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Comment on “Does it make sense to speak of neuroethics?”

Last year's Special Issue of *EMBO reports* was a welcome contribution to the debates about the emerging challenges of basic and clinical neuroscience, and the related field of 'neuroethics'. Parens & Johnston's (2007) discussion of the problems that they associate with neuroethics and other fields of bioethics constitutes an important contribution, but their arguments apply to specific views of neuroethics rather than to the subfield of neuroethics as a whole. Here, I specifically address two implicit assumptions underlying their position without discussing in detail the dangers they associate with neuroethics.

First, the authors presuppose that neuroethics is almost exclusively focused on new neurotechnology—that neuroethics is somehow addressing only ethical issues associated with technological developments. This certainly represents some of the aims

Fig 1 | Various goals and views of neuroethics.

encompassed by the umbrella term of neuroethics, but the broader scheme is more complex and includes many other goals (Fig 1). For example, the lack of attention that bioethicists have paid to the advances in neuroscience is one of the reasons why a slightly distinct community has emerged to approach the ethics of neuroscience. If bioethics had been as attentive to neuroscience as it was to genetics, perhaps the story would be different. For others, interventions in the central nervous system create challenges that must be addressed in their own right, and some see yet another goal for neuroethics: the potential renewal of bioethics' commitment to public dialogue about biomedical science.

As a pragmatist, my own personal view is that the single most important integrative goal underlying neuroethics is a practical one: the need to improve patient care for specific patient populations. Hence, technological advances should always be discussed in the light of their potential contribution to the good of the patients and the public. In fact, some of the first occurrences of the term were associated with the concerns of clinicians that we had to pay more attention to the needs of neurological and psychiatric patients, and, in particular, the need to protect them from potentially harmful new interventions (Cranford, 1989; Pontius, 1973, 1993). The narrower and somewhat reductive view of neuroethics discussed by Parens & Johnston (2007) inadequately reflects the broad range of goals and perspectives that have contributed to the international evolution of neuroethics (Illes, 2006; Illes & Racine, 2007).

Second, the authors opt for the perspective that neuroethics can contribute to

"carving up bioethics into ever more specialized subfields" and to "squandering scarce resources" (Parens & Johnston, 2007). The flipside perspective is that neuroethics is bringing new ethical perspectives and contexts to consider in their own right with the help of new colleagues and students. For example, some neuroscientists have taken a leading role in bringing ethical issues to broader attention, including to bioethics. Neuroethics has also provided a vehicle for interested communities to participate and for individuals to work together, further their engagement, and to put a name on their common and genuine efforts. We should remember some of the reasons why bioethics emerged historically, and we should fear a rigid and disciplinary view of it. Such a view could create additional obstacles to the formation of interdisciplinary approaches and the inclusion of different ethical perspectives to address issues in specific healthcare contexts (Callahan, 1973).

The emergence of neuroethics will most likely engender expectations that need to be clarified. To do so, we must recognize the complex and pluralistic nature of this subfield, its historical underpinnings, and its promise to create dialogues that articulate both tradition and innovation (Illes & Racine, 2005). The dangers identified by Parens & Johnston (2007) remain important for neuroethics and bioethics, particularly given the media's enthusiasm for controversial technologies and scientific breakthroughs (Racine *et al*, 2005, 2006; Caulfield, 2004). The overall challenge for bioethics as a collective endeavour is to balance a willingness to help the medical and scientific communities with a fundamental

commitment to the good of patients and the general public (Andre, 2002).

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