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Should Children Have Equal Access to Neuroenhancements?

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Persuasive arguments have been put forward for the permissible use of neuroenhancements (Bostrom and Sanberg 2009; Dees 2008). It is argued that in the same way that adults are (and should be) free to use nonmedical means of enhancements such as caffeine, they ought to be allowed to use neuroenhancements. As long as adults’ use of neuroenhancements does not harm others, they should have the freedom to decide whether or not to enhance themselves.

Ilina Singh and Kelly J. Kelleher extend this argument to suggest that it would be permissible for parents to administer such enhancements to their children. They suggest that, just like in the adult case, children are enhanced by their parents in a variety of permissible ways, such as education, training, and nutrition; therefore, parents ought to be free to enhance their children in medical ways as well (Singh and Kelleher 2010, 3). There is no essential difference that should render the former permissible and the latter impermissible.

They proceed by noting important concerns with regard to the effects neuroenhancements could have for distributive justice:

If neuroenhancement in young people is to become a common social practice—which is likely—the uneven demographic distribution of stimulant drug use raises distributive justice and access concerns. If they meet the rigorous parameters that will ensure minimum risk and maximum benefit, all young people ought to have equal access to existing resources to improve themselves and their performance, just as there should be equal access to existing resources to address neural and behavioral impairments. (Singh and Kelleher 2010, 3)

Their argument suggests that if left solely to the market, only those who are able to afford neuroenhancements would have access to them and thus a market approach would exacerbate inequalities. Already advantaged children would gain a further advantage, thereby extending the gap between the well-off and the worse-off. Concerns with justice are thus appropriate. It is the role of the state to maintain a just society; accordingly, it should provide universal access to these enhancements. Universal access would ensure that disparities are not made worse. This conclusion, however, is problematic.

In this commentary I advance two claims: first, that providing equal access to neuroenhancements might not be the best way to serve justice—indeed, such approach is likely to exacerbate inequalities. Second, it is important to draw a distinction between “justice-affecting” and “non-justice-affecting” neuroenhancements. The latter category can be left for the market to cater for, while the former category ought to be carefully regulated. Thus, as a society we should not address neuroenhancements as a category; rather, we should look at individual enhancements and assess their implications for values such as equality and fairness.

EQUALITY OF OPPORTUNITY AND ACCESS TO NEUROENHANCEMENTS

It is commonly argued by liberal egalitarians that justice requires that at the age of majority children should have equality of opportunity to pursue their life plans. On this view, if two 18-year-olds wish to open a business, but one has more resources than the other due to family wealth, then she has an unfair advantage in starting that business. Similarly when the two compete over admission to a desired college, if one has received private tuition throughout her life and the other has not, the former has an unfair advantage. Justice requires that we create a level playing field from which children at the age of majority can compete over jobs and positions.1

To move closer to equality of opportunity, liberal democracies such as the United States have put in place programs designed to narrow social inequalities, such as affirmative action legislation, estate taxes, and early education initiatives. They also established public education systems, public libraries, and programs that expand children’s access to health care. These institutions are clearly not enough: Well-off parents bestow advantages on their children through

1. There are various versions of the ideal of equality of opportunity; I endorse a version closer to the one luck egalitarians propose, namely, that in the case of children, social and natural inequalities ought to be, as much as possible, mitigated. This is in contrast to Rawls’s version, in which natural inequalities are not considered an object of justice. See Rawls (1971, 63–64).
other legally permissible means, for instance, through providing SAT classes and private tutors and through sending them to private schools. The ideal of equality of opportunity is not realized anywhere.\(^2\)

Natural differences are another reason why equality of opportunity is difficult to achieve. Children with higher intelligence, better concentration, and superior analytical skills are advantaged over those whose capacities are not as great. The former are likely to have more opportunities and better chances of achieving desired positions. Natural and social inequalities are thus intimately related to equality of opportunity (Bostrom and Sanberg 2009, 329).

This analysis has implications for the issue of equal access to neuroenhancements that the authors recommend. Given the ideal of equality of opportunity, it can be argued that equal access is not the best way to serve justice. To begin with, equal access is likely to be more beneficial to those who are already well off; they would probably take advantage of the access to a larger extent than those who are worse off. Well-off parents are more likely to know of these enhancements and they are more likely to have the time and resources to attain them. Justice would therefore be harmed.

Even if we assume similar utilization of the neuroenhancements by all socioeconomic groups, equal access would at best prevent existing disparities from getting worse; it would not mitigate them. To promote equality of opportunity there ought to be a policy of providing access to those that are disadvantaged due to social or natural circumstances and to restrict access to those who are better off. Such an approach would narrow the gap that exists between the advantaged and the disadvantaged, thereby mitigating the injustice caused by social and natural inequalities.

This proposal, however, might face a challenge: One might argue that if the neuroenhancements are very expensive and their benefits are marginal, then subsidizing them would be wasteful. If there are cheaper and more effective ways of enhancing the disadvantaged, say, by providing access to tutors, then pursuing such alternatives would be preferable. Under such conditions, leaving neuroenhancements to individual choice might be a better option. If the enhancements are very cheap and effective, then subsidizing might be the appropriate policy.

Thus, at least from the point of justice it seems that providing equal access to neuroenhancements would be problematic; it is likely to exacerbate inequalities. Furthermore, it is not certain that access to neuroenhancements is the best use of resources for promoting justice. It might turn out that the best way to serve justice is to allocate resources to non-medical enhancements and to leave neuroenhancements in the marketplace.

### NOT ALL NEUROENHANCEMENTS AFFECT JUSTICE

Let us turn to the second claim, namely, that a distinction between “justice-affecting” and “non-justice-affecting” enhancements ought to be made. Since each enhancement would have particular effects on a specific capacity, each enhancement would probably impact justice differently. Some might have a substantial effect, and some might have no effect. Grouping all neuroenhancements together as candidates for state support is problematic.

Enhancing traits and capacities such as intelligence, memory, alertness, wakefulness, concentration, and analytical and mathematical skills can affect equality of opportunity. However, enhancing certain emotional responses such as sexual pleasure or enjoyment of food is less clearly related to equality of opportunity (or justice more generally). To be sure, enhancing these responses can affect one’s well-being and perhaps indirectly influence how well a person does more generally. But to the extent that equality of opportunity to achieve jobs and positions is concerned, we should be more attentive to the advantages that higher intelligence bestows than the advantages that better ability to derive pleasure from food confers. Only the former seems to be relevant to justice. Thus, for policy purposes we should distinguish neuroenhancements along the lines of justice-affecting and non-affecting. The former ought to be carefully regulated while the latter could be left to individual choice.

This approach could be taken a step further; it is likely that each enhancement would affect equality of opportunity differently. Higher intelligence might have a larger effect on equality of opportunity than enhanced memory, and better memory might influence opportunities more than enhanced alertness would. Given scarcity of resources, the state would have to decide which enhancements to subsidize, if any. One approach the state ought to consider is to selectively promote those enhancements that would have the greatest benefit for the disadvantaged.

### CONCLUSION

Neuroenhancements are in our future; some are already here. We should prepare appropriate policies that would ensure that such enhancements do not harm values and ideals like equality and justice. In this commentary I proposed that in the case of children the state should strive to grant equality of opportunity. This implies that access to neuroenhancements ought to be granted to those who are disadvantaged, thereby creating a more level playing field. Moreover, I have suggested that neuroenhancements should not be treated as a uniform category; rather, each enhancement should be evaluated as to its specific impact on important values. Such assessment would enable

\(^2\) I leave aside the question of whether such practices can be morally justified. If we endorse an interpretation of equality of opportunity like the one proposed by egalitarian proponents such as Harry Brighouse and Adam Swift, such practices would be restricted. See Swift (2003) and Brighouse (2000). For an alternative view see Mason (2006).
Sudden Discontinuation and the Subjective Character of Experience: A Reason to Resist Psychotropic Neuroenhancements

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Singh and Kelleher (2010) take the position that “psychotropic [i.e., via pharmaceuticals] neuroenhancers are not substantively different from non-drug strategies widely used . . . to enhance cognition and performance” (3, emphasis added) and, drawing out the implications of this, conclude that an agenda for psychotropic neuroenhancers, erring on the side of being “overly cautious,” should focus on maintaining their safety and their noncoercive use, as we would with any sort of enhancement practice. My concern with their assessment is their first move—that psychotropic neuroenhancers are not, in morally relevant ways, different from other forms of enhancements.

My reservation focuses on the fact that abrupt withdrawal from some psychotropic drugs can significantly, albeit temporarily, alter not only people’s physical experience but also their experience of sense of self and place in the world. This subjective felt experience, while troubling enough for adult users, may pose significant enough emotional distress for young people already working through the challenging emotional experiences of adolescence and young adulthood to warrant further concern about the use of psychotropic drugs for purposes other than making life manageable. If this is a morally relevant difference of psychotropic neuroenhancers, then erring on the side of being “overly cautious,” particularly given the population Singh and Kelleher are striving to protect, necessitates even more caution than Singh and Kelleher have put forth.

The relevant mechanism distinguishing psychotropic neuroenhancers from other varieties of enhancers is the fact that psychotropic enhancers affect their users only with a buildup in the users’ systems, and, for this reason, the termination of use is possible in a way that enhancements from tutoring, private schools, etc. are not. Other forms of enhancement, say, physical, also frequently are such that termination of enhancement is possible but does not have the direct impact on brain chemistry, and thus not the subjective experience that accompanies a rapid alteration in the brain chemistry. In what follows, I briefly describe what I take to be the gap in Singh and Kelleher’s analysis, a consequent of viewing psychotropic neuroenhancement as, in all important respects, similar to other forms of enhancement, neuro and otherwise. I then detail the significance of this gap with regard to psychotropic drugs and then its significance to the population of young people.

When considering the moral permissibility of any form of alteration to self, the responsible approach in a culture concerned with well-being and autonomy is to compare potential harms to potential benefits and then to view as

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