

# *Commentary: Freedom Means Self-Awareness and Self-Control*

## *Bioenhancement Can Help*

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There are three basic forms of power in society: overt coercion, remuneration, and persuasion. Overt coercion, when our goals and interests are clear to ourselves and we are forced to other ends, is the most obvious affront to free will. Remuneration changes our behavior by offering us something we want more. Persuasion is the most opaque form of power, because we are convinced that we are acting freely but actually are pursuing others' ends. It is only the unconscious manipulation of persuasion that undermines our sense of free will. The gun or the pile of cash may force us to act against our desires, but we still know what they are. Freedom from persuasion requires becoming aware of our own minds, and strengthening the mental faculties that contribute to the useful illusion of free will.

The question posed by this commentary is whether people in general can be coerced toward this subjective freedom by force, cash, or persuasion. Society is more interested in encouraging conformity than self-awareness, but when we encourage one another to become more self-aware and self-governed, we support one another toward freedom from automaticity. Raising a child is an exercise of coercion that inevitably involves encouraging conformity and automaticity, as well as mature self-awareness and decisionmaking. Distinguishing the social pressures that encourage self-awareness from those that discourage it will become even more important in the era of moral enhancement.

Rakić and I agree that voluntary moral enhancement is desirable, and that involuntary moral enhancement contributes to the subjective freedom of mentally ill adults. However, in arguing that moral enhancement must be voluntary for everyone else, Rakić is attempting to defend a reified conception of free will that, in my view, is at odds with both material and political reality. Rakić even concedes that his threshold conception of free will is an illusion, but insists that it is a necessary illusion, and one so fragile that it evaporates whenever externally encouraged. Although I agree that he is correct that we appear to be enabled by the myth of free will, we are enabled by degrees, and not across a binary threshold. Nor are any of us ever free of the pressures to be more subjectively automatic or free; we are always surrounded by guns, money, and opinions.

Rakić points to the research of Davide Rigoni et al.,<sup>1</sup> Kathleen Vohs and Jonathan Schooler,<sup>2</sup> and Roy Baumeister et al.,<sup>3</sup> which suggests that belief in free will enables self-control and moral behavior. But these free will researchers were precisely not looking for a binary, threshold effect. Both the Rigoni et al. and the Vohs and Schooler

studies used the Free Will and Determinism scale, which ranges from 22 (most deterministic) to 110 (most libertarian). After exposing their experimental groups to information supporting determinism, researchers found that the intervention slightly reduced most subjects' strong belief in free will; although demonstrating that belief in free will reinforces self-control, the effect is scalar not binary.

Baumeister et al. argue that self-control is best understood as the capacity to make a conscious, rational plan, and then override competing impulses and external pressures to carry it out. Belief in free will reinforces our capacity for meta-cognition, deliberation, and resisting temptation and influence, which in turn supports a subjective sense of free will. The underlying cognitive capacities and traits—metacognition, executive function, and prefrontal inhibition of impulses—vary continuously, from weak to strong, and can be summed up as a “freedom quotient” through psychometric testing.<sup>4</sup> These faculties are also all amenable to “autonomy enhancement.”<sup>5</sup>

In my view, Rakić's reified concept of free will is part of a deeper misconception about the autonomous authentic self which keeps us from grappling with the profound challenges we face from neurotechnologies. I believe that Rakić is right that compulsory moral enhancement can, and almost certainly will, be one future tool of political repression. But social compulsion to use moral enhancement, such as the drug modafinil, which boosts attention and executive function,<sup>6</sup> would in fact promote subjective freedom and cognitive liberty.

Consider several examples; the child with attention-deficit/hyperactivity disorder (ADHD), the addict, and the racist. One of the effects of stimulant medication for children with ADHD, for whom medication use is compelled by their parents, is to reinforce executive function,<sup>7</sup> meta-cognition, and behavioral self-control.<sup>8</sup> Ilina Singh<sup>9</sup> interviewed 150 children taking stimulant medications about their sense of authenticity and self-control. She found that for the majority of children, their medications did not violate their self-authenticity, and that they appreciated the enhanced emotional and behavioral self-control and improved moral decisionmaking. “They primarily see stimulants as supporting their capacity for moral agency.” Their moral enhancement was involuntary, but they welcomed it because it enhanced their autonomy.<sup>10</sup>

Whether addiction is a form of rational behavior or self-enslavement is much debated, but subjectively, most addicts experience substance dependency as the opposite of free will. Now that therapies that break addictions are being developed, what is the subjective experience of freedom of those who are compelled to “get clean”? Poppy Rourke et al.<sup>11</sup> found that addicts sent to treatment by the court were no different in their engagement with their recovery than those who went voluntarily, and the experience of “drug courts” mandating treatment suggests that they are effective in reducing drug use and recidivism.<sup>12</sup> As Arthur Caplan<sup>13</sup> concludes, “Mandatory treatment which relieves the coercive effects of addiction and permits the recreation or re-emergence of true autonomy in the patient can be the right thing to do.”

Finally, what of the experience of being coerced into confronting uncomfortable truths about one's own biases? Despite the widespread resentment of “political correctness,” many workplaces have instituted mandatory training programs to increase awareness of implicit ethnic and gender biases. These interventions range from education about harassment policies to role-playing to education about the evidence for implicit biases, and there is as yet little agreement about the most

effective interventions,<sup>14</sup> but research suggests that both beta blockers<sup>15</sup> and mindfulness meditation<sup>16</sup> reduce implicit biases by increasing prefrontal awareness and inhibition of amygdalic responsiveness. Because prefrontal awareness and control of otherwise automatic behavior is the definition of the exercise of free will, presumably the experience of mandatory interventions with these effects, even if coerced and resented, would be examples of the coercive enhancement of free will. If not, then the argument is simply tautological; free will is never enhanced if its enhancement is coerced.

I have argued elsewhere<sup>17</sup> that the project of moral enhancement needs to re-engage with the virtue ethics traditions, and embrace the necessary complementarity of the ensemble of moral faculties that will be enhanced. In this regard, therefore, Rakić has a point: boosting moral sentiments such as empathy or a sense of duty or fearlessness will not necessarily contribute to subjective freedom, whether coerced or self-imposed. Elizabeth Shaw<sup>18</sup> makes the same point in arguing against using direct brain stimulation to induce particular ideas about right and wrong, instead of to boost the capacities for self-control. I am more optimistic that the manipulation of sentiments and capacities for self-control can be combined in a program of post-human character development that enhances flourishing and the subjective sense of free will. Indeed, the faculties of self-awareness, deliberation, and self-control are the only referents this illusory concept of free will can be based on.

## Notes

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