest.

Consider two recent examples. Selim Berker ('The Normative Insignificance of Neuroscience', *Philosophy & Public Affairs* 37 [2009], 293-329) has argued that attempts to derive normative implications from neuroscientific results either rely on a shoddy inference, or appeal to substantive normative intuitions (usually about what sorts of features are or are not morally relevant) that render the neuroscientific results irrelevant to the overall argument. However, Berker does not deny the possibility that neuroscience could play a more indirect role in sculpting our normative conclusions. F. M. Kamm ('Neuroscience and Moral Reasoning: A Note on Recent Research', *Philosophy & Public Affairs* 37 [2009], 330-45) has raised doubts about the possibility of deriving normative conclusions from neuroscientific data. She argues that it is revealing to consider *hypothetical results of possible experiments* in order to test someone's commitment to drawing normative implications from data *if they were available*. Kamm concludes that the commitment cannot be very strong, but she does not deny that neuroscience can provide new perspectives on the *description* of neuronal processes in ethical reasoning.

It is unfortunate that we do not learn Racine's opinion about these arguments. But it certainly seems that Berker and Kamm's arguments are compatible with Racine's 'pragmatic multilevel emergentist framework', as the framework appears to exclude only the extreme views that either deny *any* relevance of neuroscience in ethics or assume that the input of neuroscience in ethics will always be necessarily undesirable.

As Racine's approach is so inclusive, from the viewpoint of situating his pragmatism in the current scholarship and evaluating its input, it would have also been helpful if he had compared his approach to some of the other pragmatists in the field, discussed for example in *Pragmatic Bioethics* edited by Glenn McGee (Cambridge, MA: MIT Press [2003, 2nd edition]). In that title, John D. Arras (Chapter 5), discusses pragmatism in bioethics and argues that in a sense we are all pragmatists. The danger is that pragmatism is becoming too weak. This is a general worry that underscores the need for precision.

There is also a larger problem looming here that is not specific to Racine's approach. Assume that pragmatism finds wide acceptance among scholars but that the public discussion exhibits characteristics entitling the use of the term 'culture wars' (i.e. deep controversy supposedly issuing from underlying value conflict as in the case of abortion or the right to bear arms). Then, there is a large gap between not only between some members of the public but also between the scholars and the public. Arras (75) cites Susan Wolf, who has reminded us that we must ask whether our current theoretical approach is actually making life better for people. If our theories currently distort the lived moral experience of various groups in our society, or fail to notice what is most important to them, then we should shelve those theories and try to develop better ones. Could this happen to pragmatism?

Overall, this book makes a valuable contribution to the general understanding of the developing field of neuroethics. In his conclusion, Racine identifies future challenges for neuroethics. The first is the gap between expert and lay opinion, and two others are the advancement of nonbiomedical research and perspectives on the interpretation of

neurological findings, and the development of a pluralistic approach to neuroethics as a field of bioethics. Racine's lucid and balanced discussion of these complex problems goes some way toward meeting the latter two interesting theoretical challenges, and his research on the first—i.e., the portrayal of the field in media—establishes the need for his book. It would be an advance for the general understanding of the field if this book made its way to a readership beyond the confines of the neuroethics community.

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