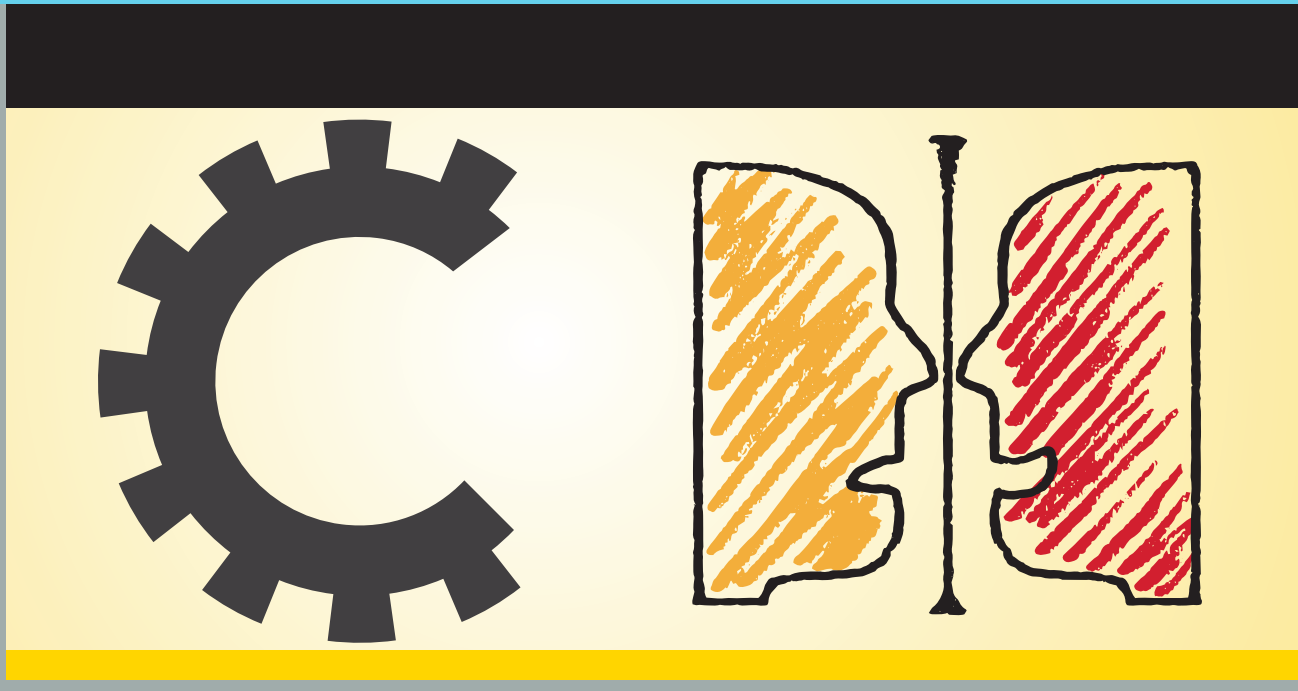
CURRENT DEBATES IN **INTERNATIONAL RELATIONS & LAW**

VOLUME 4



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IJOPEC PUBLICATION
London ijopec.co.uk Istanbul

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INTERNATIONAL RELATIONS & LAW

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IJOPEC PUBLICATION
London ijopec.co.uk Istanbul

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CRN:10806608
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United Kingdom

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CURRENT DEBATES IN INTERNATIONAL RELATIONS & LAW
First Edition, December 2017
IJOPEC Publication No: 2017/18

ISBN: 978-1-912503-05-6

A catalogue record for this book is available from Nielsen Book Data,
British Library and Google Books.

The publishing responsibilities of the chapters in this book belong to the authors.

Printed in London.

Composer:
Çelebi Şenel

Cover illustration created by Freepik

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THE GENIUS & THE IMBECILE: DISENTANGLING THE 'LEGAL' FRAMEWORK OF AUTONOMY IN MODERN LIBERAL EUGENICS, FROM NON-THERAPEUTIC GENE ENHANCEMENT USE IN GENE EDITING TECHNOLOGIES

Lau Pin Lean

Abstract

This paper intends to gravitate into a brief exposition of the framework of 'liberal eugenics' (often described as the more liberated, compassionate form of eugenics, distinguishing itself from the pejorative eugenics movements of the past, by employing an autonomous nature of decision making vis-à-vis parents and beneficiaries), considered from the perspective of non-therapeutic uses of gene editing technologies. Where emerging technologies (such as the gene editing technology known as CRISPR/Cas9) are concerned, democratic innovations need to be balanced against a social movement of a non-radical nature in the interest of enlightened medical discourse; taking into account that the variables of each regulatory space is often inundated with issues such as plurality, different ideals of morality and public opinion, and the determination of stewardship responsibilities, amongst others.

Specifically, this paper intends to extrapolate on the 'legal' formulation of the modified concept of 'autonomy' that is central to the liberal eugenics paradigm. In essence, it has been described as 'liberal' because the underlying justification for a selection process excludes intervention from a State, and centralizes the role of the family as the key decision-maker in adjudging the proprieties of both therapeutic and non-therapeutic medical treatments.

However, this paper hypothesizes that notwithstanding this 'gift' of autonomy, the legality of the concept in itself continues to raise the more discursive issues relating to gene modification/enhancement debates, germ-line modification, the savior sibling dilemma, distributive justice/access, disability, and considerations of primary/personhood of a human being, amongst others. This paper poses that the autonomous

element in liberal eugenics may be an illusory disguise to escape the shackles of past negativities, and may still require a more holistic and reflected discourse as part of a regulatory or governance framework.

Key Words: *Liberal eugenics, autonomy, privacy, reproductive liberties, law and bioethics, gene editing, human rights, technological regulation*

Introduction

I have a distinctly vivid memory from my childhood; I am seated on a leather-covered stool, a resplendent deep maroon in colour, embellished with shiny, brass studs around the edges. Before me, the smooth, silken-like polish of my Weinbach piano; and it was here I spent most of my sunny afternoons, a five-year old child, perched on my stool, struggling to let my smallish fingers fly across the ivory keys to the melodic gavottes of Bach, or the ferocious cantatas of Schubert. From my Weinbach piano, I moved on to the quintessential rock-star's tools (guitars): the harmonious frequencies of a Takamine, the edginess of a Fender Stratocaster and the blissful peace of a Kohala tenor. And when the digital age became the focus of modern lives, I gleefully exercised my musical inclinations, using my beloved instruments in conjunction with sophisticated music-making software and applications, furiously writing original pieces with the ease of technology. In present day, many years from the time of my recollection, music has become an integral part of my life, one that I cannot envisage my existence without. And now, I question, how much of the integration of music into my life, was actually through my own personal volitions? As a child, was I equipped with the appropriate mental and emotional faculties to determine the 'goodness' of a particular activity and the impact that it would have on my future? Or did I simply brave the tides of *'que sera, sera'* and trusted that the choices my parents made for me, would be for my personal benefit? In this manner, is the sense of 'autonomy' I now exercise in my musical choices, a product of birth, predilection or gravitational ease, or did it stem from the little pushes and prods of my parents in my formative childhood years?

If we were to answer this question, with the benefit of reflection of years in hindsight, and choose to resonate with J.S. Mill's concept of human liberty, (Mill, 1869) it is simply that children, in their own right as small persons, do not possess the necessary wherewithal to exercise personal liberties (Stanley, 2017). Whether there is a measure of truth in this abstraction, must be left to an alternative forum. It suffices to state that, although there

is some length and breadth of scholarship that seeks to critique the Millean exclusion of children (Mill, 1869, p. 89) from the discourse on the development of the self, and the factorial importance of liberty and autonomy in this development, the lack of "sustained analysis" (Stanley, 2017, p. 50) in this area points to the correctness of Mill's engagement on liberty (Stanley, 2017, p. 50). Other scholarly expositions have levied the accusatorial judgment upon Mill by postulating on the persistence of moral and legal paternalism; (Simões, 2011) rejecting the notion that "adult autonomy" (Stanley, 2017, p. 49) is a legitimate means of imposing one's choice over another person, namely, the child. If one were to accept the critiques on Mill's endorsement of a watered-down version of paternalism, then it must also logically follow that these critiques would similarly find disparagement in the parental exercise of decisions over their own offspring, which would then escort us beyond the exploration of naturally and socially accepted parental responsibilities.

In attempting to dissect the anatomy of these broad questions, this paper is essentially an exercise to bring us closer to our understanding of the concept of autonomy, and the decisions made in furtherance of that autonomy, based on the plethora of choices presented to us. In particular, this paper is interested in the scope in which parental autonomy (or adult autonomy) is exercised within the sphere of 'liberal eugenics' (Agar, 1998), first delving into the general framework of liberal eugenics and its apparent legitimacy and legality permeating of a eugenics purpose. Secondly, the paper will weave the discourse on liberal eugenics and its main component, autonomy, within the configuration of advanced scientific and medical technologies, focusing specifically on gene editing technologies (gene enhancements) and Pre-implantation Genetic Diagnosis ("PGD") used for non-therapeutic, non-medical purposes. Thirdly, the paper presents the hypothesis that the concept of autonomy in the convergence of these scientific advancements may simply be an illusion or disguise in favour of individual (parental) reproductive liberty and equality, because the more discursive issues (including the gene enhancement / modification debates, distributive justice and equality of access, disability rights, and the considerations relating to the primacy and personhood of human beings, amongst others) tells us otherwise. It is not possible, however, to plunge into a detailed investigative etude of each of these human rights concerns, and hence, the focus drawn will be briefly transposed in relation to a selection of these determinants. Finally, the paper calls for a reconsideration and re-evaluation of the concept of autonomy in liberal eugenics, especially from a legal perspective, on the basis of these increasingly discursive human rights considerations. An attempt to justify a restriction on full scale and complete autonomy and liberty in the non-therapeutic

use of these technologies is sought; through the imposition of a holistic, reflected and well reasoned regulatory or governance framework.

Therefore, how do we then begin to demonstrate the trajectory of autonomy in children, or, more specifically addressed in this paper, future offspring? Should we choose to accept, that as a child, I may have been 'directed' into a certain future plan by my parents, or is this simply a by-product of the natural ripples of parenting? The views in response to this question will undoubtedly be polarized by the affectations of our understanding of the concept of autonomy, and to whom it extends, with or without justifiable exclusion. Dare we be so bold as to say that parental decisions made for the welfare of their offspring, is usually motivated by a desire to provide 'the best' (in their reasoned opinion)? Dare we further say, that the innate desire to want 'the best' may disturbingly run close to some form of eugenics when it becomes humanly feasible to bestow upon this future offspring an actual 'the best' of human characteristics? These dialectic questions test the foundational tenets of autonomy, which is by no means, an alien concept in moral and legal philosophy. Although by its presentation, one is likely to recognize that a certain thing requires 'autonomy' on the part of the person exercising such decision, it is more difficult to conceptualize and distill the spherical scope of autonomy in different facets of everyday lives, particularly where children or future offspring are concerned. As a notion that continues to dominate debates cross-cutting the necessity of medical treatment and individual decision-making processes, for example, the elevation of liberty and autonomy to a "supreme status" (Coggon & Miola, 2011) is likely to stop one's vehemently contradictory view in his or her tracks, a form of 'conversation-stopper' in that sense.

Homemade 'Kitchen' Eugenics and the Birth of "Liberal Eugenics"

In an age where the digitalization and propertization of information, knowledge, and opinions, amongst others, reign as the fruitful successes of technological advancement, the simultaneous thrill and trepidation in medical sciences and technologies bring forth a squall of new ontological questions. They raise calculated possibilities for a new era where parents may truly give their children 'the best', vis-à-vis new lines of inquiry and knowledge in the human genome that not only have the capacity to treat previously-untreatable diseases of a genetic nature, but on perhaps a more macabre level, to "fulfill the longstanding dream of the eugenics movement." (Kevles, 1999) Let us now not delve into the most

trampled aspects of human rights, in Hitler's eugenics agenda of the Nazi movement during the Second World War, or the judgment of Justice Oliver Wendell Holmes in Buck v Bell (D. Galton, 2002, p. 58) in the United States (all of which have ruefully earned the term 'eugenics' its pejorative and despicable connotation); instead, let us choose to reflect on whether the continuing advancement in human genomics in our present time may signal the emergence of a 'new' eugenics. (Kevles, 1999, p. 90) Within the midst of prodigious titillation that new genomic developments and technologies may "yield a powerful arsenal of therapies and cures", (Kevles, 1999, p. 85) it is perhaps convenient to overlook the potential perils of misusing these ground-breaking genomic technologies where non-therapeutic applications are concerned, for example, relating to human enhancement. Or perhaps it is simply more agreeable to the palate, to trust that as human beings, we would not allow our basal Promethean hubris to 'remake nature', to overshadow the prime importance of treating and eradicating human conditions and diseases. In democratizing our abilities to make potentially better decisions about non-therapeutic medical treatments, the importation of a liberal element to 'new' eugenics (Agar, 1998) pronounce elevated claims about how we choose to view the concept of autonomy by shifting the responsibility of decision-making onto potential individual parents, instead of the state.

Enter CRISPR/Cas9, a revolutionary genome editing tool touted to be the latest breakthrough in the history of medical technologies, holding a vast wealth of promise and a battery of potential medical applications and interventions into human genes. [CRISPR is the abbreviation for Clustered Regularly Interspaced Palindromic Repeats, a "unique organization of short repeated DNA sequences found in the genome of bacteria and microorganisms" ("CRISPR," 2014), including human beings. Cas9 is an enzyme that occurs within our biological systems and in conjunction with a modified form of CRISPR vis-à-vis technology designed by scientists, is used as a pair of molecular scissors to cut or 'edit' strands of DNA; in this instance, parts of the DNA which contains abnormal or mutated genes]. With a capacity to 'edit' out genetic abnormalities, mutations and defective genes in human cells, CRISPR/Cas9, which has already been tested with success in early human embryos earlier this year, (Le Page, 2017) (in addition to dominating the legal, ethical and moral implications of genetic enhancements), also proves to be a formidable opponent in the consideration of future offspring conceived through in-vitro fertilization ("IVF") and pre-implantation genetic diagnosis ("PGD"). The intersection of science, ethics and medical treatment at this converging point in the future fate of pre-implantation

embryos, places a viscous strain on the already-proliferating legal, ethical and moral arguments about CRISPR/Cas9 and its intervention into the framework of life as we know it; and, with this, the recognition, that the more pompous we become about our achievements and advancements in modern societies that embody the cosmopolitan community of rights afforded to all of us, the more we spiral towards the eugenics direction that we seek to distance ourselves from.

The potentiality of damage through the proffering of choices and options that may come with CRISPR/Cas9 in non-therapeutic use, and without discounting the prospective abuses that may chance, allows the perforation of our thinly-veiled strives for a form of inconsequential perfection of human nature. This is considerably more acute when we think about potential uses (or misuse) or CRISPR/Cas9 in current reproductive technologies, specifically PGD. Intended from the outset to be a genetic diagnosis testing mechanism prior to the implantation of an embryo in the process of IVF, PGD has been subject to considerable debates regarding its propriety since the 1980s (Botkin, 1998). Bio-conservatives and dystopian theorists alike have warned of the impending erosion of humankind in the event the combination of these technologies could be easily available and result in a 'designer baby' normative (Stankovic, 2005). The imagination runs wild with the notion that technologies may someday allow us to 'design' the 'perfect' child, not simply one that is free from disease and illness, but also one that embodies the 'perfect' attributes (Brock, 2009. Brock disputes that there is no such thing as 'perfection' and that this ideation is relative to the experience and values of parents who make that judgment of 'perfection') that helps him or her succeed in life (Turriziani, 2014). The present scientific narrative, however, takes a more grounded view, citing that these fears remain theoretical in nature, and as advanced as medical technologies are at the moment, the fear of a future of designer babies is unfounded (Yong, 2017). Of course, this theoretical narrative would only be possible if we choose to accept a complete, unfettered imposition of autonomy indiscriminately respecting of (reproductive) liberty and choice. On this basis, the modified formulation of liberalism in eugenics, enabling a creeping entry of what may be perceived to be an advantageous exercise of will and liberty on the part of potential parents may not be as simplistic as it sounds. The continued emergence of highly-discursive issues raised by the idea of non-therapeutic human enhancement in liberal eugenics, signals that the concept of autonomy in the latter, is merely a stop-gap measure and temporary treatment of the symptoms of an underlying disease (one that tirelessly strives

for an ideation of 'perfection'), that continues to fester in a cesspool of uncertainty absent the stability of a regulatory or governance framework.

It would not be difficult to imagine this scenario: a couple sitting at their kitchen table, hands entwined, elated at the successful oocyte retrieval of the wife, both of them parleying the possibilities of what their future offspring would be like upon successful fertilization with the husband's sperm in in-vitro fertilization ("IVF"). "If he has your height, he could become the next Kobe Bryant!" she would say. "With your brains and intelligence, he'd be a successful corporate lawyer like you, and make plenty of money!" he would reply. Cue, happy laughter. In all instances, this would be nothing more than a regular conversation between a husband and wife, excited and hopeful to welcome all possibilities of a new child, picturing the idyllic future their offspring would have. Would this scenario be arguably be more concerning, however, if said couple found themselves in the position of being able to realize the characteristics of the future child they would want? "Would you like blue eyes or brown?" she would ask, leafing through the pages of a catalogue of 'desirable' characteristics. "I don't care; I'd prefer if she could be a musical prodigy, preferably violin or cello, become world-famous and sell-out shows at Carnegie and the Royal Albert Hall," he would reply. "And we must make sure she doesn't have that tiresome polycystic kidney disease that runs in your family. Remind me to tell our doctor that." The question I would now pose, is to ask what commonalities or differences can be ascertained from these two scenarios. The difference lies in the simple fact that the first scenario is an aspirational visualization; the second is the ability to convert that aspirational visualization into reality, with the appropriate resources. In both circumstances, whether we choose to acknowledge it, is that eugenics works its mysterious will. In both cases, I'd refer to the commonality of one underlying theme: homemade "kitchen" eugenics, where a discussion between family members at the kitchen table is imbued with unsuspecting hints of eugenics fashion. A third scenario, however, is more bleak and somber in outlook, where these 'eugenics'-type decisions are made by parents, regarding the treatment of genetic conditions, or diseases, that have a high likelihood of being transmuted to a future offspring; in other words, for therapeutic purposes or medical treatment. This third scenario is beyond the scope of this presented discourse, and is not in contention in this paper, because the outcome of the decision-making process is based on the presumption to ensure the health and welfare of a future offspring, free from debilitating illnesses, diseases, or genetic conditions that may hamper his or her experience of human

life, what is commonly termed as 'therapeutic' treatment, 'correcting' an abnormality or defective component in the genetic makeup of the prospective offspring that would prevent them from functioning in their lives.

It must be made abundantly clear, that this paper is not a wholesale opposition to contemporary interpretations of what it means to engage in eugenics, neither is it an opposition to decision-making processes exercised by parents for their offspring. The demonstration that is sought here, is that the term, in itself, is one loaded with evocations of humanity's behavior at its worst in the understanding of our historical accounts. Additionally, the hesitation to use the word 'eugenics' is an understandable one, but the fallacy of humankind is to presume that we do not make eugenics-based decisions in our daily lives. In its ordinary historical meaning coined by Sir Francis Galton, eugenics means "well-born" or "of noble race", the study "of conditions under which men of a high type are produced" (F. Galton, 1883). The historical orbit of the theory of eugenics that we now know of, has been systematically characterized by an over-zealous commitment to the (perhaps misconceived) betterment of human citizens in a particularized society in a state. Notwithstanding the absence of a unified, single theory about the social philosophy of eugenics, historical accounts have demonstrated to us that the saturation of eugenics' components have influenced a variety of state-sanctioned eugenics practices. Contrary to popular belief, the dark history of eugenics did not begin with the Nazi regime. The latter had, in fact, been influenced by the early eugenics movements in the United States in the late nineteenth century that began with the Chinese Exclusion Acts of 1882 and 1902 (D. Galton, 2002, p. 91). The general drive to enhance the improvement of society, throughout the course of eugenics' history, has been marred by forced sterilization programs, mass murders and euthanizations, all of which acutely violate an individual's fundamental right of "life, liberty, or property", (Stone, Seidman, Sunstein, Tushnet, & Karlan, 2005. See: the Fourteenth Amendment of the United States Constitution) and viewed through the lens of modern constitutional jurisprudence, is even more appalling because of the fact that these were state-sanctioned. This is conspicuously ironic, because it is often accepted that the role, purpose and responsibilities of government or state, is, first and foremost, to protect its citizens (Heyman, 1991). But governments, state or federal, are often suffused with volatility, and we are no strangers to the reality of cronyism, mismanagement, corruption and tainted ideological or political agendas; and governments, like any changeable artefact in the corporeal world, can be overthrown or simply, fail in its duties and responsibilities.

On this basis, it is facile to accept that a shift in the paradigm of decision-making, a gift of autonomy to individuals in the body of citizenry, is a most attractive ideal, even if the underlying connotations swim the turbid waters of eugenics. From as early as the late 1930s, attempts were made within the European context (with specific reference to Germany), to found a more liberating form of developing eugenics philosophy. Scholarly denouement put forward strides to recognize eugenics selection in a more "natural and voluntary process" (Osborn, 1937, p. 395), by propagating a "freedom of parenthood" (Osborn, 1937, p. 391), which would consequently be in line with "the concepts of individual liberty and of non-interference by government" (Osborn, 1937, p. 395). Whether or not we choose to agree with the development of a specific eugenics philosophy at that point of time, however, should be premised within the context of an alternative forum. The containment of the profusion of morality, goodness and ubiquitous ethics should also be borne in mind, but cannot be meaningfully addressed within the confines of this paper.

Hence, the contemporary movement of liberal eugenics, in itself, is premised on the fact that should technological advancements progress to the point of safety and availability, then parents should be at liberty to use at their disposal, the full spectrum of these technologies for the purposes of enhancement of their future offspring. The allure of liberal eugenics pivots on the centrality of this choice: the shift in autonomy from state to individual, and the freedom from state interference in its subsequent exercise by individuals. Liberal eugenics finds one of its most prominent proponents in Nicholas Agar, who appears to have put forward a balanced theory that levitates between a conservative bioethics view, and a more radical trans-humanist perspective, but one that is also consistent with the concept of state neutrality. As a firm supporter of scientific and technological developments seeking to improve the quality of human life, Agar contends for the benefits that may be reaped from genetic treatments and engineering tools (Agar, 1998). Given a return to the two hypothetical scenarios mentioned above, Agar would be quick to argue that, should we focus on the veritable sustenance and orientation of a variety of "life plans", (Agar, 1998, p. 143) the 'new' eugenics foothold vis-à-vis tools of genetic engineering technology, is capable of presenting adequate constrains built into the exercise of autonomy (in this regard, bearing upon the parents of the future offspring), which will not interfere into this varied projected plan of the offspring's future, and will not be capable of directing the offspring only into the direction of one life plan (Agar, 1998, p. 141). This supports the view that "the family is the level of implementation" (Wiesenthal &

Wiener, 1999, p. 385), and because the target of 'new' eugenics is robustly rooted at the DNA level (ear-marked in the scientific, chemical or structural discrepancies in DNA), and not within societal structure in the manner of the old eugenics (Wiesenthal & Wiener, 1999, p. 385), the voluntariness and flexibility of liberal eugenics is a far-cry from its ominous ancestor.

Enthusiastic defenders of liberal eugenics further enunciate that the removal of the 'offending' element of past eugenics movements (that is, the coercive edict issued by the state) would result in varied, diverse options in the choices to be exercised by parents for their future offspring. The old-fashioned eugenics reeked of extreme disparity, and was guilty of its somewhat successful efforts to "produce citizens out of a single centrally designed mould". (Agar, 1998) The implication of this "single centrally designed mould", as Michael Sandel correctly identifies, is that "its burdens fell disproportionately on the weak and the poor, who were unjustly sterilized and segregated" (Sandel, 2004, p. 60). In the past, it is clear that the marginalization of these specific groups; of the 'feeble-minded' or "imbeciles" (Burrus, 2011), the disabled, the diseased, the lepers, for example, have carried forward in the recesses of our darkest memories. The fear of a return to these dark times, therefore, is a reasonably founded one.

On this basis, political philosophers have put forward arguments that if the abhorrent aspects of state-sponsored eugenics is removed from the equation, and the outcomes of the tools of genetic engineering are evenly and fairly distributed to the general population at large, then the 'eugenics' as we know it is no longer in existence; and therefore, becomes unobjectionable (Buchanan, Brock, Daniels, & Wikler, 2001). Given this reasoning, then the practice of liberal or modern eugenics based on the fundamental tenets of individuality, and liberty, should be differentiated and accepted. Gyngell and Douglas further illuminate by reference to Robert Nozick's proposal (Nozick, 1974) for a "genetic supermarket" (Gyngell & Douglas, 2015, p. 242) whereby "it involves no centralized decision fixing the future human type(s)" (Nozick, 1974). The "genetic supermarket" would be the Walmart of modern genomic societies; and potential parents would be the sole arbiters in determining the 'products' (characteristics, attributes, and such) that they intended to buy. Despite these justifications, however, this is not to say that this new form of liberalism, does not also evoke a form of squeamishness from the less-convinced, for reasons that primarily evoke the ethics of humanity and human nature, (Habermas, 2003), vis-à-vis

the attribution of choice and responsibility to parents, instead of a rumble through the lottery of chance and the cosmos. The contention presented in this paper recognizes this paradigm shift, but also questions whether the transposition of choice and autonomy, is truly an enlightened one, which should allow unfettered access and a complete freedom cognizant of a "right" bestowed upon parents in respect of their offspring.

Of Autonomy, Choices and Helicopters

One of the key arguments put forward in this paper rests on the interpretation of the exercise of autonomy, and queries the manner in which it has been imbued with legal (and philosophical) reasoning within the context of self-determination. For example, within the bulbous sphere of medical treatment and services, the principle for the respect of autonomy makes its presence felt in the doctrine of informed consent (Article 5, Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, Conseil de l'Europe, 1997) ("the Oviedo Convention") and commands the stage through dimensions of clinical practice and ethics. The establishment of the doctrine of informed consent is therefore a fundamental tenet in the relationship of knowledge, communication, interaction and understanding between medical and research professionals and patients, resting on the premise that an individual may then make full and conscious decisions in consenting to any form of medical treatment or interventions. In fact, a scrutiny of the Oviedo Convention reveals that a majority of its principles and articles are both sophisticated and discerning in light of respect for the principle of autonomy. From the legal perspective, however, the depths of the concept of autonomy, having its roots in Greek philosophy (Wardrope, 2015), has been given importance vis-à-vis innumerable pronouncements, direct and indirect, through both national and international legislations and treaties, (such as the Oviedo Convention), and also form the underlying values of various constitutional systems.

With advancements made in medical technologies and research environments, a modification of the exercise of autonomy should be encouraged to commensurate with the changing dynamics of informed consent in clinical health settings as well. The proponents of the liberal eugenics coalition appears to have struck a chord insofar as the exercise of autonomy is concerned in the decision-making process to reap the benefits of gene editing or engineering tools. At first blush, it is possible to find that the equivalency of choice

and autonomy afforded to parents of future offspring is more acceptable on a moral level in comparison to eugenics movements of the past. However, the heart of the matter is intractable insofar as "[making] children into products of deliberate design" (Sandel, 2004, p. 60) is concerned. I posit that the legality of the concept of autonomy in this instance continues to falter in the light of the more discursive issues that provoke the framework of human rights considerations. In particular, the coupling of parental autonomy in liberal eugenics (for non-medical, non-therapeutic purposes), together with one of the most contentious debates in the field of bioethics, that of gene enhancements and the accompanying germ-line modification concerns, is a surefire, explosive combination that will continue to provoke the fiery discourse on interventions into the human genome, particularly where the exercise of choice through the options proffered by gene editing technologies, are not exercised by the intended beneficiary or recipient of the technology- the future offspring. Without the intention of disrespect for the freedom of parenthood and choices made by parents for and on behalf of their children, I posit that choice and autonomy within the contemplation of liberal eugenics is merely a cloak, and does little to dispel the salient legal and ethical debates that continue to mar the landscape of controversial uses of new and emerging technologies.

Even to the untrained neophyte, it may be inescapably logical that non-therapeutic enhancement treatments for future offspring cannot be a bad thing. John Harris states that we should view enhancement with positivity because the very meaning of enhancement is to make things better, and therefore, he questions how an enhancement could be viewed as something negative (Harris, 2010). Defenders of genetic enhancements, such as Oxford philosopher, Julian Savulescu, (Savulescu, 2001) believes in a moral requirement on the part of parents to 'enhance' their children, vis-à-vis a principle he calls "procreative beneficience" (Savulescu, 2001, p. 413). This principle, in essence, puts parents at the forefront of choice-making, to ensure that they "select the child, of the possible children they could have, who is expected to have the best life, or at least as good a life as the others, based on the relevant, available information." (Savulescu, 2001, p. 413). Some measurable contentions have been levied against how one would ascertain the 'goodness' of a human life, citing distinctions that may be drawn between medical treatment and genetic (medical) enhancement. Pro-enhancement philosophers, Savulescu (Savulescu, 2007) and Harris (Harris, 2010), however, refute this claim and both deem that this distinction is not morally significant (Selgelid, 2014, p. 9). In fact, the provision of reasoning in this context

rests on the supposition that to enhance is to therefore increase the general well-being and welfare of an individual, and by this invocation, treatment is "a special case of increasing the well-being and/or functioning of those with diminished amounts of such things" (Savulescu, 2009) and is therefore a "subset" of enhancement. Harris provides provocative arguments about how we already accept and widely practice medical and non-medical enhancements in the context of modern life, such as vaccinations, special schools, food supplements, music lessons, and the like (Harris, 2010), all of which pursue the bid to increase the abilities of children. If these practices in child-rearing are commonplace, and in fact, viewed as universally acceptable, then we should question why genetic enhancements through a similar process of selection of the 'best' attributes, is morally problematic. (This presupposes, above the other legal and ethical concerns, that safety and risks are no longer objectionable issues, in the same manner that medical or other therapeutic treatments are also considered safe enough).

On the basis of intersection between the enhancement debates provided above, with the new eugenics, Agar argues that the freedom and autonomy of choice and decisions imparted upon parents provides a deeper-seated respect for reproductive liberty and human rights, (Agar, Brock, Lauritzen, & Prusak, 2006), certainly a far cry from the old eugenics programs, which provoked extremely vehement objections because of "the use of state power in the pursuit of eugenic aims." (Selgelid, 2014, p. 8). The defenders of contemporary eugenics enhancements further pronounce that the development and continuous evolution of human rights protection in modernized democratic societies has been implanted deeply enough to ensure that the past atrocities of the old eugenics movements are not repeated (Selgelid, 2014, p. 8). The fundamental protections and freedoms accorded by international and regional human rights instruments such as the Universal Declaration of Human Rights, and the Convention for the Protection of Human Rights and Fundamental Freedoms (the European Convention on Human Rights, in short), amongst other key human rights instruments, accord contemporary societies with a much more stringent and higher level of human rights recognition and protection than they had been imbued with in our past histories (Selgelid, 2014, p. 8).

Notwithstanding the permeability of the human rights discourse, the practical realities are often much harder to reconcile. Within the discourse of disability rights, for example, the narrative still remains highly polarized. Some disability advocates criticize the selecting-out

or negative selection of hereditable disability traits, or the avoidance of bearing an offspring that may have serious disabilities. Conversely, these advocates state that disability should be treated as "just another manifestation of human diversity" (Bognar, 2016) because disability is a "mere difference" (Basas, 2014). On the other hand, the "medical model of disability" (Savulescu & Kahane, 2011) takes an opposite stand by stating that disabilities such as dwarfism, deafness, or mental disabilities, for example, should be corrected if the opportunities to do so were to be made available to parents, because to consciously make a procreative choice to have a child with these disabilities, would be wrong. Since the promulgation of the liberality of eugenics rests on parental autonomy, which encompasses these decisions to either select-out, or maintain these disability characteristics, the implications become tangled in a web of irreconcilable debate. Because of this, and particularly in cases of mental disabilities, the implicational throwback of familiarity to old eugenics in its aim to eliminate "the feeble-minded" or "imbeciles" (Burrus, 2011) becomes very acute. Indeed, in Savulescu's and Kahane's attempt to consider a "welfarist approach" to disability, (Savulescu & Kahane, 2011, p. 45), they recognize that "conceptions of disability that associate it with deviation from the normal are entrenched in the public discourse, medicine and law" (Savulescu & Kahane, 2011, p. 50) and therefore, a dramatic "conceptual revolution" (Savulescu & Kahane, 2011, p. 51) would be necessitated. Within the context of the principles of equality and distributive justice, and with the recognition that inequalities do exist within the stratified layers of society, the intensification of these inequalities may possibly be exacerbated (Reiss & Straughan, 1996). Indeed, Selgelid states that "given that ordinary medical technology is not equally available to all, there is no reason to believe that enhancement oriented technologies would be either." (Selgelid, 2014, p. 9). Whether there is truth to the trepidation that enhanced individuals would, on a practical level, be able to pose advantageous over others, is still a subject matter that is being debated. Indeed, on this basis, Singer has stated "many of the advantages people will seek to ensure for their children will be advantageous for them only in comparative, not absolute terms." (Singer, 2009, p. 282), and he emphasizes the need to differentiate between an "intrinsic good" and "positional good", both of which essentially involve value judgments and the necessity to consider the benefits it may bestow on a social level. (Singer, 2009, p. 288). It is also concurrently irrefutable that inequalities that exist within societies should be a matter of social reconstruction by states, but this does not mean that we should also downplay the existing problems of inequalities: "the extent of inequality is a key consideration" (Selgelid, 2014, p. 11) in the determination

of arguments that seek to justify the restriction on autonomy and liberty in the use of these technologies.

The Illusory Gift of Autonomy

Posed against the topography of this background, this paper attempts to demonstrate that the root of the exercise of autonomy and choice may be a delusive constituent within the liberal eugenics framework, and in fact, is not as clear-cut as it may appear to be. Through the over-arching framework of the state working its 'invisible' hand (which I do not view as a necessarily evil occurrence), I posit that first, parental autonomy in making decisions relating to genetic enhancement of their future offspring, cannot be completely value-free; secondly, I echo the sentiments of Wiesenthel & Wiener (Wiesenthal & Wiener, 1999) that put forward the illusory and false sense of security in autonomous power as an extension of societal structures; and thirdly, I refer to Foucault's discourse on the existence of power relations in every human interaction, even between parents and children, "subject to negotiation, each individual having his place in the hierarchy, no matter how flexible it would be" (Foucault, 1983), as well "bio"-power and politicization of the human body by subjugation through social and covertly-political controls (Foucault, 1977).

Riding on the wave of Harris' justifications (Harris, 2010) for the enhancement of future offspring, and by virtue of existing mechanisms of improvement in which parents already do engage for their children, I turn to the highly criticized but tongue-in-cheek portrayal of 'Asian'-style parenting in Amy Chua's *Battle Hymn of the Tiger Mother* (Chua, 2011). In this biographical (and satirical) account of Chua's authoritarian parenting style, often referred to within parenting pedagogy as 'helicopter-parenting', I draw a preliminary hypothesis that "heavily managed, high-pressure child rearing" (Sandel, 2004) and the "trend towards hyper-parenting" (Sandel, 2004) does not drastically differ from concerted parental decisions taken to implement genetic enhancement technologies on their offspring. The beneficiaries of Chua's strict parenting style are her highly accomplished, Ivy-leagued daughters, Sophie and Lulu; and the biography describes Chua's hard-line methods in bringing up her children, pushing them through enormous amounts of study and music practice on a daily basis so that they could (and did) achieve the success that only many could dream about. However, Chua also received intense criticism on this, and many termed her parental methods as "abuse" (Cochrane, 2014). In *Harvard Girl*, (Weihua & Xinwu, 2000)

written in Chinese and hailed in the People's Republic of China to be the foremost parenting 'manual', special focus was placed on early education and how parents could raise successful children through a strict, methodical lifestyle and to be accepted into top-tier universities in the United States. (The subject of Harvard Girl, Liu Yiting, was not only accepted into Harvard to study applied mathematics and economics, but also received offers from Columbia, Yale and Wellesley). These examples demonstrate that the reality of child-rearing is not only saturated and particularized as part of cultural determinism, but also truly begs the question of autonomy on the part of the children or future offspring, and their parents, and whether it may be parental ideologies instead that have been imposed on these children. There is no argument that the successes of these children are attributable to their parents and the manner in which they were raised; and on this basis, there are modern examples where parents send their children to exclusive private education schools, or music lessons to hone the abilities of their children at playing the violin or piano, and dance lessons in the hopes of raising the next Anna Pavlova, and even providing nutritional supplements like gingko biloba vitamins to boost focus and memory. More disturbingly, studies have shown the increase of young adults' misuse of drugs like Adderall or Ritalin, in universities, due to intense pressure to do well in their studies, with some scholars calling for these drugs to be available to them without a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) (Flanigan, 2013), and as legitimized neuro-enhancement tools within a legalized framework.

Within the field of non-medical, non-therapeutic genetic enhancements, barring the difference on a molecular level, I pose that there is no significant difference between using gene enhancement technologies for the purposes of enhancing a future offspring's cognitive and intellectual abilities, versus parenting styles that serve to nudge their offspring in education, music, and other fields that may be regarded by parents as 'good'. In both instances, the desire and intentions of parents to provide the 'best' for their children is not disputed, although the motives for such desires and intentions will invariably be very subjective; but both instances also demonstrate that the heralding light of choice and autonomy is a flawed one. Agar's contention that genetic engineering cannot alter the future life plans of offspring (Agar et al., 2006) and therefore, maintains the functionality of autonomy, cannot be truly sustainable, because, as in the case of 'normal' child-rearing, a majority of parents do deliberately and concertedly push their children towards a definitive life plan; there is no guarantee that the decisions made in respect of genetic engineering

will not echo the same sentiments. It is, of course, arguable that the expansion of a child's life plan, following the initial directedness of parental decisions, may evolve into an unassociated and distinct future life plan; but it should also be recognized that the subsequent trajectory of this later life plan may have been fundamentally affected and heavily influenced by the initial directedness of parental decisions; in a similar manner that decisions by parents to genetically enhance their children may be canvassed. The 'autonomy' therefore exercised by parents, in this manner, is value-laden, burdened with societal expectations of a 'good life', and in some instances, may be a projection of the parents' internal unconscious ideologies and desires of their definitions of a 'good life' for themselves.

The concept of autonomy in liberal eugenics and gene enhancement also takes a slippery fall when we examine the structural architecture of equality, citizenry and individual relationships within the function of society. Wiesenthal and Wiener (Wiesenthal & Wiener, 1999, p. 390) posit that the new eugenics do not particularly lead to true empowerment and true autonomy. Quoting Freeman Dyson, (Dyson, 1997) who raised the provocation question whether scientific advances do truly empower individuals, Wiesenthal and Wiener state "whether true or false empowerment exists if whether scientific advances or technology has provided more freedom of choice to the individual, or whether it has enabled the forces of social control to better direct, supervise, impose, or enforce its will and decisions upon the populace."(Wiesenthal & Wiener, 1999, p. 390). They further state that true empowerment "reduces societal control over the individual by shifting power from the government… to the individual." (Wiesenthal & Wiener, 1999, p. 390). The paradox, however, in this shift of power, is that individual choices made are often inextricably linked to some variation of societal control with links to communities; an informal mechanism of social control and a possible watered-down version of cultural and societal hegemony. With the appearance of conferring greater choice upon individuals, namely parents, how are ethical values then to be determined within the scope of communities? Parents are already choosing endowments that may lead their children down the path of "socially defined success" (Wiesenthal & Wiener, 1999, p. 391), and in this process, the empowerment in genetic decision-making has the effect of transforming genetic structures into a consumer by-product (Wiesenthal & Wiener, 1999, p. 392). When consumerism and the outcomes of gene enhancement becomes entangled, so too does autonomy and decision-making; the truth of the matter lies in the fact that true empowerment only lies with those who are wealthy and may have access to these enhancement

services, and therefore, reminiscent as a "symbol of conspicuous consumption" (Wiesenthal & Wiener, 1999, p. 392).

Finally, I turn to Foucault's discourse on power relations, (Foucault, 1983) and draw analogous parallelism to the relationship between state and citizens/individuals, and particularly, between parents and child, as a means to dismember the illusive hold of autonomy in liberal eugenics and gene enhancement. Within the milieu of the natural course of human interactions, Foucault has rightly emphasized the existence of power relations in *omnium gatherum*. The expansive breadth of his work also reveals a fascination with sciences and technology; this I view to be a fully-functioning theme on the means to identify the politicization of individuality within the domination framework, referring to this as the "political economy of the body" or "political investment of the body" (Foucault, 1977, pp. 25–30), of "power" (Foucault, 1977), "knowledge" (Foucault, 1977, p. 27) where he states "we should admit rather that power produces knowledge…..; that power and knowledge directly imply one another; that there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations"; and "the body" (Foucault, 1977, p. 25). With the backdrop of genetic modification of human beings, genetically modified organisms, embryonic stem cell research, the proliferation of bio-data and bio-banking, and other such advancements that have come to polarize our philosophical, legal and ethical discourses, this is consistent with Foucault's moniker of these issues: "biopolitics" or "biopower" (Foucault, 1976). If we do agree with the alignment of Foucault's theories on the existence of omniscient power relations that exist at every level of human interaction, then the underlying reason for the legitimacy of autonomy may come into question through the influence of these power relations.

I pose that an analogy can be drawn from visiting the scope of power relations between citizens and state, considering the interplay between law and legal regulation, with 'architectural regulation' (Lessig, 2006. The 'architectural regulation' initially coined by Lessig refers to "Code" as a means of regulating cyberspace, but has been developed in recent years to encompass a broader means of regulatory design that can sometimes serve to 'complement' the operability of formal laws). Hence, I pose that the architectural framework of regulating societies (Tien, 2005) can sometimes be as powerful as the textual rules of the law and legislation. The operation of social controls that regulates norms of conduct

vis-à-vis the law (which controls and enforces sanctions on behaviors after the fact or action) is supplemented through the *fait accompli* in the construct of architectural regulation, an incidental method that facilitates the present conditions of action, social settings and resources available to individuals through constraints on some behaviors, which then make other behaviors possible. (This can be distinguished with laws that deal with consequences, actions or behaviors after the fact, (Lessig, 2006, p. 237) whereas architectural regulation presents an immediate barrier to certain consequences, actions or behaviors.) This can change the manner in which the nature of rules are presented and enforced because architectural regulation has the capacity to "design out" individual decisions and actions (Tien, 2005, p. 3). In this manner, the exercise of individual liberty and autonomy, may be disfigured vis-à-vis the creation of social norms (established through architectural constraints) that seemingly give rise to that that liberty and autonomy. Consequently, I view that this has the capacity to preserve the "politicization" of human bodies (Foucault, 1976) in the manner put forward by Foucault, and hence, amounts to an 'invisible hand' that continues to be exerted by the state. In the very same manner, the dynamics of these power relations within the context of a family is also prevalent, and the beacon light of equality sought between relations is inevitably unbalanced in favor of the party with a stronger positioning, made apparent through the fragmentations of power, knowledge and control.

This is not to say, however that this 'invisible hand' is invariably negative; in many ways, I predicate the necessity of some measure of state involvement because the discrete nature of liberal eugenics and gene enhancement technologies goes beyond the frontiers of human life. The conjecture made here is simply that the exercise of autonomy really is not fully autonomous, and cannot be fully appreciable in the manner described of liberal eugenics.

Conclusion

I invite us all to reflect on a democratic diversity of opinions that leads to the exercise of autonomy in particularized ways. I surmise that the rallied efforts by liberal eugenicists in framing autonomy are still in deficit because it is very difficult to articulate and implement. If we are to be honest with ourselves, and are faced with possibilities to choose between an enhanced (The Genius), versus 'normal' or disabled (The Imbecile), future offspring, we are likely to find ourselves at the crossroads of moral, ethical and in some

instances, religious dilemmas. Jasanoff has proclaimed that there is a highly "complex relationship between our technologies, our societies, and our institutions, and the implications of those relationships for ethics, rights and human dignity" (Jasanoff, 2016): the intense polarization of opinions and concerns in bio-medical issues generally is evidence of this truth. I pose that we should attempt to obviate sugar-coating concepts that induce the "yuk factor" or "wisdom of repugnance" (Kass, 1997) within ourselves, and the issues raised in this paper certainly do that without the necessity to exert much effort.

Instead of presenting the concept of autonomy in liberal eugenics as one reminiscent of the full spectrum of ease, individual liberty and pretty rainbows, I put forward that democratic innovations like these, no matter how advantageous they may be to humankind, must be balanced against a social movement of a non-radical nature in the interest of enlightened medical discourse. The key is not to allow ourselves to be deceived into a belief of full and complete autonomy, viewed through rose-tinted spectacles; it is more meaningful and useful to understand the shortcomings of how autonomy operates in liberal eugenics, and to take advantage of these shortcomings to begin questioning how we may strike a balance. Understanding that it is often easier said than done, Jasanoff states that we may begin by inducing a fundamental reboot into our views of ethics within the context of science and technologies (Jasanoff, 2016, p. 86); taking into account that the variables of each regulatory space is often inundated with issues such as plurality and different ideals of morality and public opinion. This, however, is the task for bioethicists, policy makers, lobbyists, and legislators, in establishing and extending a workable, sustainable regulatory or governance framework that monitors the use and limits of these specific technologies, especially for non-therapeutic purposes. The 'invisible hand' continues to wave its influence over all aspects of contemporary societies, but the challenge then would be to strike a composite balance between a justifiable restriction of autonomy in reproductive liberties and technologies, and the simultaneous deference to the protection of fundamental human rights.

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