Connor Hocking and Valeriia Sych[*]

WOULD GENETICALLY ENGINEERING A CHILD'S PREFERENCES DIMINISH HER AUTONOMY?[1]

Introduction

Music is Abe's passion. He wants a child – not just any child, but one who will come to share that passion. So, Abe and his wife conceive using in vitro fertilization and then consult a "preference engineer," a specialist who genetically modifies embryos so that the resulting children will be predisposed toward forming certain preferences. Nine months later, Bella is born. From day one, Abe takes great care to expose her to music, and his project meets with great success: She comes to have a passionate love of music and takes eagerly to her piano lessons. Bella's love of music becomes fundamental to her sense of who she is as an individual – yet this love was genetically engineered. Will the fact that the passion which forms the core of her sense of self was selected for her by another person prevent her from being autonomous and becoming her own person? Will she be able to regard herself as her own person?

Although this sort of genetic "preference engineering" is not technologically possible at present, the recent advent of the genome editing system CRISPR-Cas9[2] has given new vigor to the debate over the ethics of genetic engineering in humans, motivating philosophers to consider questions similar to this that are speculative for the time being but may prove to be critical in the future. In the literature, genetic engineering of preferences has been discussed in the context of what is known as moral enhancement. Philosophers such as Ingmar Persson and Julian Savulescu argue that we should use genome editing and other emerging technologies to select for traits that predispose people to perform morally good actions – which they understand primarily as actions that tend to bring about good outcomes for society or at least reduce the risk of bad ones, e.g. making personal sacrifices to stave off

[*] Connor Hocking, Incoming master's student in philosophy at Georgia State University (USA).
Коннор Хокінг, студент магістратури з філософії в Університеті штату Джорджія (США).
e-mail: connorhocking1000@gmail.com
Valeriia Sych, student at the Yaroslav Mudryi National Law University (Ukraine).
Валерія Сергіївна Сич, студентка Національного юридичного університету імені Ярослава Мудрого (Україна).
e-mail: v.s.sych@nlu.edu.ua
[2] Antonio Regalado, "Engineering the perfect baby," *MIT Technology Review* 118, no. 3 (2015): 26–33.

the worst effects of climate change.[3] In some of their writings, they claim that such a practice might be justified even if it made people psychologically incapable of performing severely bad actions, such as murder.[4] This proposal has encountered opposition on the ground that it would compromise human autonomy. Michael Hauskeller, for example, argues that rendering people incapable of doing evil would amount to an unacceptable loss to autonomy, which he thinks is worth the price of remaining free to choose to do evil.[5] John Harris, who is in many other contexts a vocal proponent of genetic engineering and biomedical enhancement, expresses a similar concern.[6]

This debate has taken place in the context of explicitly *moral* preferences. We have encountered no discussion in the literature, however, of genetically engineering *non*-moral preferences.[7] We are using these terms in a very general sense: "Preference"[8] means liking, valuing, or tending to desire certain kinds of activities or things, and "non-moral" means something that is not generally concerned with morality, at least morality understood conventionally as having to do with what is good for other people rather than what is good merely for oneself. Moral preferences, then, demand a moral choice and include a predisposition to be honest or a desire to ensure that everybody gets his or her due. Non-moral preferences, by contrast, include liking music or athletics.

What reasons would there be for permitting genetic engineering for non-moral preferences (GENP)? Parents might be interested in it for the simple reason that they tend to want their children to do and like certain things. These can range from things that seem unrelated to autonomy (e.g. loving music) to things that could affect it for good or ill (e.g. a preference for optimistic or negative worldview). In addition, there might be *moral* reasons to permit the use of GENP: Parents could select for preferences that are good for the child's subjective well-being (e.g. a preference for socializing in small groups, to make life more agreeable for a child born in a small, remote community), and it could be argued that GENP would expand reproductive liberty, which is regarded by many as a moral good.[9] Finally, GENP could be

---

[3] Ingmar Persson and Julian Savulescu, "The Perils of Cognitive Enhancement and the Urgent Imperative to Enhance the Moral Character of Humanity," *Journal of Applied Philosophy* 25, no. 3 (2008): 162–77.

[4] Ingmar Persson and Julian Savulescu, "Getting Moral Enhancement Right: The Desirability of Moral Bioenhancement," *Bioethics* 27, no. 3 (2013): 124–31.

[5] Michael Hauskeller, "Is It Desirable to Be Able to Do the Undesirable? Moral Bioenhancement and the Little Alex Problem," *Cambridge Quarterly of Healthcare Ethics* 26, no. 3 (2017): 365–76.

[6] John Harris, "Moral Enhancement and Freedom," *Bioethics* 25, no. 2 (2011): 102–11.

[7] There has been some discussion, however, of what could be called *indirect* engineering of non-moral preferences; for example, interventions that directly influence body type might indirectly influence the child's preferences (e.g. being tall might incline one to like basketball). See: Dena Davis, "The Parental Investment Factor and the Child's Right to an Open Future," *Hastings Center Report* 39, no. 2 (2009): 24–27.

[8] "Preference" is often explicitly comparative, as in "I prefer A over B," but in our use of it here the comparative character is often only implicit: "I like playing the piano" implies a comparison of "I like playing the piano (over other, unspecified things)." The meaning in each case will be clear from context.

[9] Ronald Dworkin, *Life's Dominion* (New York: Alfred A. Knopf, 1993); John A. Robertson, *Children of Choice: Freedom and the New Reproductive Technologies* (Princeton: Princeton University Press, 1994).

used to complement other forms of genetic engineering: Since many scholars have expressed the concern that a child might dislike the traits selected for her by her parents[10] – such as selecting for above-average cognitive abilities to increase the chances that the child will become a mathematical savant, with the result that the child does indeed becomes excellent at math but does not enjoy it – a proposal for *preference* engineering would seem to weaken this concern since by supposition the child would have a preference, and not merely a *talent,* for the things selected.

What reasons would there be for prohibiting GENP? One intuitive objection is that GENP might diminish the child's ability to be autonomous. John Christman and Joel Anderson characterize autonomy as "being one's own person, directed by considerations, desires, conditions, and characteristics that are not simply imposed externally on one, but are part of what can somehow be considered one's authentic self."[11] GENP might seem to be tantamount to just this sort of external imposition of preferences, desires, and values – things that tend to form the core of one's identity, one's sense of being oneself as opposed to someone else.[12] While it is true that, even without GENP, children (or at least young children) do not select their preferences in any straightforward sense, the fact that their preferences would be selected by *someone else,* before their birth and without any possibility of their consent, might nevertheless seem to compromise their ability to become autonomous later in life. It is one thing for parents to encourage activities such as playing the piano through standard means like environmental exposure and lessons; it might be quite another to genetically program a preference for doing so. To wield this kind of power over another human being might seem to diminish her autonomy.

---

[10] Davis, "The Parental Investment Factor;" Jürgen Habermas, *The Future of Human Nature* (Malden: Polity Press, 2003).

[11] John Christman and Joel Anderson, eds. *Autonomy and the Challenges to Liberalism: New Essays* (New York: Cambridge University Press, 2005), 3.

[12] We are using "identity" in the everyday sense of "who one is," as opposed to metaphysical senses such as numerical identity. Since this inquiry primarily concerns performing genetic engineering on one and the same embryo, rather than selecting one embryo from among others and thus selecting a numerically distinct child, it is not affected by the nonidentity problem raised by Derek Parfit (*Reasons and Persons* (Oxford: Oxford University Press, 1984)) and others. Moreover, even if embryo selection – whether by itself or complemented by subsequent genome editing – proved to be a better means for selecting a child's preferences than genetic engineering without embryo selection, it is still not clear that the identity problem would be morally relevant in such a case. The nonidentity problem generally concerns the moral implications of choosing to bring someone into the world that will have a bad life (e.g. carrying a child to term that one knows will suffer from a lifelong painful disease). In connection with the intuition that by doing so we would wrong the child, if we knew in advance that her life would be sufficiently bad, the problem arises that it is not clear how we could have wronged her by the very act that brought her into existence – had we not performed that act, she could never have been wronged in the first place. Selecting a child's preferences, however, would not necessarily cause her to have a bad life in the requisite sense. The nonidentity problem would only seem to be morally relevant in the case of parents who select an embryo on the ground that certain preferences will manifest, where those preferences will negatively affect the child's well-being to a certain (perhaps significant) degree.

Plausible as this may seem, we disagree. In this paper, we argue that parents could select for a wide variety of substantive (i.e. not merely insignificant) non-moral preferences without compromising their child's autonomy, provided that certain criteria that we propose are satisfied, e.g. the selected preferences must not be such as to inhibit the agent's capacity for rational deliberation, which is a key component of the conception of autonomy we employ. We then respond to two objections: (a) GENP would be inherently incompatible with autonomy, regardless of whether it meets any such criteria, and (b) even if GENP would not be inherently incompatible with autonomy, people might still regard it as an alienating influence and might regard their selected preferences as non-autonomous. We then argue that this second objection would be less forceful according to a more "externalist" rather than "internalist" conception of autonomy.[13]

I. Genetics and Preferences

We begin by providing some clarifications regarding the empirical considerations on which this paper depends. First, we are not endorsing genetic determinism, according to which preference "outputs" are deterministically generated by genetic "inputs." The relationship between genotype and phenotype is much more complex,[14] with certain genes getting expressed as phenotypes only if certain environmental conditions are met. Furthermore, since genetics does not so much give rise to manifestations of specific preferences as it does contribute to general predispositions, out of which preferences may later manifest, what we have called genetic engineering for *preferences* should more precisely be called genetic engineering for *predispositions* to form preferences. Since repeating phrases like "a predisposition for forming a preference for *x*" would be cumbersome, however, we will continue using "a preference for *x*," even though the former better describes what we mean. GENP, then, would not guarantee, but would only increase the likelihood, that the child develops or retain the selected preferences; the "success" of the parents' selection would be decided by a host of factors, such as the child's life history and her budding agency. Accordingly, any project of genetic preference engineering would require supplementary environmental stimuli – such as exposure to music and piano lessons, in the case of Abe and Bella from above – but since such environmental shaping of children is an age-old practice, and since it is rather the novel genetic interventions that appear ethically troubling, we are focusing primarily on the latter.

---

[13] Note that there may be reasons to object to GENP other than its purported incompatibility with autonomy. When we conclude that there are certain conditions under which GENP would not diminish autonomy, this does not amount to the claim that GENP is all-things-considered desirable since such a verdict would require consideration of goods and values other than autonomy. Other values that thinkers have claimed would be threatened by genetic engineering include human dignity, the integrity of the parent-child relationship, and social equality. Since concern about autonomy springs to mind so forcefully in the context of GENP, however, we contend that it warrants specific treatment and we leave considerations of such other values for another time.

[14] Robert Plomin, *Blueprint: How DNA Makes Us Who We Are* (Cambridge: MIT Press, 2018).

For the purpose of this paper, then, GENP should be understood as follows. If a parent selects a preference for her child (and complements this with the enabling environmental stimuli), the child is likely to have it through much of childhood[15] – unless she develops a conflicting or overriding preference. Say a parent uses GENP to select a preference for music, and then environmentally directs it to become a preference for playing the piano specifically. Such a preference could go on to have any of the following fates:

1.　The child loves piano from an early age and goes on to become a concert pianist.

2.　She loves it from an early age but later develops a strong love of basketball too, through natural means (i.e. her preference for basketball was not selected). Knowing she cannot pursue a career in both, she chooses basketball but remains an avid pianist in her spare time. The inverse is equally possible: She chooses piano but still plays in an amateur basketball league.

3.　She loves it from an early age but at age five some disaster strikes, forcing the family to forgo her musical education in favor of meeting immediate needs, and by the time they regain financial stability years later, her interests have shifted.

4.　Her experience with her first piano teacher is so negative that she never comes to like playing the piano in the first place.

Second, note that GENP could not influence *all* of a child's preferences; many of the preferences she will have in life will develop in response to circumstances that could not have been foreseen or controlled. Rather, GENP would only influence one or some of her preferences. If parents choose only some preferences, it can't decisive influence a child`s life. And the impact on autonomy will be not so seriously.

Third, we are focusing only on the immediate recipient of the genetic intervention. We are not discussing the implications of that intervention being heritable by subsequent generations.

Finally, we are discussing only those cases in which parents choose the preferences of their children. While our argument might partially apply to cases where other actors (e.g. the state) choose the preferences, such cases raise a different set of ethical concerns.

II. GENP and Self-determination

We now turn to the concept of autonomy to consider whether GENP would compromise it. The meaning of autonomy varies widely from theory to theory, but generally it refers to an agent's ability to express or act upon her will without coercion, manipulation, or alienating influences. The conception of autonomy we use here draws from a range of thinkers,[16] whom we discuss below in this section. Our conception of autonomy contains two principal aspects:

---

[15] An alternative scenario is possible: There may be preferences for which we have a genetic predisposition that only manifest *after* childhood.

[16] Dana Nelkin, "Do We Have a Coherent Set of Intuitions about Moral Responsibility?" *Midwest Studies in Philosophy* 31 (2007): 243–59; G. Owen Schaefer, Guy Kahane, and Julian Savulescu, "Autonomy and Enhancement," *Neuroethics* 7, no. 2 (2014): 123–36; Maartje Schermer, "Preference Adaptation and Human Enhancement: Reflections on Autonomy and Well-Being," in *The Adaptation and Autonomy: Adaptive Preferences in Enhancing and Ending Life,* ed. Juha Räikkä and Jukka Varelius (Springer, 2013), 117–36.

1.   Self-determination: An agent is autonomous to the extent that she decides, in accordance with her rational deliberations and with motivations that she does not regard as alienating, which courses of action she will take;[17] and

2.   Opportunities for choice: An agent is autonomous to the extent that she has the opportunity to choose from a sufficiently broad range of life paths.

We will discuss the second aspect in the following section. As for the first aspect, it seems that perhaps certain cognitive capacities are necessary for self-determination. We focus on three: the capacity to reason effectively, to respond to reasons for choosing one course of action over another, and to reflect upon one's motivations and preferences. The notion that rationality is somehow characteristic of autonomous actions is reflected in the moral and legal difference between actions prompted by spontaneous impulse and actions carried out after deliberation: If A kills B in an instant of passion as opposed to after rationally considering doing so, A might be let off on the ground of temporary insanity. We now turn to each of these three cognitive capacities by briefly outlining some of the theories in which they have been discussed.

Reasoning effectively: In their attempt to isolate a key feature common to many conceptions of autonomy, G. Owen Schaefer, Guy Kahane, and Julian Savulescu[18] survey a broad range of influential conceptions. Common to all of them, they find, is the capacity to reason properly, which they analyze as consisting of multiple components, such as competence in logical inference and the ability to subject claims to critical analysis.

Reasons-responsiveness: According to a "reasons-responsiveness" view of autonomy, such as that discussed by Dana Nelkin,[19] an agent must be appropriately responsive to reasons in order to be autonomous. This can be illustrated by counterfactuals. For example, say Cal decides to drink a glass of wine, for the simple reason that he enjoys wine. Now if he had been taking a medication that causes severe problems when mixed with alcohol, Cal would have been in a different situation, where his reason for drinking would have been outweighed by his reason for abstaining, viz. the health problems that doing so would cause. If Cal drinks despite these risks, this would suggest that he is insufficiently responsive to the reasons to not do so.

Reflection and endorsement: Maartje Schermer[20] incorporates various theories of autonomous preferences, such as Harry Frankfurt's[21] and Donald Bruckner's,[22] into her discussion of the need to reflect upon preferences in order to render them autonomous:

---

[17] As for whether she must not only decide on a course of action but actually attempt to initiate it, our conception of autonomy is neutral on this.

[18] Schaefer, Kahane, and Savulescu, "Autonomy and Enhancement."

[19] Nelkin, "Do We Have a Coherent Set of Intuitions about Moral Responsibility?"

[20] Schermer, "Preference Adaptation," 126.

[21] Harry G. Frankfurt, "Freedom of the Will and the Concept of a Person," *Journal of Philosophy* 68, no. 1 (1971): 5–20.

[22] Donald W. Bruckner, "In Defense of Adaptive Preferences," *Philosophical Studies* 142, no. 3 (2009): 307–24.

We do not always consciously form or choose our preferences, just like we do not form them intentionally. Many of our preferences are formed unconsciously; they are acquired throughout our lives, through upbringing, habituation and the like. However, I think that as long as one does, upon reflection, acknowledge them as one's own, and as long as they are in line with one's goals, plans and values, we can still consider such preferences to be autonomous.

This process of reflection is critical for determining whether one's preferences are alienating, as we discuss in Sections V and VI.

How might one's preferences inhibit or harmonize with (i.e. be compatible with) these three cognitive capacities? Two features of preferences must be distinguished: their content and their intensity. The content is the object of the preference, what the preference is *for*. Certain contents are more compatible with these cognitive capacities than others; they may promote, be neutral toward, or inhibit them. Promoters include a preference for figuring things out for oneself, e.g. enjoying working through a puzzle in a newspaper, rather than skipping directly to the back page to find out the answer; or preferring to consider one's present reasons for acting a certain way rather than unreflectively acting out of habit. Neutral ones include enjoying athletics or being extroverted. Inhibitors include preferring to have answers given to one, an aversion toward introspection and reflection (aversion being a "negative preference"), and a preference to unquestioningly accept the decisions of authority figures.[23]

The intensity of a preference also influences the extent to which it harmonizes with these capacities. Preferences that are so intense as to amount to an irresistible compulsion can clearly inhibit autonomy. This is not to say that preferences must be lukewarm, however. One can passionately enjoy fine wine, for example, without this necessarily inhibiting autonomy. The decisive factor for autonomy is whether the preference is so strong as to inhibit the agent's ability to respond to reasons for acting otherwise than how the preference generally inclines her to act. To return to the example of Cal on medication, if Cal drinks a glass of wine despite the health risks of doing so, this might be because his preference for wine is so intense as to diminish his responsiveness to reasons to do otherwise. Alternatively, he might have a great love of drinking wine but still refrain from doing so while taking the medication.

III. GENP and Opportunities for Choice

So much for the first aspect of autonomy. We turn now to the second:

Opportunities for choice: An agent is autonomous to the extent that she has the opportunity to choose from a sufficiently broad range of life paths.[24]

---

[23] The extent to which the content of a given preference harmonizes with autonomy varies depending on the context. The first promoter preference just listed, for example, could manifest itself as a liking for trivial puzzles that one finds stimulating but that, if indulged to excess, interferes with goals that are more central to one's life project. This context-dependence is not problematic, however, since a preference need only harmonize with these capacities generally, or at least in more cases than not, in order to be permissible here.

[24] Since both opportunities for choice and the cognitive capacities underlying self-determination admit of degree, note that our conception of autonomy as a whole admits of degree. This is in contrast

In the present context of children's autonomy, opportunities for choice is known as the right to an open future. This right was originally formulated by Joel Feinberg[25] and is discussed in the context of reproductive technologies by Dena Davis,[26] who worries that parents who spend the time and money to access such technologies, e.g. using sex selection to ensure they have a boy, are likely to feel entitled to a certain outcome, e.g. a boy with traditionally masculine interests, which would make them reluctant to let him pursue activities that do not meet their expectations (such as ballet) if he forms a desire to do so.

The right to an open future has two dimensions. According to the negative dimension, the child has a negative right against an excessively narrow life path being imposed upon her, at the expense of alternative ones. According to the positive dimension, she has a positive right to an adequate education, so that when she is ready to embark upon a life path she will be reasonably equipped to do so. While these dimensions seem relatively uncontroversial when stated in these general terms, the matter becomes more complex when it comes to deciding specifics. Children are not fully autonomous and need parental guidance; it would be irresponsible for a parent to defer overmuch to a child's sense of what she wants since children do not always know what is good for them. For this reason, Feinberg refers to autonomy as a right that children have "in trust."[27] The right to an open future, then, ensures *now* that children will be able to exercise their autonomy *later,* once their capacities to exercise autonomy are developed. Different theories of parental prerogatives may disagree on the extent to which a parent's choices in child-rearing should be constrained by the child's right to an open future, but the general principle that parents need to eventually let their children choose their own life paths is widely agreed upon in liberal societies.

As standardly understood, then, the right to an open future consists in the provision or non-obstruction of opportunities for the child to explore a broad range of life paths, such as being a pianist, an engineer, or a farmer. Our question, however, concerns not the life paths themselves but the *preferences* a child might have for any one life path. Is having a right to pursue a broad range of life paths tantamount to having a right to have *preferences* for a broad range of life paths? Or does it rather mean that the child, once she has a certain set of preferences, has a right to pursue (within reasonable limits) those life paths that most appeal to her, according to the preferences she *already* has?

The former interpretation leads to implausible conclusions. If children have a right to have preferences for a broad range of things, GENP would not be so much of a threat to this right as a means for its protection: Parents would seem to be *encouraged* to use GENP to "complement" a naturally-arising preference for any one thing by selecting additional

---

to binary conceptions, according to which autonomy is either possessed or it is not, e.g. a stone does not have autonomy whereas an adult human being (generally) does.

[25] Joel Feinberg, *Freedom and Fulfillment: Philosophical Essays* (Princeton: Princeton University Press, 1994).

[26] Davis, "The Parental Investment Factor."

[27] Feinberg, *Freedom and Fulfillment*, 77.

preferences for many other things, to ensure that the child ends up with a sufficiently broad range of preferences. Such a practice might actually do the child some harm: If she had strong preferences for too many life paths, she might find herself pulled in multiple directions, as it were, without ever being able to commit to any one of them.

If the right to an open future is not a right for a broad range of preferences, perhaps it would nonetheless be violated by GENP on the ground that the child's natural preferences deserve respect and should not be manipulated. This too seems incorrect, however. The child does not have any preferences yet – in the early embryonic stage, there is no consciousness within which preferences could be phenomenologically realized[28] – but only genetic substrates for predispositions that may later manifest as certain preferences. We see no reason to believe that such merely potential preferences deserve to be respected just because they happen to be a certain way by nature, as it is notoriously difficult to define "natural" in a normative sense without relying on controversial assumptions.[29]

The right to an open future, then, is not violated by GENP. It is still an important ethical guideline, however. Recall that GENP would not guarantee that the child retains the selected preference; a love of piano may come to be eclipsed by a love of basketball. If it does, the parents could be accused of violating the child's right to an open future if they insisted she practice piano all day and refused to let her play basketball. They're going to the trouble to select for preferences does not amount to an entitlement that she actually has or act on those preferences in her life.[30] Thus we see that it is not the act of GENP that would violate the right to an open future, but rather the parents' behavior toward the child if she did not turn out to possess the preference as they intended.

IV. Criteria for Autonomy-Compatible GENP

With the foregoing considerations in mind, we can now propose the criteria that any GENP intervention must satisfy in order to harmonize with autonomy:

1. *Compatibility with cognitive capacities:* The content and intensity of the selected preferences must be such that they do not or at least generally do not inhibit the agent's capacity to reason properly, to respond to reasons for acting otherwise than how the preferences generally incline her to act, or to reflect upon her motivations and preferences; and

---

[28] In order to be most effective, genetic interventions of this type need to take place early in the embryonic stage, as opposed to a later stage in which consciousness might have begun to develop. See: Tetsuya Ishii, "Germline Genome-editing Research and Its Socio-ethical Implications," *Trends in Molecular Medicine* 21, no. 8 (2015): 473–81.

[29] We readily admit, however, that manipulating *existing* preferences, e.g. hypnotizing an adult with the result that she comes to lose a preference that was fundamental to her sense of self, would be problematic for autonomy; but this is because such an intervention would compromise the integrity and continuity of an actual psyche, not a merely potential one. See: Paul Griffiths and Stefan Linquist, "The Distinction Between Innate and Acquired Characteristics," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Winter 2021).

[30] Davis, "The Parental Investment Factor."

2.   *Non-entitlement:* Parents must not misconstrue the fact that they went to the trouble to select certain preferences for their child as an entitlement to her becoming exactly the kind of person they had in mind; the fact that parents chose GENP does not excuse them any more than other parents from having to respect the child's right to an open future, once she begins developing a certain set of preferences.

The first criterion concerns which kinds of preferences may be selected, while the second concerns what the parents must do and refrain from doing once they begin rearing their children. These criteria allow for a wide range of preferences to be selected: In addition to the examples already given, parents would be permitted to select for things such as enjoying academic subjects like literature, recreational activities like camping, and artistic pursuits like painting. In none of these cases would the content of the preferences inhibit the requisite cognitive capacities; and, provided that the preferences' intensity is not so great as to impair them either, there is no inherent incompatibility between these preferences and autonomy. Note too that the preferences that the criteria permit to be selected are not limited to insignificant ones, such as a preference for the color blue, but rather include substantive preferences – preferences for potentially life-defining passions like art or literature.

Whether these two criteria are necessary or sufficient for ensuring that GENP be compatible with autonomy depends on whether the two aspects of autonomy we have articulated are taken to be merely necessary or jointly sufficient for autonomy (where "jointly sufficient for autonomy" means that the two aspects, when taken together, capture the whole of the concept of autonomy, without leaving any dimension of the concept unaddressed). The first and second criteria correspond to the first and second aspects of autonomy, respectively. Each criterion, if satisfied, ensures (i.e. is sufficient for ensuring) that its corresponding aspect of autonomy is safeguarded: The first criterion ensures that the selected preference does not impair any of the three cognitive capacities undergirding self-determination, and the second criterion ensures that the selected preference does not infringe upon the child's right to an open future – which is tantamount to safeguarding the second aspect, opportunities for choice. If the two aspects are taken to be necessary for autonomy, then, the corresponding two criteria will be necessary for ensuring that GENP be compatible with autonomy (unless it were shown that some *other* criterion or criteria could safeguard the two aspects; though it is not clear that this would be possible considering that *our* two criteria are formulated in terms of the very definitions of the two aspects). Similarly, if the two aspects are taken to be jointly sufficient for autonomy, then so would the two criteria be jointly sufficient for autonomy-compatible GENP.[31]

---

[31] Conversely, if there are additional dimensions to autonomy that our two aspects fail to capture, our two criteria would not be sufficient for autonomy-compatible GENP. To establish that our two aspects are sufficient for autonomy, however, would take us beyond our scope – conceptions of autonomy vary quite widely, after all. Instead, we have selected and defined the aspects as we have because they resonate with a broad range of conceptions of autonomy, though perhaps not all of them. In what follows, we will understand these two criteria to be sufficient, and not merely necessary, for autonomy-compatible GENP, while conceding that different conceptions of autonomy might require different criteria.

V. The Inherent Objection to GENP

It might be remarked at this stage that we have failed to address the fundamental autonomy-based objection to GENP. We have argued that there are certain conditions under which GENP would harmonize with autonomy, but it might be objected that there are no such conditions, i.e. that GENP *inherently* conflicts with autonomy, regardless of whether it meets those or any such conditions. Since preferences form the core of an agent's identity, the very fact that they were selected by a third party – independently of the content of the preferences, their intensity, or the parents' degree of openness toward the child's having alternative preferences – might seem to significantly compromise her ability to be her own person or lead an autonomous life. She might have a good reason to regard such an influence as alienating and to reject her selected preferences as non-autonomous.

Some philosophers have voiced an objection along these lines. Jürgen Habermas writes: "We experience our own freedom with reference to something which, by its very nature, is not at [human] disposal…. [An agent must] be able to ascribe her own origin to a beginning which eludes human disposal, to a beginning, that is, which is sure not to prejudge her freedom."[32]

Michael Sandel expresses a similar view, and he quotes from the above passage in his influential book on genetic engineering.[33] To have one's origins be at the disposal of another agent, so their objection goes, is to have one's autonomy diminished.

There are two levels to this objection: (a) GENP would *actually* diminish autonomy, and (b) people might *believe* that GENP diminishes autonomy, regardless of whether they have a good reason to do so, and therefore they might find GENP alienating and might reject their selected preferences as non-autonomous. We address (a) in the remainder of this section and (b) in the following section.

To begin, note that a child has no say whatsoever in her genetics. This does not prevent her from becoming autonomous, however; autonomy, at least according to most conceptions, is not diminished by this lack of agency surrounding one's origin.[34] The same holds for the child's first preferences as for her genetics; what incipient preferences a newborn has were not selected by her. Nor can these preferences yet be said to be autonomous: To make them autonomous, an agent must reflect upon and endorse her preferences,[35] and young children lack this capacity for reflection. These early preferences, rather, arise largely from genetics, parental and social influences, and environmental contingencies. As the child matures, so does her capacity to exercise autonomy, and she becomes progressively more capable of reflecting upon the preferences she has come to have.

[32] Habermas, *The Future of Human Nature*, 58.
[33] Michael J. Sandel, *The Case against Perfection* (Cambridge: Harvard University Press, 2007), 81–82.
[34] This consideration raises questions about free will, but for reasons of space, we don`t address the topic of free will in this paper.
[35] Schermer, "Preference Adaptation and Human Enhancement."

All this holds equally true for someone who does and someone who does not have selected preferences. The difference between the two is that genetics, which for the latter is largely the result of natural forces, is for the former the product of an act by an agent. We will use "agentive" or "agentivity" to refer to this characteristic of things that arise as a result of acts by an agent.

Does the agentive origin of the child's selected preferences compromise her autonomy? While we think agentivity is important for some ethical considerations, we do not think autonomy is one of them: we do not think the fact that something arose as a result of a third party's intention diminishes autonomy any more than if the same thing were to arise from non-agentive means. Let the following examples illustrate.

1. Non-agentive case: Dan has a natural aversion (i.e. one that was not selected) to thinking through anything by himself, and prefers the comfort of being told what to do.

2. Agentive case: Ellen has the same aversion to independence of mind and preference for deferring to others as Dan, and to the same degree, but hers arose not naturally but through her father's selecting it by means of GENP, whose strongly traditional view of gender roles makes him regard autonomy as less than a virtue in a daughter.

In both cases, the preference inhibits autonomy. Since the content and intensity of the preferences is the same in both cases, the only respect in which they differ is that the first arose agentively.[36] We call the claim that autonomy is diminished more in the agentive case, despite having the same end result (i.e. the preference for deferring to others) as the non-agentive case, the agentive preponderance thesis (AP).[37] To evaluate AP, we must identify what difference agentivity makes and then determine whether this difference affects autonomy.

When we compare the cases of Dan and Ellen, we see that Ellen was *wronged,* in that her father deliberately reduced her chances of coming to enjoy the good of autonomy, without having any good reason to do so (or, put more strongly, while doing so for a bad reason, viz. his belief that women should not be autonomous). Dan, in contrast, was not wronged; being wronged implies that there was an agent who did the wronging, but in his case, his lack of the good in question (autonomy) came about not through agentive means but chance. Since Ellen's case contains all the bad effects of Dan's case and in addition contains an agent being wronged, it might be regarded as being a worse case overall. We are not definitively claiming this; we are not claiming that a state of affairs in which a bad effect results from an agent is worse overall than a state of affairs in which the same effect comes about by chance. We merely concede this claim as a possibility. However, we *do* think that, whatever the difference between the two cases amounts to, it does not amount to a greater diminution in *autonomy.*

---

[36] There is a second difference, viz. Ellen's *attitude* toward her preference might be affected by the fact that it was agentive, but we discuss this in Section VI.

[37] A slightly less cumbersome name would be the *intentional* preponderance thesis, but "intentional" is too narrow since we understand the thesis as including both intentional and unintentional actions by agents.

A diminution in autonomy consists only in the deleterious effects upon autonomy and the capacities required to exercise it,[38] and in nothing more – not in the fact that it happened to originate agentively, or in the fact that an agent happened to be wronged instead of being affected by non-agentive forces. To claim otherwise is to claim that the fact that a state of affairs originated agentively affects autonomy independently of any detectable effects that the state of affairs has on the agent. Perhaps someone might defend such a claim, but to me, it seems too implausible to warrant further consideration, and we believe the burden of proof on this question has been shifted to the defender.

Someone might then rephrase the objection as follows: Dan's preference arose naturally, so even though it is a preference that many people would not want to have, it is nevertheless no one else's but his. Ellen's, by contrast, was selected by another agent, so it does not seem to be fully hers; rather, it expresses the preferences of others. Insofar as autonomy is concerned with "owning" one's preferences, therefore, Ellen's autonomy seems to be more compromised than Dan's.

In response, we agree that Dan's preference is no one *else's,* but as for whether it is *his* in the sense that is most important in this context, we do not think this is affected by the question of whether it arose agentively. It is his in the sense that he is the one who has it (and not anyone else), but this does not make it his in the sense of being autonomous, which is the important point here. According to Schermer's account of autonomous preferences, the *origin* of a preference is not necessarily relevant to its being autonomous since many preferences arise unconsciously. What matters, rather, is the agent's *attitude* toward the preference and its origin.[39] To render a preference autonomous, an agent must reflect upon it and the process whereby it arose, and if she then endorses it,[40] it becomes

---

[38] Although the cases of Dan and Ellen did not directly address the *capacity* to exercise autonomy – since an aversion to thinking independently is not the same as an inability to do so – Ellen's case could be modified as follows in order to reflect a diminution in the capacity to exercise autonomy: Suppose Ellen's father selected for her to have below-average cognitive abilities because he finds intelligence unbecoming in a woman, such that she will come to have difficulty reasoning properly. He could then be accused, among other things, of having impaired her capacity to exercise autonomy later in life.

[39] This is not to say that the origin is irrelevant in all cases, e.g. inducing a preference via hypnosis could be said to violate autonomy. C.f. see: David DeGrazia, *Human Identity and Bioethics* (Cambridge: Cambridge University Press, 2005), 99.
One might respond that even in such cases, however, the agent's attitude is still the decisive factor as far as autonomy is concerned: If I am an alcoholic and my wife hires a hypnotist to clandestinely induce in me an aversion to drinking and then reveals to me later what she did, I may come to endorse this new aversion despite its alien origin, perhaps because of a second-order desire to quit drinking (i.e. a desire to stop desiring alcohol) that I had had even prior to being hypnotized.

[40] Accounts differ on the details of this point. Bruckner ("In Defense of Adaptive Preferences") thinks the endorsement can be merely hypothetical: A preference can be autonomous provided that an agent *would* endorse it *if* she were to reflect upon it, even if she never actually does so. Schermer ("Preference Adaptation and Human Enhancement"), in contrast, thinks the reflection and endorsement must *actually* take place at least once in the agent's life, though by no means before every instance of acting upon it. Our argument remains neutral on this debate. Since, however, it is less cumbersome to repeat phrases

---

autonomous.[41] For example, say somebody has a strong preference for associating with members of his race and a bias against everyone else and say this preference arose through cultural osmosis during childhood, without conscious consideration. At some point, this person considers whether this preference coheres with his higher-order values and preferences. If he find that it does not, he might begin the difficult work of resisting the preference whenever occasions to express it arise and of cultivating a more inclusive outlook. Conversely, he might find that it does cohere with his higher-order preferences, at which point it can be said to be autonomous (which is not to say that it is praiseworthy). To return to Dan's case, it is not obvious how his preference to defer to others could ever be autonomous since it is, in part, a preference to be non-autonomous. Even though this preference is his in the sense that he has it, then, it is not his in the sense of being autonomous.

Similarly, Ellen's preference is hers in the sense that she is the one who has it. It is hers in this sense even though it was selected by a third party and therefore expresses the preferences of another person. It's being agentive, however, is not what prevents it from becoming autonomous; whether a preference arose naturally or agentively has no effect on an agent's ability to reflectively endorse it. Since Ellen's selected preference is for deferring to others, she might be comparatively *unlikely* to reflect upon any of her preferences – she might not be the kind of person for whom it is important that her preferences be autonomous in the first place – and even if she does reflect on this preference it is not clear, just as with Dan's case, that such a preference could ever become autonomous. This, however, is because of the content of the preference, not because it was selected. This means that Dan would be equally unlikely to reflect upon his preference since its content and intensity are the same as Ellen's, even though his arose naturally. If Ellen's preference had been for something neutral with regard to autonomy, e.g. liking piano, her selected love of piano would not have made her unlikely to reflect upon this preference, and she would be equally likely to do so (all else equal) if the preference had arisen naturally. As for whether Ellen should *endorse* her selected preference, assuming she does reflect upon it, we address this in the following section.

VI. The Child's Attitude Toward Her Selected Preferences

If a child[42] was told that some of her preferences were selected, would she endorse them and make them autonomous, or would she regard them as alienating and reject them as

---

like "an agent must reflectively endorse a preference to make it autonomous" than "an agent must actually or hypothetically reflectively endorse a preference to make it autonomous," we use the former, simpler formulation in what follows even though both formulations generally express what we mean.

[41] This does not necessarily mean, however, that an agent's preferences are *non*-autonomous prior to her reflectively endorsing them. It may mean, rather, either that she has simply not yet taken the time to reflect upon them or that, if she is still a young child, she has not yet developed the capacity to do so. In either case, the preferences might be said to be *pre*-autonomous. A *non*-autonomous preference, by contrast, is one that the agent rejects, after reflecting upon it. Whether a preference must meet certain criteria in order to qualify as non-autonomous – e.g. being alienating or being perceived to be alienating – will be discussed in the following section.

[42] By "child," we do not always mean a young child; we sometimes mean a child whose parents selected her preferences and who is now mature enough to reflect upon her preferences. The meaning in each case will be clear from context.

non-autonomous? Since it is impossible to determine *a priori* whether a given child will come to endorse or reject a selected preference, this consideration is necessarily speculative. Nevertheless, we think it raises an important concern. The general notion behind AP – that we are somehow more free, more our own persons, if left to develop naturally than if our development is preselected by other people – holds intuitive appeal. This notion might seem especially true to children in adolescence, who want so much to be themselves and no one else. With this in mind, we may have good reasons to worry that many children would come to reject their selected preferences because of the (mistaken, in our view) belief that their agentive origin undermined autonomy. While we think it would be too speculative to inquire whether this problem would actually prove to be widespread, we will address the related question of whether GENP could be legitimately said to be responsible for such a problem, regardless of the problem's prevalence.

Consider the example of Frieda. Say her parents have a love of fine foods and instilled this love in her – not through GENP but through traditional means only, such as taking her to expensive restaurants, while still giving her ample opportunity to pursue other interests and stressing the importance of eating in moderation. Now say that, in her late teens, Frieda becomes deeply religious and comes to regard eating fine foods, even in moderation, as a possible impediment to spiritual growth (though not necessarily as sinful or blameworthy) and begins to reject her preference for it, choosing simpler fare instead. Her first-order preference for fine foods has thus come into conflict with a second-order preference to not want them. The fact that she rejects this first-order preference does not mean, however, that her parents were blameworthy in seeking to instill it in her; they always cautioned her to keep her love of food within moderation and they never prevented her from pursuing her religious interests. It might mean, rather, that she has only recently reached the maturity to reflect upon any of her preferences, so that up to this point, *none* of them were autonomous[43] – they were, rather, what might be called *pre*-autonomous. Now, GENP was removed from this example for the purpose of illustration, but if we are correct that it has no inherent effect on autonomy, then we can insert it into the example without changing the relevant concerns – i.e. we can modify the first sentence of the example to become "Say her parents instilled in her a love of fine foods through GENP, while still giving her ample opportunity to pursue other interests," and leave the rest as is. If we do, we can see that a child's rejection of a *selected* preference does not necessarily entail that her parents were blameworthy for choosing it, any more than if she had rejected a *naturally-arising* preference. They would only be blameworthy in this context if they violated her right to an open future or had selected preferences that inhibited her autonomy.

The weight of the concern that children might find it difficult to regard selected preferences as autonomous varies depending on which theory of autonomy one endorses. If we are correct that AP is false, then an agent who rejects a selected preference solely because of its

---

[43] Alternatively, this might mean that, even if she had previously endorsed the preference, her values have changed.

agentive origin is rejecting it for a bad reason. Take the example of Gertrude, whose parents instilled in her a love of piano via GENP. This love of piano comes to be her passion and coheres with her other preferences. Over time, however, she comes to find it alienating that this preference was selected via GENP by her parents, instead of having arisen in the standard manner; and as a result, she starts to reject her love of piano. This, we contend, would be a bad reason for rejecting a preference. Now contrast this with the case of Hannah. Hannah's love of piano was also selected via GENP and she came to love it early in childhood, but through playdates with the neighborhood children she also developed a love of basketball. Her tyrannical parents wanted her to focus exclusively on piano, however, so they refused to let her play basketball and began isolating her from most other children. This strategy succeeded for a time: By the time she reached high school, Hannah had become a promising pianist and had largely forgotten about her earlier interest in basketball. When she moves away for college, however, she comes to realize through talking with fellow students that her parents had violated her right to an open future, and she begins to reflect upon her love of piano and her plan to major in piano performance. Say she is not bothered by the agentive origin of this preference, but she *is* bothered by the fact that her parents refused to let her pursue other interests. Her reflection leads her to realize that, although early in childhood she had played and practiced the piano primarily out of enjoyment, over time she had come to play primarily out of a sense of duty to her parents, so she now comes to reject what is left of her love of piano as something imposed upon her and alienating. Hannah's reason for rejecting her selected preference is better than Gertrude's reason for rejecting hers, as the former rejection was due to a violation of the right to an open future instead of the bare fact of agentivity.

Must an agent's reason for endorsement or rejection be a good one? Or may she endorse or reject a preference for any reason she deems fit? Different theories of autonomy have different answers to this question. Coherentism, to use the terminology of Sarah Buss and Andrea Westlund,[44] endorses the latter position: An agent's preference is autonomous or non-autonomous just in case she believes it coheres or does not cohere with her higher-order preferences, respectively. On this view, an agent who rejects a selected preference because it was agentive and because she believes agentivity is incompatible with the value she gives to her independence, would be justified in doing so. Buss and Westlund describe such an account as "internalist" in that it is concerned only with the consistency or coherence of things internal to an agent's mind (her beliefs and preferences) and not with how these beliefs and preferences relate to reality. On the other hand, reasons-responsiveness accounts[45] contend that, for an agent's preference to be autonomous or non-autonomous, she must endorse or reject it based not on whether it coheres with the other preferences she

---

[44] Sarah Buss and Andrea Westlund, "Personal Autonomy," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta (Spring 2018).

[45] These accounts are not to be confused with the more general sense of "reasons-responsiveness" used above, which refers to a cognitive capacity necessary for self-determination.

happens to have, but on whether it is warranted according to some external *reasons* she has to favor this preference over that. According to such views, an agent can be *mistaken* in believing that a preference is autonomous or non-autonomous. Because of this appeal to something outside the mind, Buss and Westlund refer to such accounts as "externalist." We will not argue in favor of internalism or externalism. We merely observe that the concern that people would find it difficult to regard selected preferences as autonomous is less problematic according to externalist accounts than internalist ones: If agentivity in and of itself is a bad reason to reject a preference, and if an agent can only reject a preference if she has a good reason to do so and one that has to do with considerations external to her mind and its inner consistency, then she cannot legitimately reject a selected preference simply for being agentive. In order to show that the selected preference is non-autonomous, she needs to adduce a better reason for rejecting it.[46]

There is another dimension to this concern. Say a child not only rejects a preference simply because it was selected but also finds this agentive origin deeply distressing, and she comes to be angry with her parents for using GENP. If severe enough, her anger could affect her autonomy, insofar as negative emotions can impair cognitive faculties like the ability to reason well. While this would have a negative effect on her autonomy, her parents would not be morally responsible for this effect by having used GENP. For example, say I had my daughter vaccinated against measles in early childhood, and say at age sixteen she comes to believe the vaccines are taking control of her mind and compromising her autonomy. She thinks this mind control was my plan all along and is furious with me, to the point where her anger is affecting her autonomy: She can no longer pursue her academic goals well due to the anger's bad effects on her ability to focus, and she calls me names she would never have endorsed upon reflection. Underlying this diminution in autonomy is a false belief (vaccines are mind control) about an action I was responsible for (having her vaccinated). So, while my action did lead to this diminution in her autonomy, in that it was a precondition for it, this does not mean I should be held morally *responsible* for it. To return to GENP, if a child believes (falsely) that the agentive origin of a selected preference inherently makes it non-autonomous, and becomes angry as a result, the parent should not be held responsible

---

[46] Accordingly, internalist conceptions of autonomy, but not externalist ones, might require GENP to meet a third criterion in order to be compatible with autonomy: *3. Transparency:* Parents must inform their children that their preferences were selected so that children will be able to adequately reflect upon them later in life. Even if agentivity is not a good reason for rejecting a preference, the internalist might contend, some children may think it is, and since we have to defer to their personal sense of what matters for autonomy, we need to ensure they are made aware of any factors such as agentivity that they might find alienating. The externalist, in contrast, might reply as follows: Since it is only those factors that one has a good reason to regard as relevant to autonomy that are important here, and since agentivity is not one of them, the parents are not required to tell their children that their preferences were selected, since knowing this would be irrelevant for autonomy. (This by no means implies, however, that the externalist should maintain that parents are permitted to *lie* to their children if asked whether any of their preferences were selected.)

for any diminution in the child's autonomy that comes from this anger, since the diminution resulted primarily from a false belief and only indirectly from GENP.

We would also like to point out that such approval or non-approval by the agent requires further research, because the fact of choosing preferences can affect in some situations the agent's autonomy. For example, in the sixties of the XX century in the USA scientists began to cut out the appendix of newborns, because it was believed that this organ is useless or even harms the body. And only in 2007, collective of scientists from Duke University Medical Center established that the appendix has an important immune effect.[47] So people who have had their appendix removed with their parents' permission may feel offended. A similar situation may arise in the case of GENP, because without these changes the life of the agent would turn out differently.

Conclusion

We have argued that GENP is compatible with autonomy and that rejecting selected preferences simply for being agentive would be a bad reason to do so. Provided that the content of the selected preference is not inherently corrosive to autonomy – whether by undermining the ability to reason properly, to respond to reasons, or to reflect upon preferences – and that the intensity of the preference is not so strong as to compromise any of these capacities either, and provided that the parents do not act as though they are entitled to have their child become a certain person by unduly restricting her opportunities for choice, they can select preferences for her without compromising her autonomy.

This inquiry has mostly confined itself to the theoretical level. Any concrete proposal for GENP would need to answer a number of other questions before being implemented, such as how the proposed criteria would be enforced, how likely it is that parents who go to the trouble to select preferences for their child would still respect her right to an open future, whether a more externalist or internalist conception of autonomy should be employed in evaluating children's attitudes to their selected preferences, and whether GENP conflicts with goods and values other than autonomy. Autonomy is, nevertheless, an important consideration in this question and, if our criteria are met, it would be compatible with GENP.

© C. Hocking, 2022

© V. Sych, 2022

Bibliography

Bruckner, Donald W. "In Defense of Adaptive Preferences." *Philosophical Studies* 142, no. 3 (2009): 307–24.

Buss, Sarah, and Andrea Westlund, "Personal Autonomy." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta (Spring 2018).

---

[47] Duke University Medical Center, "Appendix Isn't Useless At All: It's A Safe House For Good Bacteria," *ScienceDaily*, October 8, 2007, www.sciencedaily.com/releases/2007/10/071008102334.htm.

Christman, John, and Joel Anderson, eds. *Autonomy and the Challenges to Liberalism: New Essays*. New York: Cambridge University Press, 2005.

Davis, Dena. "The Parental Investment Factor and the Child's Right to an Open Future." *Hastings Center Report* 39, no. 2 (2009): 24–27.

DeGrazia, David. *Human Identity and Bioethics*. Cambridge: Cambridge University Press, 2005.

Duke University Medical Center. "Appendix Isn't Useless at All: It's A Safe House For Good Bacteria." *ScienceDaily*, October 8, 2007. www.sciencedaily.com/releases/2007/10/071008102334.htm.

Dworkin, Ronald. *Life's Dominion.* New York: Alfred A. Knopf, 1993.

Feinberg, Joel. *Freedom and Fulfillment: Philosophical Essays.* Princeton: Princeton University Press, 1994.

Frankfurt, Harry G. "Freedom of the Will and the Concept of a Person." *Journal of Philosophy* 68, no. 1 (1971): 5–20.

Griffiths, Paul, and Stefan Linquist. "The Distinction Between Innate and Acquired Characteristics." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta (Winter 2021).

Habermas, Jürgen. *The Future of Human Nature.* Malden: Polity Press, 2003.

Harris, John. "Moral Enhancement and Freedom." *Bioethics* 25, no. 2 (2011): 102–11.

Hauskeller, Michael. "Is It Desirable to Be Able to Do the Undesirable? Moral Bioenhancement and the Little Alex Problem." *Cambridge Quarterly of Healthcare Ethics* 26, no. 3 (2017): 365–76.

Ishii, Tetsuya. "Germline Genome-editing Research and Its Socioethical Implications." *Trends in Molecular Medicine* 21, no. 8 (2015): 473–81.

Nelkin, Dana. "Do We Have a Coherent Set of Intuitions about Moral Responsibility?" *Midwest Studies in Philosophy* 31 (2007): 243–59.

Parfit, Derek. *Reasons and Persons*. Oxford: Oxford University Press, 1984.

Persson, Ingmar, and Julian Savulescu. "The Perils of Cognitive Enhancement and the Urgent Imperative to Enhance the Moral Character of Humanity." *Journal of Applied Philosophy* 25, no. 3 (2008): 162–77.

Persson, Ingmar, and Julian Savulescu. "Getting Moral Enhancement Right: The Desirability of Moral Bioenhancement." *Bioethics* 27, no. 3 (2013): 124–31.

Plomin, Robert. *Blueprint: How DNA Makes Us Who We Are.* Cambridge: MIT Press, 2018.

Regalado, Antonio. "Engineering the Perfect Baby." *MIT Technology Review* 118, no. 3 (2015): 26–33.

Robertson, John A. *Children of Choice: Freedom and the New Reproductive Technologies.* Princeton: Princeton University Press, 1994.

Sandel, Michael J. *The Case against Perfection.* Cambridge: Harvard University Press, 2007.

Schaefer, G. Owen, Guy Kahane, and Julian Savulescu. "Autonomy and Enhancement." *Neuroethics* 7, no. 2 (2014): 123–36.

Schermer, Maartje. "Preference Adaptation and Human Enhancement: Reflections on Autonomy and Well-Being." In *The Adaptation and Autonomy: Adaptive Preferences in Enhancing and Ending Life*, edited by Juha Räikkä and Jukka Varelius, 117–36. Springer, 2013.

Коннор Хокінг і Валерія Сич. Чи зменшить генна інженерія уподобань дитини її автономію?

Анотація. Прихильники "зміцнення моралі" стверджують, що ми повинні використовувати новітні технології, такі як редагування геному, щоб прищепити перевагу "виконання морально хороших вчинків замість поганих," і вони вважають, що це було б корисно, навіть якщо це робить виконання поганих вчинків психологічно неможливим. Критики заперечують, що така перевага "морально правильної поведінки" не варте втрати людської автономії. Ця дискусія залишилася обмеженою в контексті моральних уподобань. Однак генна інженерія неморальних уподобань (GENP) – наприклад, захоплення музикою чи легкою атлетикою – не обговорювалася. Оскільки вподобання – це те, що агент любить, цінує або як правило бажає – формують ядро того, ким він є і чого він прагне у житті, і оскільки автономія вимагає, щоб агент був самим собою та здійснював власні життєві проекти, його автономія може здатися, що зменшується, якщо його переваги були обрані до народження третьою стороною. Яким би правдоподібним це не здавалося, ми не згодні. У цій статті ми стверджуємо, що батьки могли б вибирати широкий спектр суттєвих (тобто не просто незначних) неморальних уподобань, не ставлячи під загрозу автономію своєї дитини, за умови дотримання певних критеріїв, які ми пропонуємо: зокрема, вибрані переваги не повинні перешкоджати здатності агента до раціонального обговорення, що є ключовим компонентом концепції автономії, яку ми використовуємо. Потім ми відповідаємо на два заперечення: (a) GENP за своєю суттю несумісний з автономією, незалежно від того, чи відповідає він будь-якому з таких критеріїв, і (b) навіть якщо GENP за своєю суттю не був би несумісним з автономією, люди все одно могли б вважати його чужим впливом, а отже вибрані переваги – неавтономними. Тоді ми стверджуємо, що друге заперечення було б менш вагомим відповідно до більш "екстерналістської", а не "інтерналістської" концепції автономії.

Ключові слова: генна інженерія; автономія агента; концепції автономії; права людини; генна інженерія неморальних уподобань (GENP).

Коннор Хокинг и Валерия Сыч. Уменьшит ли генная инженерия предпочтений ребенка его автономию?

Аннотация. Сторонники "укрепления морали" утверждают, что мы должны использовать новейшие технологии, такие как редактирование генома, чтобы привить преимущество "исполнение морально хороших поступков вместо плохих," и они считают, что это было бы полезно, даже если это делает плохие поступки психологически невозможными. Критики отрицают, говоря, что такое преимущество "нравственно правильного поведения" не стоит потери человеческой автономии. Эта дискуссия осталась ограниченной в контексте нравственных предпочтений. Однако генная инженерия ненравственных предпочтений (GENP) – например, увлечение музыкой или легкой атлетикой – не обсуждалась. Поскольку предпочтения – это то, что агент любит, ценит или как правило желает – формируют ядро того, кем он есть и к чему он стремится в жизни, и поскольку автономия требует, чтобы агент был самим собой и реализовывал собственные жизненные проекты, может показаться, что его автономия уменьшается, если его предпочтения были избраны до рождения третьей стороной. Каким бы правдоподобным это ни казалось, мы не согласны. В этой статье мы утверждаем, что родители могли бы выбирать широкий спектр существенных (т.е. не просто незначительных) безнравственных предпочтений, не ставя под угрозу автономию своего ребенка. Нам кажется, это будет возможным при условии соблюдения определенных критериев, которые мы предлагаем: например, выбранные преимущества не должны препятствовать способности агента к рациональному обсуждению, являющемуся

ключевым компонентом концепции автономии, которую мы используем. Затем мы отвечаем на два возражения: (a) GENP по своей сути несовместим с автономией, независимо от того, отвечает ли он какому-либо из таких критериев, и (b) даже если GENP по своей сути не был бы несовместим с автономией, люди все равно могли бы считать его чужим влиянием, а значит, выбранные преимущества – неавтономными. Тогда мы утверждаем, что второе возражение было бы менее весомым в соответствии с более "экстерналистской," чем "интерналистской" концепцией автономии.

Ключевые слова: генная инженерия; автономия агента; концепции автономии; права человека; генная инженерия ненравственных предпочтений (GENP).

Connor Hocking and Valeriia Sych. Would Genetically Engineering a Child's Preferences Diminish Her Autonomy?

Abstract: Proponents of "moral enhancement" argue that we should harness emerging technologies such as genome editing to instill preferences for performing morally good actions over bad ones, and they suggest that this would be worthwhile even if it made performing bad actions psychologically impossible. Critics object that such a gain in moral behavior would not be worth the resulting loss to human autonomy. This debate has remained confined within the context of moral preferences. Genetic engineering for *non*-moral preferences (GENP) – such as enjoying music or athletics – however, has not been discussed. Since preferences – what an agent likes, values, or tends to desire – form the core of who she is and what she pursues in life, and since autonomy requires that an agent be her own person and pursue her own life projects, her autonomy might seem to be diminished if her preferences were selected before birth by a third party. Plausible as this may seem, we disagree. In this paper, we argue that parents could select for a wide variety of substantive (i.e. not merely insignificant) non-moral preferences without compromising their child's autonomy, provided that certain criteria that we propose are satisfied, e.g. the selected preferences must not be such as to inhibit the agent's capacity for rational deliberation, which is a key component of the conception of autonomy we employ. We then respond to two objections: (a) GENP would be inherently incompatible with autonomy, regardless of whether it meets any such criteria, and (b) even if GENP would not be inherently incompatible with autonomy, people might still regard it as an alienating influence and might regard their selected preferences as non-autonomous. We then argue that this second objection would be less forceful according to a more "externalist" rather than "internalist" conception of autonomy.

Keywords: genetic engineering; agent's autonomy; concepts of autonomy; human rights; genetic engineering for non-moral preferences (GENP).