

IS HUMAN ENHANCEMENT A THREAT TO SOLIDARITY?

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SUMMARY: 1. *Human enhancement and the ideal of Enlightenment.* 2. *The communitarian critique on human enhancement.* 3. *Access to enhancement technologies.* 4. *Distributive justice and solidarity.* 5. *Enhancement, solidarity and mutual recognition.* 6. *Human enhancement and dignity.* 7. *Conclusion.*

IN the ethical literature on human enhancement there is a concern that human enhancement could be a threat to the social ties in our society by increasing competition and creating social divides between the enhanced and non-enhanced. For example, Sandel argues that human enhancement technologies have an inherent tendency to break up social relations and solidarity in society because of their emphasis on the improvement of the abilities of individuals. This emphasis will reinforce the competition with other individuals for important positions and societal goods.¹ Fukuyama is concerned about the impact of enhancement technologies on social justice, arguing that these technologies might create a domination of enhanced individuals over an ‘underclass’ of unenhanced individuals who do not have the resources to access these new technologies.² The basic concern of these, and other, authors, is that the use of enhancement technologies is shifting responsibility for one’s fate from society to the individual, thereby weakening important social values, particularly the responsibility of society for those with less talents and capabilities. Human enhancement is eroding the sense of shared fate, which is a primary motive for to the idea of solidarity and mutual responsibility. According to Habermas³ human enhancement will jeopardize central social values, including the concern for the well-being of the worse-off and the ability of society to advance the common good.⁴

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¹ M. SANDEL, *The Case Against Perfection. Ethics in the Age of Genetic Engineering*, Belknap, Harvard University Press, Cambridge Mass. 2007

² F. FUKUYAMA, *Our Posthuman Future. Consequences of the Biotechnology Revolution*, Profile Books, London 2003.

³ J. HABERMAS, *The Future of Human Nature*, Polity Press, Cambridge 2003.

⁴ O. LEV, *Will biomedical enhancements undermine solidarity, responsibility, equality and autonomy?*, «Bioethics», 25, 4 (2011), pp. 177-184.

In this article, I want to explore these concerns by an analysis of the possible implications of human enhancement on social and moral relations, particularly on social solidarity and the collective responsibility for the vulnerable in our society. I will argue that human enhancement technologies are not necessarily resulting in social fragmentation and diminished social responsibility if they are introduced in a reflective approach which pays attention to individual autonomy and social values at the same time.

1. HUMAN ENHANCEMENT AND THE IDEAL OF ENLIGHTENMENT

In the past decades, there has been an intense ethical debate on the use of medical and biomedical technologies to improve or enhance human functioning in the field of cognition, mood, sports and other areas.⁵ The debate is focused on the question whether the use of medical technology for such enhancement can be justified from a moral point of view and whether health care professionals should contribute to such a practice. One of the voices in this debate comes from liberal and (partly) utilitarian authors who cannot see anything wrong in human enhancement as this has been part of human history: From ‘our first beginnings’ there has been a continuous effort to improve our functioning by education, health care, housing, language, cultivation, cooking, farming and other areas.⁶ These are all ways to improve human life and can all be considered human enhancements. Improving by way of technology is morally superior as it is more efficient and leads to quicker results than waiting for evolutionary or cultural processes to reach a better level of functioning. Apart from the added value of better memories, better experiences and better processing and assimilating our experiences, we will be less the slaves to illness, pain, disability and premature death, and less dependent on doctors and medical science.

However, there is a difference between enhancement by way of cultural and evolutionary processes as compared to enhancement using biomedical technology, because the latter represents a different methodology.⁷ According to Buchanan, an enhancement is an “intervention... that improves some capacity (or characteristic) that normal beings ordinarily have or, more radically, that produces a new one”.⁸ This is also the view of the Science and Technol-

⁵ E. PARENS (ed.), *Enhancing Human Traits. Ethical and Legal Implications*, Washington: Georgetown University Press, 1998; J. SAVULESCU, R. TER MEULEN, G. KAHANE (eds), *Enhancing Human Capacities*, Wiley-Blackwell Publishers, Oxford 2011.

⁶ J. HARRIS, *Enhancing Evolution*, Princeton University Press, Princeton 2007.

⁷ M. SCHERMER, *Van genezen naar verbeteren. Inaugural lecture*, Erasmus Medical Centre, Rotterdam 2012.

⁸ A. BUCHANAN, *Better than human. The promise and perils of enhancing ourselves*, Oxford University Press, Oxford 2011, p. 5.

ogy Office of the European Parliament: “an enhancement is a modification aimed at improving individual human performance and brought about by science-based or technology-based interventions in the human body”.⁹ From this perspective, human enhancement is indeed something mankind has been trying to do for a long time, but not ‘from its beginnings’: it reflects the ideals of the Enlightenment which started in the 18th century with its utopian perspective of improving the world and ameliorating human suffering using science and technology.¹⁰

Though the science and technology have resulted in enormous improvements in human life, the utopian and rationalist perspective of the Enlightenment has also been criticised. Representatives of the Critical Theory of the Frankfurter Schule, like Max Horkheimer and Theodor Adorno, argued that the Enlightenment has resulted in a domination of our lives by technology and in an impoverishment of human relationships.¹¹ At an earlier occasion, the sociologist Max Weber had developed the theory that the rationalisation of human life would result in an impoverishment of human and social life. According to Weber our social life is increasingly dominated by the laws of *instrumental reason*, which means the emphasis on calculation, prediction, effectiveness, bureaucracy and control as the basic principles of social life.¹² Instrumental reason has resulted in a greater control and improvement of our economic and social circumstances. However, it has also resulted in a disappearing of the sense of meaning in our natural and social world (*Entzauberung der Welt*). We are deprived of the capacities to experience meaning in the world, but also to share moral values with each other. Weber called this process the ‘iron cage of technology’. There is an inherent tendency in technology to dominate and control our lives and to fragmentise and de-humanise society.

There is a concern among some authors that human enhancement may hinder the development of individuals to develop their own set of values and to enter meaningful social relationships. Fukuyama for example argues that the reduction of human qualities for utilitarian purposes will affect our dignity, which he defines as a range of human qualities and abilities that connect us to other human beings.¹³ The question is whether human enhancement technologies are inevitably contributing to this process of dehumanization and fragmenting society by controlling and rationalizing individual lives. Will

⁹ STOA Science and Technology Options Assessment European Parliament, *Human Enhancement*, European Parliament, Brussels 2009, p. 13.

¹⁰ F. JOTTERAND, *At the Roots of Transhumanism: From the Enlightenment to a Post-Human Future*, «The Journal of Medicine and Philosophy», 35 (2010), pp. 617-621.

¹¹ M. HORKHEIMER & T. ADORNO, *Dialektik der Aufklärung*, Fischer, Frankfurt a.M. 1969.

¹² M. WEBER, *Economics and Society: An Outline of Interpretive Sociology*, University of California Press, Berkeley 1978.

¹³ F. FUKUYAMA, o.c.

the introduction of human enhancement technologies indeed lead to a diminishment of the *solidarity* in our society, meaning the willingness of individuals to cooperate with others in meaningful practices to take care of the needs of others, and generally to respect the humanity of all members of human society?

2. THE COMMUNITARIAN CRITIQUE ON HUMAN ENHANCEMENT

The concern about the impact of enhancement on human relationships is particularly put forward by communitarian philosophers who argue that human enhancement technologies are focusing on the development of individual capacities. Their concern is that this development will go at the expense of the flourishing of social relationships which are an important source for the development of personal identity. Human enhancement reinforces the individualisation of society by promoting the idea that individuals can become masters of their own fate by using technologies to improve their cognitive, intellectual or physical functioning. When this idea is presented as a moral obligation¹⁴ or responsibility, it will lead to the destruction of social relations and communities as the places where individual come together and develop their personalities and mutual support.

An important representative of this communitarian critique on human enhancement is Sandel. In his book *The Case against Perfection* Sandel argues that because of the idea of human enhancement, we have become *too* responsible for our own fate. “Parents have become responsible for choosing, or failing to choose, the right traits for their children. Athletes become responsible for acquiring, or failing to acquire, the talents that will help their team win”.¹⁵ This ‘explosion of responsibility’ has come to the expense of an attitude of acceptance of our limitations and of the notion of ‘giftedness’. Sandel argues that there is a connection between the notions of ‘giftedness’ and ‘solidarity’: as soon as we are aware of the contingency of our gifts, “to replace chance with choice, the gifted character of human powers will recede, and with it, perhaps, our capacity to see ourselves as sharing a common fate”.¹⁶ Instead of the feeling of solidarity, which is based on the feeling of a common fate, the use of enhancement technologies will shift responsibility for one’s fate from society to the individual, thereby weakening important social values, particularly the responsibility of society for those with less talents and capabilities.¹⁷

According to Sandel, bio-engineering our children and ourselves is chang-

¹⁴ The idea of enhancement as a moral obligation has been proposed by Harris in his book *Enhancing Evolution* (2007).

¹⁵ M. SANDEL, *The Case Against Perfection. Ethics in the Age of Genetic Engineering*, Belknap, Harvard University Press, Cambridge Mass 2007, p. 87.

¹⁶ *Ibidem*, p. 90.

¹⁷ *Ibidem*, p. 89.

ing our nature to fit the world, “rather than the other way around, is actually the deepest form of disempowerment. It distracts us from reflecting critically on the world, and deadens the impulse to social and political improvement”.¹⁸ This communitarian concern can also be heard in the report *Beyond Therapy* of the President’s Council on Bioethics,¹⁹ for example where it is criticizing so-called ‘mood enhancement’, meaning the use of medical drugs to feel better, even though one is not suffering from (diagnosed) mental illness. Individuals taking such medication (like Prozac) want to feel ‘better than well’ as Carl Elliott called it.²⁰ The Council argued that due to the wide availability of mood-brightening drugs individuals become so preoccupied with their state of mind “that they remove themselves increasingly from active participation in civic life, discarding those attachments without which they cannot achieve the happiness they seek and without which the community cannot survive and flourish”.²¹

The critique of human enhancement is another expression of a general concern by some communitarian authors about the individualisation of society. This sociological term means to describe the dissolution of traditional bonds and communities which in the past tied people together. It is a process that has been going on for several centuries and has, in modern times, resulted in a disembodiment of the individual as well as instability and changeability of social and personal relations.²² In this process, traditional norms and knowledge have become less certain and have lost their status as beacons to guide individuals through institutions and the life cycle.²³ Individuals have become the organizers and agents of their own life, but without the guidance by traditional norms and institutions. The individualization of society puts an increased emphasis on the values of individuality, cultural difference and autonomy which seems at odds with the idea of solidarity and its support for the common good and the responsibility for the needs of others.²⁴

¹⁸ *Ibidem*, p. 97.

¹⁹ President’s Council on Bioethics, *Beyond Therapy – Biotechnology and the Pursuit of Happiness, a Report of the President’s Council on Bioethics*, U.S. Government Office, Washington DC 2003. Available: www.bioethics.gov

²⁰ C. ELLIOTT, *Better than Well. American Medicine Meets the American Dream*, Norton & Company, New York & London 2003.

²¹ President’s Council on Bioethics, o.c., p. 206.

²² R. TER MEULEN, W. ARTS, R., MUFFELS, *Solidarity, health and social care in Europe. Introduction to the volume*, in R. TER MEULEN, W. ARTS, R. MUFFELS (eds.), *Solidarity in Health and Social Care in Europe, Series Philosophy & Medicine Vol. 69*, Kluwer Academic Publishers, Dordrecht 2001, pp. 1-11.

²³ A. GIDDENS, *Modernity and Self-Identity. Self and Society in the Late Modern Age*, Polity Press, Cambridge 1991.

²⁴ P. TAYLOR-GOOPY, *Does risk society erode welfare state solidarity?*, «Policy & Politics», 39, 2 (2011), pp. 147-161.

Many communitarian authors complain the loss of social ties and communities which they regard as a morally doubtful process. They argue that the individualization of society has led to an anonymization of social life, a narcissistic occupation with the self and lack of social or political commitment.²⁵ An example is the critique on human enhancement of the President's Council on Bioethics mentioned above. Communitarian thinkers in general advocate solidarity as an important context for the development of identities and personal autonomy.²⁶ They argue that the self is constituted by social values and ends: we can only discover who we are, not by the choices we make or have made, but by reflecting on the goals and ends of the communities which we are part of. Their concern about human enhancement with its strong emphasis on individual improvement using biotechnologies, will go at the expense of participating in social and communal life which is an important condition for personal fulfilment and the support of those who are vulnerable or not able to participate in society.

However, it can be questioned whether individualisation, and human enhancement, will inevitably result in an impoverishment of individual and communal life. Though many individuals in modern society may struggle with social alienation or indulge in private, consumerist withdrawal from social life, individualisation is not necessarily leading to wrongful and doubtful consequences. Individualization can lead to social and political commitments based on personal and autonomous choice instead of the impersonal and obligatory character of such commitments in the past. It can have a positive connotation of personal development, self-realization and emancipation of traditional social ties of religion, small communities, family and class. Sandel criticises human enhancement as it reinforces the idea of personal responsibility instead of solidarity based on a shared fate or sense of luck. However, a greater emphasis on personal responsibility (which in his view will result from human enhancement) can still go together with and even contribute to an 'ethics of commitment' towards the weak and vulnerable in our modern society and at a global level.²⁷

3. ACCESS TO ENHANCEMENT TECHNOLOGIES

One of the concerns in the ethical literature about human enhancement technologies is that there will arise differences in access to these technologies and

²⁵ See for example R.H. BELLAH, R. MADSEN, W.M. SULLIVAN, A. SWIDLER & S.M. TIP-TON, *Habits of the heart. Individualism and Commitment in American life*, Harper and Row, New York 1985.

²⁶ W. KYMLICKA, *Contemporary Political Philosophy. An Introduction*, 2nd Ed. Oxford University Press, Oxford 2002.

²⁷ R. TER MEULEN, W. ARTS & R. MUFFELS, O.C.

that, because of a diminishing of solidarity, there will be a divide between enhanced and non-enhanced classes within our society.²⁸ An important ethical question is whether the well-off groups in society should make a (financial) contribution to the costs of the enhancement of disadvantaged groups.

The ethical debate about access to enhancement technologies, and the responsibility of society or the state in this context, has been guided by a discussion whether there is a difference between human enhancement and medical treatment. It is a deep understanding that as a society we have an obligation to help persons who need medical treatment. Within this perspective we find it hard to accept that societal resources are spent on technologies that are only fulfilling individual preferences, for example to lead a happier life or to enhance physical performance in sport, instead of fulfilling a need for medical treatment because of serious illness or disease.

However, for treatments to be funded, most health care systems in the world have as condition that they should fall within the medical domain. This is a necessary, but not a sufficient condition. There are medical treatments, like advanced cancer drugs or transplantations, which may very well be considered as medical treatments, but may be so expensive that society cannot afford to pay these treatments for those who are in need. It is generally recognized that the goals of medicine, that characterizes the medical domain, include the preservation and restoration of health by the fight against disease. However, it is less clear how to define health and disease.

One approach to distinguish between health and disease is the concept of 'normal functioning'. However, there is no consensus what constitutes 'normal functioning': does that mean strictly biological functioning²⁹ or should one also take psychological and social aspects into account? According to Daniels³⁰ normal functioning is a condition to have access to the range of opportunities that are open to individuals in society according to their abilities. Disease hinders normal functioning, reason why there is a moral obligation of society to restore individuals with disease to normal functioning. Daniels argues that protecting normal functioning contributes to protecting normal opportunities. By keeping close to normal functioning, health care preserves for people the ability to participate in political, social and economic life. Based on Daniels concept of justice in health care, Buchanan et al argue that there is no moral obligation of society to fund enhancement technologies as they are not focused on the restoration of 'normal functioning'. In their view the distinction between enhancement and therapy is relevant as the basis for deci-

²⁸ F. FUKUYAMA, o.c.

²⁹ C. BOORSE, *Health as a theoretical concept*, «Philosophy of Science», 44, 4 (1977), pp. 542-573.

³⁰ N. DANIELS, *Just Health Care*, Cambridge University Press, Cambridge 1985.

sion-making about the kind of medical and biotechnical services that should be supplied by society.³¹

This view is challenged by egalitarian authors like Sen³² who argue that in the approach of Daniels and Buchanan there still exist differences between individuals in their possession of capabilities in society, which might hinder some of them in reaching good positions in society. For example, intelligence and good memory might be essential for success in the competition for social positions. The application of enhancement technologies might result in a more even distribution of these capabilities between individuals which would be more just from an egalitarian point of view. Egalitarian theories are committed to the thesis that justice may require interventions to counteract natural inequalities by means of biotechnological interventions, whether they constitute diseases or not. In fact, they advocate that there is an obligation within our society to supply enhancement technologies, not just treatments, whenever a natural inequality can be prevented by enhancement.

There are some findings in cognitive science which could support the arguments of egalitarian authors. One of the type of drugs which receive much attention as potential 'enhancers' are drugs used for the treatment of attention deficit hyperactivity disorders (ADHD). These drugs are reported to increase cognitive functioning in healthy human beings, including attention, long-term memory, executive functions, and working memory. However, an interesting effect of these drugs is the co-called 'base-line dependent effect' or 'ceiling effect', meaning that they may improve the functioning of individuals with lower cognitive capacities, but have no positive impact on the cognitive capacities of individuals performing at the higher end of cognitive functioning.³³

One could argue that this empirical finding supports the ethical argument by egalitarian authors to supply cognitive enhancing drugs to individuals with lower cognitive capacities as they might create a 'level playing field' in the competition for societal positions and goods. Buchanan et al argue that in this way the distinction between enhancement and therapy is disappearing. They agree that in a market-oriented society, it can be expected that genetic technologies and other biotechnologies will be used by the rich and powerful beyond the medical domain, to enhance their capacities and opportunities in social life. They recognize that from the viewpoint of justice regulations may

³¹ A. BUCHANAN, D. BROCK, N. DANIELS, D. WIKLER, *From Chance to Choice. Genetics and Justice*, Cambridge University Press, New York 2000.

³² A. SEN, *Justice: means versus freedoms*, «Philosophy and Public Affairs», 19 (1990), pp. 111-121.

³³ R. DE JONG, *Overclocking the brain? The potential and limitations of cognition-enhancing drugs*, in R. TER MEULEN, A. MOHAMMED, W. HALL (eds.), *Rethinking Cognitive Enhancement*, Oxford University Press, Oxford 2017, pp. 37-56.

well be in place to prevent a widening gap between the better-off and the worse-off in respect with social opportunities. However, that is no reason to equalize the differences in capacities by funding the access to enhancement technologies for all members of our society. Such a policy would seriously affect the liberty and the possibility of competition in our society.³⁴ They do not say that these technologies should not be made available, but that they should be regulated within a broader social context than health care (which should limit itself to restoring normal functioning).

4. DISTRIBUTIVE JUSTICE AND SOLIDARITY

In medical ethics, the obligations of society in regard with the access to medical treatments is generally analysed by way of the concept of distributive justice, which says that there should be a reasonable distribution of the benefits and the (financial) burdens of medical treatments between the individuals. The most influential theory in this regard is the liberal (or liberal-egalitarian) theory of justice developed by John Rawls in his book *A Theory of Justice*. The theory of justice of Rawls is based on a model of social justice, in which autonomous individuals negotiate their interests, resulting in a social contract about the distribution of services and goods in society.

Rawls proposed two principles of justice to evaluate the distribution of social and economic advantages in a society. According to Rawls these principles would be accepted by individuals when they would deliberate about a just distribution behind a 'veil of ignorance' that is without knowing their own particular circumstances or social position. The First Principle of Justice is that «each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others». The Second Principle is that «social and economic inequalities are to be arranged so that they are both a) reasonably expected to be to one's advantage, and b) attached to positions and offices open to all».³⁵

Though Rawls' theory has the intention to benefit all members of our society, and particularly those who are most disadvantaged, liberal theories of justice are accused to lack commonality and solidarity. They cannot avoid to display a certain 'coldness' and humiliation particularly in the institutional procedures and patterns of distribution.³⁶ Margalit criticized the theory of Rawls, because it would in his view lead to humiliating procedures and insti-

³⁴ BUCHANAN ET AL., O.C.

³⁵ J. RAWLS, *A Theory of Justice*, 11th Ed., Oxford University Press, Oxford 1989, p. 60.

³⁶ R. HOUTEPEN & R. TER MEULEN, *The Expectations of Solidarity: Matters of Justice, Responsibility and Identity in the Reconstruction of the Health Care System*, «Health Care Analysis», 8 (2000), pp. 355–379.

tutions, diminishing the self-respect of individuals.³⁷ He argued that a society should be *decent*, meaning it should not humiliate its members by denying them to develop self-respect. To evaluate whether a just society is also a decent society, it is important to make a distinction between the *pattern* of distribution and the *procedure* to obtain the just distribution. The distribution may be just and efficient, but in practice it may become very calculating about what is just, instead of being humane and gentle. Rawls argued for distribution of resources and for a society in which people feel themselves valued and have a sense that their life plans are worthy of realization as well as the confidence to be able to carry out these plans. However, though Rawls tried to improve the situation of the most disadvantaged groups in society, he cannot avoid that, in practice, the just society may be an indecent society in the way how goods are distributed to needy individuals.³⁸

This concern about humiliation and denial of respect is relevant when human enhancement technologies are introduced in our societies. The efforts to improve cognitive and intellectual functioning by biotechnological means may lead to increasing inequalities in our society and attitude of disrespect towards individuals who might not be able to enhance their cognitive and intellectual capacities. Fukuyama is worried genetic enhancement which could lead to the emergence of new genetic classes and to increased inequality in our society. Fukuyama thinks that genetic enhancement may lead to a more egalitarian society, particularly when access to these technologies is funded for everybody, like some egalitarian authors argue. However, there is also a danger that it will increase social divisions and divide our society in different genetic classes. Genetic enhancement will 'not be a threat to the dignity of normal adult human beings but rather to those we have defined as characterizing human specificity. The largest group of beings in this category are the unborn, but it could also include infants, the terminally sick, elderly people with debilitating diseases, and the disabled'.³⁹ Genetic enhancements will put increasing emphasis on intelligence, cognitive capacities and sensitive emotions as defining for dignity and humanity. Humans that do not have these (enhanced) capacities will be inferior and as possessing less human rights.

The arguments of Buchanan and Daniels are strongly influenced by Rawls' liberal theory of justice, particularly in regard with their views on access to enhancement technologies and the respect of the principle for liberty. However, it will be important that efforts to introduce human enhancement technologies are not just guided by principles of liberal justice, but also by concerns about dignity and humanity, in other words by an approach based on *humani-*

³⁷ A. MARGALIT, *The Decent Society*, Harvard University Press, Cambridge MA 1996.

³⁸ R. TER MEULEN, *Solidarity and Justice in Health and Social Care*, Cambridge University Press, Cambridge 2017 (in press).

³⁹ F. FUKUYAMA, o.c., p. 174.

tarian solidarity.⁴⁰ This is a solidarity based on identification with the values of humanity and responsibility for the other. Humanitarian solidarity is based on the personhood of the other whose existence is threatened by circumstances beyond their control. It leads to the decision to take part in the existence of the other and to protect and take over the care of the other when he or she is not able to take care of him or herself anymore.⁴¹ Humanitarian solidarity is a value that goes beyond the self-interest and the indifference which are typical for a society which is based on liberal rights only. Humanitarian solidarity is a commitment to include all members of society as human being whose humanity and dignity must be protected and respected against efforts of others to enhance their own capacities and to introduce different levels of dignity and humanity, or post-humanity, as some philosophers are suggesting.⁴²

5. ENHANCEMENT, SOLIDARITY AND MUTUAL RECOGNITION

The idea of solidarity is not only referring to the responsibility of society towards the protection of its vulnerable members, but also to a responsibility and commitment to support at the level of personal relations between individuals.⁴³ This relational commitment between individuals is often said to be ignored by liberal theories.⁴⁴ Liberal (and libertarian) discourses tend to define issues of justice as the result of negotiations between rational individuals who share no element of commonality and mutuality. In the liberal tradition, justice is interpreted as a matter of universal duties between indi-

⁴⁰ R. TER MEULEN, *Limiting solidarity in the Netherlands: a two-tier system on the way*, «Journal of Medicine and Philosophy», 20 (1995), pp. 637-646; R. TER MEULEN, *How 'decent' is a decent minimum of healthcare?*, «Journal of Medicine and Philosophy», 36 (2011), pp. 612-623.; R. TER MEULEN, *Solidarity and Justice in Health Care. A Critical Analysis of their Relationship*, «Diametros», 43 (2015), pp. 1-20. Available at: <http://www.diametros.iphils.uj.edu.pl/index.php/diametros/issue/view/45>; R. TER MEULEN, *Solidarity and Justice in Health and Social Care*, cit.

⁴¹ G. VAN DER WAL, *Solidair, hoe en waarom? Over de betekenis van solidariteit bij de bekostiging van de gezondheidszorg*, in F. JACOBS & G. VAN DER WAL (eds), *Medische schaarste en het menselijk tekort*, Reeks Gezondheidsethiek No. 3. Ambo, Baarn 1988, pp. 79-111.

⁴² See for example the position taken by N. Bostrom in N. BOSTROM, *In defense of post-human dignity*, «Bioethics», 19 (2005), pp. 202-214; N. BOSTROM, *Dignity and Enhancement*, in *President's Council on Bioethics, Human Dignity and Bioethics. Essays Commissioned by the President's Council on Bioethics*, Washington D.C. 2008, pp. 173-206. For critique on Bostrom's position, see F. JOTTERAND, *At the Roots of Transhumanism: From the Enlightenment to a Post-Human Future*, «Journal of Medicine and Philosophy», 35 (2010), pp. 617-621 and R. TER MEULEN, *Dignity, Posthumanism and the Community of Values. Answer to Fabrice Jotterand and Nick Bostrom*, «American Journal of Bioethics», 10 (2010), pp. 69-70.

⁴³ R. TER MEULEN, *Solidarity and Justice in Health and Social Care*, cit.

⁴⁴ R. TER MEULEN & R. HOUTEPEN, *Solidarity*, in R. CHADWICK (ed.), *Encyclopaedia of Applied Ethics*, Elsevier, Amsterdam 2012, pp. 198-205.

viduals which can be justified based on rational deliberations in the original position.⁴⁵

Instead of rational calculation, the support of others can also be understood because such a support and commitment is an important value *in itself*, not because we have an interest to do so. The concept of solidarity expresses this commitment to the other: he or she deserves our support due to circumstances out of their control. Solidarity may be based on common interest, a common fate or 'shared luck'. However, as Jaeggi argues, it can also express a deeper relational commitment towards the other that is different than or goes beyond simple self-interest or strategic cooperation.⁴⁶ According to Honneth, solidarity is the experience of recognition of one-self as a person with an identity in the intersubjective context of mutual recognition. Solidarity is an essential part of the 'ethical life' (Hegel) and is a necessary precondition for individual self-esteem.⁴⁷

Habermas argues that because of its relational aspect solidarity is a distinctive concept in relation to justice. Habermas argues that liberal justice is not wrong, but *one-sided*. Its foundation in the calculations of autonomous individuals obscures the importance of an inter-subjective life-form that supports individual autonomy by keeping up relations of mutual recognition.⁴⁸ Habermas sees justice and solidarity as 'two sides of a coin': justice concerns the rights and liberties of autonomous, self-interested individuals, whereas solidarity concerns the mutual recognition and wellbeing of the members who are connected in the life world.⁴⁹

According to Habermas, enhancement technologies may have an impact on the relations of recognition and responsibility between individuals. Habermas develops this argument as part of his critique towards the use of pre-implantation diagnosis for genetic human enhancement.⁵⁰ The selection of an embryo by the parents because of some desirable genetic characteristic is an instrumentalization of the creation of human life and an intention to master the contingency (or 'giftedness' in Sandel's words) of human nature by a 'Third Party'.⁵¹ Such an intergenerational control is a serious breach into the self-un-

⁴⁵ R. VERBURG & R. TER MEULEN, *Solidariteit of rechtvaardigheid in de zorg? Een spanningsveld*, «Sociale Wetenschappen», 48 (1/2) (2005), pp. 11–30.

⁴⁶ R. JAEGGI, *Solidarity and Indifference*, in R. TER MEULEN, W. ARTS, R. MUFFELS (eds.), *Solidarity in Health and Social Care in Europe*, «Series Philosophy & Medicine», vol. 69, Kluwer Academic Publishers, Dordrecht 2001, pp. 287–308.

⁴⁷ A. HONNETH, *The Struggle for Recognition. The Moral Grammar of Social Conflicts*, Polity Press, Cambridge 1995.

⁴⁸ J. HABERMAS, *De nieuwe onoverzichtelijkheid en andere opstellen*, Boom, Meppel 1989.

⁴⁹ *Ibidem*, p. 101.

⁵⁰ J. HABERMAS, *The Future of Human Nature*, Polity Press, Cambridge 2003.

⁵¹ *Ibidem*, p. 30.

derstanding of the individual that has come to life by way of this procedure: “For as soon as adults treat the desirable genetic traits of their descendants as a product they can shape according to a design of their own liking, they are exercising a kind of control over their genetically manipulated offspring that intervenes in the somatic bases of another person’s spontaneous relation-to-self and ethical freedom. This kind of intervention should only be exercised over things, not persons”.⁵²

The ‘irreversible decision’ by the parents to manipulate the genetic constitution represents a deep intervention in the relationship between parents and children in which the “fundamental symmetry of responsibility that exists among free and equal persons is restricted”.⁵³ Genetic manipulation with the purpose of human enhancement ‘limits the possibility of a self-critical appropriation of one’s own developmental history’ as this is no longer available for the genetically manipulated dispositions.⁵⁴ Human enhancement by way of genetic technologies has an irreversible impact on the lifeworld as it precludes a “symmetrical relationship between the programmer and the product ‘thus designed’”.⁵⁵ The social dependence of the off spring which is ‘established by ascription’ and thus irreversible, “is foreign to the reciprocal and symmetrical relations of mutual recognition proper to an amoral and legal community of free and equal persons”.⁵⁶

Habermas’ analysis of the impact of genetic technologies on the interpersonal relation between parents and off-spring is an example of how human enhancement technologies may change the relations of recognition and mutuality that are typical for solidarity in the life -world. Human enhancement technologies have the purpose to improve the natural disposition (or ‘giftedness’) of individuals and their off spring. This may lead to greater control over their natural surroundings, but they may also have an impact on the relations of solidarity and recognition in the life world. Technologies may support and improve social interactions, but they can also dominate the relations between individuals because of their tendency of rationalisation and prediction as Weber argued.

6. HUMAN ENHANCEMENT AND DIGNITY

According to Habermas, human enhancement may hinder the development of individuals into moral agents who are capable to develop their own set of values and to enter into meaningful relationships with their parents as producers of their genetic identity. Though he developed this argument in the context of parental decisions to manipulate their off spring, one can argue that

⁵² *Ibidem*, p. 13.

⁵³ *Ibidem*, p. 14.

⁵⁴ *Ibidem*.

⁵⁵ *Ibidem*, p. 65.

⁵⁶ *Ibidem*.

there is an inherent risk of enhancement to control and dominate people's lives replacing individual agency and responsibility by a dependency on drugs and technologies to enhance one's capacities.

This development has important consequences for the respect of the *dignity* of other persons. According to Taylor, dignity is nowadays strongly connected with social recognition and definition of identities.⁵⁷ In modern times identities are not socially derived from a pre-existing order as was the case in the previous *ancien régime*. Identity in modern times is generated and socially recognised in a process of dialogue and negotiation. Dignity in modern society means that one's identity is recognised by significant others, including the differences one has developed compared to other individuals. This policy of recognition means also that every individual, no matter how different its identity, is treated with equal value.

Modern accounts of dignity acknowledge the connection between dignity and equality, but they ignore generally the moral background we need for doing so. To arrive at a mutual recognition of the equal value of different identities, requires that we share some standards of value on which the identities concerned check out as equal. Recognizing individuality and dignity requires more than fair and equal treatment of individuals for example in liberal concepts of justice: it requires a joint project in which individuals express and rank their values in a shared 'horizon of significance' to recognize difference, equality and dignity.

In a similar way, Honneth argues for a symbolic articulation at a societal level of a "framework for orientation", in which "those ethical values and goals are articulated that, taken together, comprise the cultural self-understanding of a society".⁵⁸ This framework can serve as a 'system of reference' for the appraisal of individual personality features, because their social value is measured by the degree to which they appear to be able to contribute to the realization of societal goods.⁵⁹ According to Honneth the cultural self-understanding of a society provides the criteria for the social esteem of persons, because their abilities and achievements are judged intersubjectively according to the degree they help to realize culturally defined values.

There is no reason why the use of technology or enhancement-technology should obstruct the recognition of dignity. For example, technological devices like electronic wheel chairs, man-computer interaction tools, and hearing and visual aids, are enabling people with disabilities to participate in society and to be recognised as persons with dignity. Technology can help to promote individuality and to establish a human community with meaningful social relationships. Enhancement technologies need not necessarily result in a loss

⁵⁷ Ch. TAYLOR, *The Ethics of Authenticity*, Harvard University Press, Cambridge MA 1991, pp. 46-47.

⁵⁸ A. HONNETH, o.c., p. 122.

⁵⁹ *Ibidem*.

of dignity and respect for others' identities, but can open individuals and can improve social relationships.

It will be important to examine how the introduction of enhancement technologies might affect fundamental values like solidarity, dignity and responsibility. The introduction and use of enhancement technologies should be guided by a shared understanding against the background of such values, understood as a 'system of reference' (Honneth) or a 'horizon of meaning' (Taylor). When we introduce human enhancement in such a *reflective* way, they may even lead to an increase in solidarity. I do not mean the conventional type of solidarity promoted by some of the communitarian philosophers discussed above. The communitarian approach is often criticised because it is alleged to restrict the development of individual's autonomy and identity.⁶⁰ Conventional notions of solidarity seem to ignore the need for autonomous choice by individuals and for expression and recognition of their individualities. They restrict the range of individual differences and the expression of different identities to maintain the unity of the group.⁶¹

Solidarity in the sense of mutual recognition against the background of a 'system of reference' is not an *exclusive* solidarity of the group or class ('us' against 'them'). According to Dean, solidarity should be understood as based on a communicative practice in which individuals create a 'we' in a *reflective* process, in which identities are affirmed and recognized as different ways to meet those expectations.⁶² Solidarity can never be viewed as fixed or as given: achieving solidarity means that we open the membership of a group or community to dialogue and communicative reflection on social expectations. By reflecting on shared values, solidarity can become an *inclusive* solidarity which promotes self-esteem by way of solidarity and self-respect.⁶³ Dean calls this 'reflective solidarity', meaning a solidarity which strengthens social ties by a reflection on social expectations and recognition of personal identity.

7. CONCLUSION

Human enhancement technologies, and technology in general, could replace human attributes and could promote standardization, destroying what is unique in everyone. An enhanced human being is at risk to be so much controlled by technological devices that this being becomes stripped of any individuality and the capacity to develop meaningful relationships with others. However, such a de-individualisation is not a necessary consequence of applying technology, not even of enhancement technologies. As long we try to integrate technology in a reflective process, meaning against the background

⁶⁰ R. TER MEULEN, *Solidarity and Justice*, cit.

⁶¹ R. BELLAH ET AL., O.C.

⁶² J. DEAN, *Solidarity of strangers: Feminism after identity politics*, University of California Press, Berkeley 1996.

⁶³ A. HONNETH, O.C.

of a 'horizon of values' or a 'system of reference', it may help to promote dialogue and respect.

Enhanced human beings should be able to connect with other human beings and should be able to integrate technology in their own narrative understanding of themselves. They also should be able to develop human relationships which are essential for the recognition of their individuality and dignity as well as a commitment to support those who are at risk to be left behind. Enhancement technologies do not inevitably lead to a diminishing of solidarity as an important principle for human recognition and social support, but may help to realise such values if introduced in a reflective way.

ABSTRACT: In this article, I analyse the possible impact of human enhancement on social and moral relations, particularly the alleged threat on social solidarity and collective responsibility for vulnerable individuals in our society. The article starts with a short philosophical reflection on human enhancement technologies, followed by an analysis of the communitarian critique of human enhancement as a threat to solidarity. It continues with a discussion of the access to human enhancement technologies and the impact on disadvantaged groups seen from the perspective of distributive justice as well as from the idea of humanitarian solidarity. An important part of the article discusses the idea of solidarity as a concept that expresses the relation of responsibility and recognition of identities and the impact human enhancement may have on this relation. Finally, I will introduce the concept of 'reflective solidarity' which argues that individualisation and solidarity do not oppose each other as claimed by communitarian authors. In the conclusion, I will argue that human enhancement technologies are not necessarily resulting in social fragmentation and diminished social responsibility if they are introduced in a reflective approach which pays attention to individual autonomy and social values at the same time.

KEYWORDS: Human enhancement, ethics, justice, solidarity, reflective solidarity, recognition of the other.