



# EQUALITY OF RESOURCES AND COMPULSORY LICENSING OF COGNITIVE ENHANCEMENT DRUGS

IGUALDADE DE RECURSOS E LICENCIAMENTO COMPULSÓRIO DE DROGAS PARA O AUMENTO COGNITIVO

DENIS FRANCO SILVA\* | CARLOS A. ROHRMANN\*\*

## RESUMO

Em um futuro próximo, a comercialização e disseminação do uso de fármacos buscando aperfeiçoamento cognitivo revela-se provável. Drogas desenvolvidas para fins terapêuticos - como o ritalina e o modafinil – já são frequentemente usadas incorretamente como meios para o aprimoramento cognitivo. Supondo que a principal objeção ao desenvolvimento e mercantilização de tecnologias voltadas ao aperfeiçoamento da base biológica humana refere-se ao risco de aumento de desigualdades substanciais entre pessoas de diferentes classes sociais, o objetivo deste trabalho é investigar o uso de mecanismos de licenciamento compulsório como meio de promoção de acesso universal a drogas desse tipo. Partindo da definição “welfarista” de aperfeiçoamento humano de Julian Savulescu, e também da ideia de igualdade de recursos de Dworkin, as razões que informam o mecanismo de licenciamento compulsório serão analisadas para mostrar que desigualdades de acesso a possibilidades de aumento de bem-estar subjetivo autorizam sua utilização da forma como já ocorre em casos de saúde pública.

**Palavras-chave:** Licenciamento compulsório; bem-estar subjetivo; igualdade; aperfeiçoamento cognitivo.

## ABSTRACT

The use of pharmaceuticals to enhance human capabilities is being proved more and more to be feasible. In fact, drugs developed for therapeutic purposes – like ritalin and modafinil – are frequently misused as means to cognitive enhancement. Assuming that the most powerful objection on the use of human enhancement technologies is the risk of increasing substantial inequalities among persons of different social classes, the aim of this paper is to investigate the use of compulsory licensing mechanisms to grant universal access to drugs of such kind. Departing from Julian Savulescu’s welfarist definition of enhancement, and also from Dworkin’s version of equality of resources, the reasoning underneath compulsory licensing mechanisms will be addressed in order to show that inequalities regarding possibilities of increasing ones subjective welfare can sustain a claim for compulsory licensing as strong as those grounded on public health issues.

**Keywords:** Compulsory licensing; subjective welfare; equality; cognitive enhancement.

\* Doutor em Direito pela Pontifícia Universidade Católica do Rio de Janeiro (PUC-RJ). Mestre em Direito Civil pela Universidade Federal de Minas Gerais (UFMG). Professor Associado do Departamento de Direito Privado da Faculdade de Direito da Universidade Federal de Juiz de Fora (UFJF).

*denis.franco@uffj.edu.br*

\*\* Doutor em Direito pela University of California, Berkeley. Mestre em Direito Comercial (UFMG). Professor do Mestrado da Faculdade de Direito Milton Campos. Titular da Academia Mineira de Letras Jurídicas. Procurador do Estado de Minas Gerais.

*crohrmann@mcampos.br*

Recebido em 19-5-2017 | Aprovado em 19-5-2017<sup>1</sup>

<sup>1</sup> Artigo convidado.



## SUMÁRIO

**INTRODUCTION; 1 APPEALING TO HUMAN NATURE IN BIOETHICS; 2 HUMAN ENHANCEMENT AND EQUALITY; 2.1 Understanding equality as a political value; 2.2 Why enhancement drugs shall be admitted in the market?; 3 INEQUALITY AND UNIVERSAL ACCESS TO COGNITIVE ENHANCEMENT DRUGS: THE CASE FOR COMPULSORY LICENSING; CONCLUSIONS; REFERENCES.**

### ■ INTRODUCTION

One must assume that humans have always tried to enhance themselves by improving their mental, physical and emotional capacities. Biotechnologies already on the horizon can enable humans to be stronger, smarter, to have better memory, to live more and even enjoy richer emotional lives. In fact, drugs initially developed for therapeutic uses are already being frequently misused as enhancement drugs. For example, ritalin and modafinil (developed, initially, to treat TDHA and narcolepsy) are being used in a growing scale by students and professionals as means of improving focus, concentration, memory and state of awareness.

How should a legal system deal with the forthcoming possibility of biomedical enhancements is still in dispute and appears to be highly controversial.

Stefano Rodotà asks about the entitlement and fate of some fundamental rights, “*not surprisingly historically identified as rights of man or human rights*”, that “*in human nature have its foundations*”, such as the right to body integrity<sup>2</sup>.

Francis Fukuyama goes further beyond, asserting that the idea of political equality rests on the empirical fact of natural human equality:

Underlying this idea of the equality of rights is the belief that we all possess a human essence that dwarfs manifest differences in skin color, beauty, and even intelligence. This essence, and the view that individuals therefore have inherent value, is at the heart of political liberalism (...). If we start transforming ourselves into something superior, what rights will these enhanced creatures claim, and what rights will they possess when compared to those left behind?<sup>3</sup>

One can clearly see that the reasoning above exposed proceeds from an essentialist approach to morality and law. In short, it is the idea of human nature or essence as a source of substantive moral rules or the belief that it is possible to derive substantive moral rules from reflection on human nature.

Although many contemporary scholars appeal to the idea of human nature or human essence, these concepts usually lack any kind of definition. So, what is meant when they talk about human nature?

<sup>2</sup> RODOTÀ, Stefano. Il corpo e il post umano. In: *Studi in onore di Davide Messinetti*. Napoli: ESI, 2008, p. 01.

<sup>3</sup> FUKUYAMA, Francis. *Our Posthuman Future: Consequences of the Biotechnology Revolution*. New York: Farrar Straus Giroux, 2002, p. 09.

The idea of banning or forbidding enhancement technologies departing from a concept of “human nature”, especially when talking about enhancement drugs, is the origin of two big problems<sup>4</sup>:

- 1- Enhancement drugs enter the market through the “backdoor”;
- 2- Enhancement drugs are accessible, through questionable means, by a very few members of society.

The idea of “enhancement drugs entering the market through the backdoor” raises concerns about public health and safety for consumers of such medicines. By entering through the backdoor one means that drugs that were developed for therapeutical purposes, without tests or studies concerning the frequent use and possible side-effects and long term consequences in healthy people are being used by a great number of people as a non-therapeutical drug.

The second problem is a problem of access to such medicines. Considering that enhancement drugs, that improve performance and cognitive capabilities might represent some kind of advantage over other people in innumerable social contexts, these drugs arise in the market as positional goods and restricted access to it represents a situation of inequality of resources that lead to increase and perpetuate existing social inequalities regarding wealth, education and social class.

The aim of this paper is to present arguments regarding the embracement of an enhancement enterprise and, assuming the possibility of development and commercialization of cognitive enhancement drugs, to propose at least one mechanism of state intervention to cope with inequalities derived from restrict access: compulsory licensing.

## 1 APPEALING TO HUMAN NATURE IN BIOETHICS

Appeals to human nature usually play a very specific role on the debate concerning bioethics: human nature acting as a feasibility constraint on morality and thus, on law, which is a logical inference from the assumption of the essentialist premise exposed above regarding the entitlement of rights or the origin of some political values.

The idea of human nature as a feasibility constraint on morality and law assumes that a realistic approach on understanding morality must take into account cognitive and motivational limitations of human beings: the biological “hard-wiring” we happen to have so that any plausible account of our moral obligations to others must take this into consideration. “Ought” implies “can” and what we can do is limited by our evolved biology<sup>5</sup>.

This view is intrinsically connected with the idea of human nature as a constraint on the good for us, an argument with Aristotelian roots: the idea that a being’s nature determines

<sup>4</sup> BUCHANAN, Allen. *Beyond Humanity? – The Ethics of Biomedical Enhancement*. Oxford: Oxford University Press, 2011.

<sup>5</sup> BUCHANAN, *op. cit.*

its good by constituting a constraint on what can count as a good life for that particular being. If something is beyond the limits of our nature, pursuing it is morally wrong<sup>6</sup>.

Though, the analysis of bioconservative arguments based on the concept of human nature, and therefore insufflated by their version of “normative essentialism” on this issue, reveals a much more pungent fear: inequality. In fact, although referring to concepts like “human nature”, the underlying reasoning reveals arguments dependent upon the relation between the concepts of person and equality, with the following structure:

1. There is a human essence.
2. This human essence is responsible for our equal moral status.
3. This human essence would be changed if we were to enhance ourselves in various ways.
4. Therefore if we enhance ourselves in various ways we will no longer all be of equal moral status

It is clear that informing the bioconservatives objection on the human enhancement enterprise there is a fear of denial of the moral status of person to those “left behind”, therefore threatening our equal moral status, which generated an appeal to the idea of human nature. The aim of bioconservative claims seems to be, at first, to preserve something as a “detached value”<sup>7</sup>, wich means that even if empirically those whose status of person was denied were better-off in well being it would be morally wrong to do so.

However, it doesn't seem really plausible that the real concern is with formal equality, especially if it is considered that any biotechnological intervention on the human body to be considered an enhancement will, at least at first glance, be seen as an advantage or a positional good.

Thus, the real problem that lies under the debate between bioconservatives and enhancement procedures supporters is, in fact, if substantive inequalities derived from an enhancement enterprise should be accepted or if enhancement procedures itself should be permitted considering the risk of increasing social differences.

## 2 HUMANS ENHANCEMENT AND EQUALITY

All persons are equal. Could the use of bioenhancement technologies invalidate such claim?

---

<sup>6</sup> Authors like Michael Sandel (The case against perfection. *The Atlantic Monthly* 293(3): 50-62, 2005) and Erik Parens (The Godness of Fragility: On the Prospect of Genetic Tecnologies Aimed at the Enhencement of Human Capacities. *Kennedy Institute of Ethics Journal* 5(2),141-53, 1995) hold that enhancement is objectionable precisely because it involves the removal of limitations on what can be done by human beings, since there are irreplaceable goods, like perseverance, that depend upon having limitations.

<sup>7</sup> DWORKIN, Ronald. *Sovereign Virtue: the teory and practice of Equality*. Cambridge: Harvard University Press, 2000.

To answer this question, and also to address the concerns which have been presented regarding the entitlement and fate of the human rights idea, one must first understand what is meant when we talk about equality, a concept which certainly needs to be clarified, in spite of the common assumption that equality simply means having the same of something. But the same of what?

Would it be everybody having the same level of happiness? The same amount of resources or material goods? The same opportunities?

It must be noticed that bioconservative claims reflect an essentialist normative approach according to which equality derives from and certainly means everybody sharing the same biological constitution (the one regarding the human gender) and substantive differences are the result of a natural lottery or brute luck.

## 2.1 Understanding equality as a political value

The first step to fully comprehend the challenges and practical problems related to some of the scientific breakthroughs that appear to be next step in human evolution (artificial intelligence, bionics, use of enhancement drugs, genetic manipulation, etc.) seems to be to clarify the differences and the relation of the concepts of equality as a political value and equality as a situation of substantive or material equivalence among individuals.

The value of equality does not demand, for its emergence, empirical or concrete situations of equality regarding how any good or resource is naturally assigned between the members of a community. In fact, the value of equality, generally considered, can only emerge in a political community in the face of a concrete situation of inequality found among its members.

Individuals show, between themselves, innumerable differences regarding, for instance, their sex, age, talents, abilities, conceptions of the good and, therefore, different interests and goals. Considering, also, that a society in which every member proceeds from the same starting point is nothing but a counterfactual exercise, differences regarding birth, such as inherited wealth, and also education, social class and other environmental factors must be considered as always present.

The existence of substantive or empirical inequality among its members is, indeed, the factual situation that allows equality being considered a political value in a community. Talking about equality in practical reasoning means talking about a value, not a fact, that can be defined as an equal concern, from a political community, for the fate and wellbeing of its members<sup>8</sup>.

This equal concern, of course, can only be possible if substantive or material differences are taken into account. Despite not aiming to sustain an equality principle that reflects the broad idea of equality of welfare, meaning the mathematical equivalent of goods or resources being constantly distributed and redistributed between all members of a society – what certainly would leave us with a not very compelling idea of equality, due to its disregard

<sup>8</sup> DWORKIN, *op. cit.* One must notice that such definition stands even in the face of other contemporary different conceptual frameworks for a theory of justice, such as the one of John Rawls (2000). In fact, it is a definition of equality that, considering its rationalist limits, would fit even in a kantian framework.

for personal accountability for choices or decision making –, it is clear that proceeding from the crucial distinction in practical reason between chance and choice as basis for accountability, a principle of equality demands embracing a principle of difference or differential treatment so to express equal concern to all members of a community.

Therefore, equality, as a political value:

- a) Assumes that persons present substantive differences amongst themselves, due to chance, including differences in their biological constitution or biological “hardware”, thus presenting, also, different interests, conceptions of the good life, objectives and goals.
- b) Is conceived so to demand unequal treatment of different concrete persons aiming redistribution or compensation in favor of the worst-off, when talking about resources or regarding minimal conditions for different interests, goals or conceptions of good life to be pursued, without disregard for accountability<sup>9</sup>;

A partial conclusion can now be presented, which is that the existence of substantive differences or different conceptions of the good or interests on the factual level does not threaten equality as a political value. Persons are equal, demanding equal concern and never counting in the political spectrum as more than one.

## 2.2 Why enhancement drugs shall be admitted in the market?

Applying the above reasoning about equality as a political value when facing practical problems related to the use of body-pervasive technologies – especially those commonly referred to as human enhancement technologies –, demands a slightly deeper level of refinement. Mostly because, in this case, fear of inequality arises from the assumption that non-enhanced subjects (those who choose not to enhance themselves or whose parents have chosen not to enhance their children) will be left behind in the political spectrum, due to claims of moral superiority made by persons that had enhanced their physical or cognitive capabilities.

Thus, the real problem that lies under the debate between bioconservatives and enhancement procedures supporters is, in fact, if substantive inequalities derived from an enhancement enterprise should be accepted or if enhancement procedures itself should be permitted considering the risk of increasing inequality.

To approach this problem one must define what counts as an enhancement. Regarding to this, it is assumed, here, a so-called welfarist account of human enhancement, proposed by Savulesco, Sandberg and Kahane. This means “any change in the biology or

---

<sup>9</sup> The nature and extent of such positive discriminatory measures, and also, of course, of its content, is in dispute. Though, it can't be denied that even the aristotelic conception of equality assumes empirical inequalities by chance and demands some amount of substantive unequal treatment as a political choice. This fact is highlighted so as to answer in advance any objections to such parcial conclusions on equality that are made through the denial of Rawls or Dworkin's framework.

psychology of a person which increases the chances of leading a good life in the relevant set of circumstances”<sup>10</sup>. It is important, also, to clarify that this account makes no use of the common distinction between medical treatment and enhancement as the so-called “not-medicine” approach. The focus is on subjective welfare, not in the idea of normal species-functioning.

If one assumes this definition of enhancement, Dworkin can explain very well what really is at stake when talking about human enhancement:

Our physical being – the brain and body that furnishes each person’s material substrate – has long been the absolute paradigm of what is devastatingly important to us and, in initial condition, beyond our power to alter and therefore beyond the scope of our responsibility, either individual or collective”<sup>11</sup>.

When it is possible to change more and more of what was formerly understood as “given” the boundary between “chance” and “choice” tends to disappear, affecting our notion of shared responsibility for others whose choices – as opposed to chances or luck – differ from our own or differ from the norm. If enhancement procedures and, therefore, the outcome of such procedures, is a matter of choice, what responsibility would enhanced persons hold before those “left behind”?

Unlike the considerations regarding a “human nature” or “human essence” that grants us equal moral status, the idea that enhancement technologies are a threat is based, in this conception, in the claim that any social cooperation system and the mutual recognition of individuals as persons depends on a so called “natural lottery” regarding health, intelligence, strength, wealth, social class and skills. The fact that no one is responsible for its winnings or losses in this natural lottery and the indetermination of future results would be what allows the idea that all persons find themselves in a position of equality.

As one can see, this is clearly an attempt to treat derivative values as detached values, which means saying that enhancements are wrong “per se”, quite apart from any bad consequences it will or may have for any person. However, the supposed strength of the claim is based in the assumption that the position of non-enhanced persons will be worse and, specially, that the distribution of such enunciated talents is, in fact, out of our horizon of choice.

The boundary between chance/choice is no doubt a crucial one when talking about ethics, morality or law. This boundary, however, presents itself in practical reason as a fact, not a normative judgment. To put it straight: chance is what we cannot control, not what we choose not to control. If we choose not to enhance ourselves, obviously, a choice has been made.

<sup>10</sup> SAVULESCU, Julian; SANDBERG, Anders; HAHANE, Guy. Well-being and Enhancement. 2011. In: Savulescu, Julian, Meulen, Ruud ter; Kahane, Guy (editors). *Enhancing Human Capacities*. Oxford: Willey-Blackwell, 2011, p. 07.

<sup>11</sup> DWORKIN, *op. cit.*, p. 444.

At this point it must be made clear that the democratic principle of equality is a value, not a fact<sup>12</sup>. This implies that a distinction must be made between equality as a value and a concrete situation of substantive equality among persons.

Equality, as a value, is a detached value and shall not be put at risk as such, and can be defined as an equal concern from a political community for the fate of all its members. This equal concern is understood, here, as Dworkin's version of equality of resources, which implies duties and distributive justice measures aiming a concrete situation of equality.

The present dislocation of the boundaries between chance and choice do not render obsolete equality as a detached value, neither deny its centrality in a moral or legal community. The real problem is that it will possibly create a great amount of substantive inequalities considering the fact that enhancements are taken to be positional goods and might further increase the advantages of the rich over the poor.

Accordingly, the question to be made is: considering the consequences for the worse off, should we banish enhancement procedures?

One must observe that the problem, therefore, rests redefined as a problem of balancing derivative values and considering the likely impact of any such decision on individual interests.

In a situation like this, equality of resources demands, first, not trying to improve equality by leveling it down. The remedy for injustice is redistribution, not denial of benefits to some with no corresponding gain to others<sup>13</sup>.

In short, substantive inequalities generated by the use of enhancement procedures are not a plausible objection to the enhancement enterprise, especially if considered that such inequalities are not qualitatively different of inequalities already existing due to social class, educational level, wealth or access to positional goods in general.

More important, the admittance of enhancement drugs in market as such is enough to solve public health and safety issues generated by letting enhancement drugs enter the market through the backdoor.

### **3 INEQUALITY AND UNIVERSAL ACCESS TO COGNITIVE ENHANCEMENT DRUGS: THE CASE FOR COMPULSORY LICENSING**

The strongest objection against enhancement drugs lies, therefore, in problems related to inequality and access to these drugs. Its admittance in market would increase inequalities already existing, like welfare inequalities between the rich and the poor since wealth would be an unfair precondition for privileged access to medicines that increase performance, generating even bigger differences.

---

<sup>12</sup> DWORKIN, *op. cit.*

<sup>13</sup> DWORKIN, *op. cit.*



Inequality, despite not being a reason for banning enhancement drugs, is no doubt an issue of public interest, demanding state intervention in the market. The question is: how would such intervention be justified?<sup>14</sup>

According to Habermas<sup>15</sup>, the relation between private and public autonomy must be understood as dialectical. A basic fundamental principle informs this proposition: no citizen can assume the status of a legal subject unless they are granted subjective private rights. In fact, private and public autonomy mutually presuppose each other, as part of an environment where coercive and positive law develops a central role, firstly, constituting individual legal subjects and, secondly, entitling them to participate in a democratic process of lawmaking.

The idea of dialectical relation between private and public autonomy is based on the Habermasian theory of communicative action. Expanding on this theory, the author elaborates the discourse principle (“just those action norms are valid to which all possibly affected persons could agree as participants in rational discourses”) vis-à-vis the moral principle as a means of expressing the complementary relation between law and morality.

Though here directly referring to law, the discourse principle is intertwined with the moral principle. It seems that law must convey a degree of legitimacy which implies a necessary proximity to moral arguments. Thus, the discourse principle expresses a postconventional morality, for the moral principle is one of, or even the most important, rule of argumentation which operationalizes the former.

Habermas<sup>16</sup> reveals that discourse principle is a counterfactual proposition formulated to analyse the validity of legal norms, whereas the moral principle is used to justify moral norms. However, neither of them can be seen or understood as clearly distinct philosophical concepts applied to separate domains of reality. In fact, whenever trying to find out the validity of a legal norm, for example, a contract, it should be taken for granted that the moral principle establishes substantial grounds for the procedure of lawmaking.

Dworkin’s conception of Law as integrity is derived from a constructive approach in the discourse of appropriateness. Nevertheless, this particular point of view should not be restricted to the solution of hard cases, but must be extended to the procedure of lawmaking in an attempt to fulfill the Habermasian proposal of complementariness between moral principle and discourse principle.

Moreover, according to Dworkin<sup>17</sup>, law as integrity is based on a coherent set of principles about justice, equality, fairness and procedural due process. This reasoning cannot be limited to the application of law in courts. As a matter of fact, lawmaking procedure would require the same set of principles to justify as well as to structure a substantial production of norms.

A radical philosophical scholar may see all of this as a paradoxical argumentation and a theoretical failure. However, the lawmaking procedure implies a dialectical relation of

<sup>14</sup> The following argumentation has already been developed in Feres and Silva - The patent licensing conundrum: a substantial Brazilian legal theory in the Law of Contracts. In: *Ética e Filosofia Política*, n. 11, v. 1, 2008.

<sup>15</sup> In: *The inclusion of the other: studies in political theory*. Edited by Ciaran Cronin and Pablo de Grieff, Cambridge: MIT, 1998.

<sup>16</sup> In: *Between facts and norms: contributions to a discourse theory of law and democracy*. Translated by William Rehg. Cambridge: MIT, 1996.

<sup>17</sup> In: *Law’s empire*. London: Fontana Press, 1991.

application between universal moral principles and the Constitution, as well as the Constitution and the statutes. In this particular case, there is serious concern for the legislature's ability to produce a consistent set of articulate norms contained by the intersection of the Dworkian community of principles and the Habermasian minimum normative content, counterfactually instituted.

In a context of private and public autonomy co-originally constituted, subjective rights and public law interact to form a counterfactual set of principles which conveys a moral argument in the lawmaking process. It seems that a minimum normative content is expressed in terms of private autonomy as well as democratic principle.

The legislature is not free to enact rules without any regard to this normative content. Although enacting rules is a matter of policy, the latter can only be chosen according to a reason of principle. As Dworkin<sup>18</sup> sees it, law as integrity does not apply to the lawmaking process. Nevertheless, an extension of the lawmaking procedure of this theoretical tool enhances the scope of this paper – a substantial legal theory applied to contracts, and justifies Dworkin's argument – the need for a sound policy to enact a rule. In fact, a sound policy is nothing if it is not a policy justified by a moral principle.

Private law making procedure is founded on the private autonomy principle. Property rights and contracts are formulated in accordance with the minimum moral standard established in a counterfactual environment of ultimate private autonomy. In order to conceive the normative content of an agreement, it is not appropriate to disregard reasons of principle while the bearers of rights are elaborating the terms of a certain transaction.

The principle of private autonomy works as a moral standard in the process of establishing the contours of normativity in contracts.

This reveals a significant step towards the justification of lawmaking procedure. It is not a mere formal appreciation, but, instead, a substantial analysis of the production of norms. The dialectical relation between private autonomy and democratic principle requires integrity in the procedure of lawmaking, not only by legislature, but also by administrative power and individuals. Enacting regulations and achieving private agreement must be enlightened by minimum moral content. This does not represent a return to natural rights, but a renovation of proceduralism.

Many readers may be asking what private autonomy means in a context of substantialism in procedure. Indeed, private autonomy conveys relevant moral contents, such as, fairness in exchange, justice in co-operation, procedural due process in evaluating the promise principle. These are the guidelines the legislature has to respect so as to implement contract law. Furthermore, the legislative process in construing the principles of contract law is justified upon a moral argument. At this point, the basis of a contract law is not informed by instrumental rationality but by a community of principles, in spite of the strategic actions of promisee and promisor in forming an obligational bond.

Due to state intervention in contract by legislature, liberal scholars have criticised the fall of freedom of contract. Obviously, this point of view presupposes a negative concept of liberties which are certainly jeopardized by any kind of paternalistic measures. Nevertheless, it is not intended here to revisit or emphasize the collective goals which can eventually justify

---

<sup>18</sup> In: *Law's empire*, *op. cit.*

the restriction of private autonomy. It is not a question of taking sides of either the communitarians or the liberals, it is actually a matter of asserting the legitimacy of public intervention in accordance with a community of principles which, regarding the issue in question, encompasses a value of equality.

This community of principles ought to corroborate the legitimacy of intervention in contracts, taking into account, not only a dialectical relation between public and private autonomy, but also substantial moral contents. Indeed, the principle of autonomy itself is a substantial moral argument, setting the limits for any kind of state intervention. As a matter of fact, private autonomy and state intervention in the context of contract law should be co-originally constituted. It implies a significant conclusion that private agreements are *prima facie* binding<sup>19</sup>, for they should pass a relevant test of appropriateness as far as moral principle is concerned.

In this context, a crucial question will arise: what are the means of legitimizing state intervention? First of all, the principle of private autonomy will demand an intervention whenever the exercise of free will in any private agreement is in danger. Secondly, state intervention in a contract will be borne out if equity in exchange is not adequately balanced. Thirdly, public autonomy or democratic principle supports a policy of intervention which is founded on procedural due process. In this case, the ultimate goal is to protect the cooperation between the parties and the long-term contractual relationship inasmuch as cognitive flaws, fraud, duress, misrepresentation and, of course, vulnerability are recognized as sufficient grounds for reconstituting any private bond through reasonable intervention.

Therefore, the principle of private autonomy, in the context of law as integrity, may require and substantiate legislative or administrative intervention whose purpose is to morally reconstruct the obligational bond among contracting parties (as free individuals). As a result, this specific principle functions as both a procedural tool and a moral argument in favour of a substantial legal theory whose aim is to acknowledge diversity, conflict and plurality in social relations under the due process of a morally integrated normative structure. Finally, the relation between moral principle and law as integrity is not fragmented at all, nonetheless, it demonstrates a substantial ground for justification of lawmaking and court action.

The theoretical background above exposed is able to justify public intervention aiming to reduce inequality of access to enhancement drugs. In fact, compulsory licensing is an intervention mechanism that already is being used to protect the public interest regarding the access to medicines. See, for example, the compulsory licensing of Merck Sharp and Dohme patent rights of the drug Efavirenz in Brazil in the year of 2007.

This was a typical case in which legal or statutory monopoly (patent rights) tends to influence the market negatively. The patentee might abuse property rights by charging excessive prices for its exclusive product. This is why intellectual property rights law should state legal procedure to reverse the probability of abuse of economic power obtained by the patent privilege. In this particular case, the terms of patent licensing contract are legally established so as to reconstruct the obligational bond in conformity with fairness, justice and due process.

The same intervention mechanism can be used in the case of emerging cognitive enhancement drugs if one takes into account a wellfarist definition of enhancement, which

---

<sup>19</sup> ATIYAH, P.S. *Essays on contract*. Oxford: Clarendon Press, 1986.

means “any change in the biology or psychology of a person which increases the chances of leading a good life in the relevant set of circumstances”. This is an account that makes no use of the common distinction between medical treatment and enhancement as the so-called “not-medicine” approach. The focus is on subjective welfare, not in the idea of normal species-functioning.

## ■ CONCLUSIONS

It is clear that informing the bioconservatives objection on the human enhancement enterprise there is a fear of denial of the moral status of person to those “left behind”, therefore threatening our equal moral status, which generated an appeal to the idea of human nature.

Clarifying the idea of equality as a political value detached from an empirical situation of substantive equality among persons can show the fragility or general arguments against an enhancement enterprise or allowing research and development or enhancement drugs and technologies. The dislocation of the boundaries between chance and choice that render the very concept of natural lottery obsolete does not menace equality as a political value.

The admittance of research and development of enhancement drugs will solve the first of the two big problems aforementioned: the risk represented for consumers of such drugs entering the market through the “back door”.

The second big problem is a problem of access to such drugs due to socioeconomic inequalities already existing.

Considering that equality in democratic societies demands that the state should demonstrate equal concern regarding the welfare of all its citizens, restrictions of access to such drugs due to economic conditions is naturally a problem of public interest which authorizes compulsory licensing.

## REFERENCES

ATIYAH, P.S. *Essays on contract*. Oxford: Claredon Press, 1986.

BUCHANAN, Allen. Human Nature and Enhancement. In: *Bioethics*, Oxford, v. 23, i. 03, mar 2008.

\_\_\_\_\_. *Beyond Humanity? – The Ethics of Biomedical Enhancement*. Oxford: Oxford University Press, 2011.

DWORKIN, Ronald. *Sovereign Virtue: the theory and practice of Equality*. Cambridge: Harvard University Press, 2000.

\_\_\_\_\_. *Law's empire*. London: Fontana Press, 1991.

\_\_\_\_\_. *A matter of principle*. Cambridge: Harvard University Press, 1985.

\_\_\_\_\_. *Taking rights seriously*. Cambridge: Harvard University Press, 1977.

FERES, Marcos Vinício Chein; SILVA, Denis Franco. The patent licensing conundrum: a substantial Brazilian legal theory in the Law of Contracts. In: *Ética e Filosofia Política*, n. 11, v. 1, 2008.

FUKUYAMA, Francis. *Our Posthuman Future: Consequences of the Biotechnology Revolution*. New York: Farrar Straus Giroux, 2002.

HABERMAS, Jürgen. *Between facts and norms: contributions to a discourse theory of law and democracy*. Translated by William Rehg. Cambridge: MIT, 1996.

\_\_\_\_\_. *The inclusion of the other: studies in political theory*. Edited by Ciaran Cronin and Pablo de Grieff, Cambridge: MIT, 1998.

KASS, Leon. The wisdom of Repugnance. In: *The human Cloning Debate*, ed. Glen Macgee, 2nd ed., Berkeley, CA: Berkeley Hills Books, 2000.

PARENS, Erik. The Godness of Fragility: On the Prospect of Genetic Technologies Aimed at the Enhancement of Human Capacities. *Kennedy Institute of Ethics Journal* 5(2),141-53, 1995.

RAWLS, John. *A Theory of Justice*. Cambridge: Harvard University Press (Revised Edition), 2000.

RODOTÀ, Stefano. Il corpo e il post umano. In: *Studi in onore di Davide Messinetti*. Napoli: ESI, 2008.

SANDEL, Michael J. The case against perfection. *The Atlantic Monthly* 293(3): 50-62, 2005.

SAVULESCU, Julian; SANDBERG, Anders; HAHANE, Guy. Well-being and Enhancement. 2011. In: Savulescu, Julian, Meulen, Ruud ter; Kahane, Guy (editors). *Enhancing Human Capacities*. Oxford: Willey-Blackwell, 2011.