Wiseman, Harris. The Myth of the Moral Brain: The Limits of Moral Enhancement. Basic Bioethics. Cambridge, MA: MIT Press, 2016. xi + 340 pp. Hardcover, \$XX.00—The Myth of the Moral Brain is a critical commentary on moral enhancement (ME). Wiseman observes that understanding the ME debate is complicated by a lack of consensus on what is being enhanced, how, and to which end. To include all possibilities, Wiseman defines ME in vague terms as "technological or pharmacological means of affecting the biological aspects of moral functioning, to boost what is desirable or remove what is problematic." (6) He then classifies ME proposals by which moral philosophy they presume, how much pluralism about morality they accept, whether they envision ME as voluntary or compulsory, if they focus on short-term interventions to fix particular problems or long-term changes in character, and if they understand ME primarily as therapies to treat pathologies or enhancements for healthy individuals. Wiseman argues these distinctions are needed to move past the unhelpful tendency to evaluate ME as either good or bad in the abstract, without sufficient attention to the varied forms ME could take. Wiseman's most significant distinctions are between "realistic" and "fantastical" enhancements, and between interventions aimed at specifically moral improvement ("hard") versus more general development of capacities related to morality ("soft"). These categories set up Wiseman's central argument: while hard ME is fantastical in scientific terms and also culturally and politically, at least in liberal democracies, soft ME is a growing reality, not only in psychological and psychiatric treatment for unwanted behaviour but also through campaigns, laws, and taxes that promote public health and pro-social conduct. Therefore, he argues, ME researchers should pay more attention to the ethical challenges of the soft ME taking place instead of speculating about the unproven potential of hard ME.

Wiseman develops his argument through a number of disciplines, including philosophy, science, and theology. He critiques major ME advocates, evaluating Ingmar Persson and Julian Savulescu's call for compulsory ME to avoid the otherwise inevitable apocalypse as simplistic "to the point of ludicrousness" (42) and appraising James Hughes' claim that conscientiousness is 50% genetic to be scientifically careless. Wiseman is not scornful of all ME projects, however, judging Tom Douglas' proposal for voluntary ME to moderate "counter-moral emotions" as realistic, because Douglas recognizes the limits of his approach and does not claim we need it to save the world from destruction. Wiseman also considers possible methods of ME, observing that mundane factors like risk-aversion in drug development make pharmaceutical treatments for racism financially as well as scientifically unlikely, and deeming genetic treatments for ME both too simplistic and too similar to eugenics to be viable. He is more optimistic about emotional 'neurofeedback' through brain stimulation, because it is crude enough to require the wilful cooperation of the person being treated to have any moral benefits. Turning to the scientific literature, while Wiseman agrees that the biochemicals oxytocin, serotonin, and dopamine must influence morality, he doubts that correlating blood samples with how undergraduates at elite universities play artificial, low-stakes games with strangers provides any general insights into moral decision-making. Similarly, Wiseman questions the use of brain imaging to study moral dilemmas, because "fMRI machines are completely incapable of indicating participants' reasons for action." (127) These limitations, plus the common reliance on terminally vague definitions of altruism, generosity, and empathy, lead him to conclude that current neuroscientific methods are unfit for the purpose of investigating morality. In contrast, Wiseman argues that the world's religious traditions provide popular, non-reductive, and carefully-defined models of moral formation. Focusing especially on Christian theology, he suggests that while ME may be illsuited to develop generosity in general or Christian charity in particular, it could still provide a positive biological background for agents to voluntarily pursue particular goods through social relationships. After an excursus on the treatment/enhancement distinction and the risks of medicalizing moral and social problems, Wiseman illuminates the current reality and limitations of soft ME through two existing treatments for addiction: nalmefene and pastoral psychology. Finally, he concludes that for hard ME to ever become practical, it must begin with the agent's active desire for the good.

Overall, Wiseman succeeds in providing a serious, critical evaluation of recent proposals for moral enhancement. Many ME advocates will be challenged by the comprehensive and sometimes bruising quality of Wiseman's critiques. Yet those who are interested in ME without being committed to its utopian reputation may be encouraged by Wiseman's more modest, social vision for "soft" moral enhancement. At times, Wiseman's writing is overworked: claims are evaluated as *very* interesting, *very* important, or *completely* incoherent, and some arguments are unnecessarily extended or repeated. Still, these minor weaknesses do not diminish *The Myth of the Moral Brain*, which I judge a must-read contribution to the ME debate.—Michael Buttrey.