

The artificial and the natural in the bioethical discussion

Artificialidad y naturalidad en la discusión bioética

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<https://doi.org/10.36105/mye.2020v31n2.03>

Abstract

The problem of the correct way of using the artificial has been presented several times in bioethics debates and has often had to face a principle that has always been considered fundamental in ethics and adopted as a criterion to assess the moral rectitude of actions. human, that is, the fact of being in conformity with nature. According to this approach, the artificial is potentially bad, while the natural is always good. The tension between these two poles is found, for example, in the debates about medically assisted procreation but it also emerges in discussions about environmental ethics, of roboethics, or in debates about transhumanism. The purpose of this article is not limited to trying to mitigate the conflict between the natural and the artificial, but it is intended to affirm that the artificial is a legitimate part of the natural as it is a specific expression of human nature. As an example of the application of this thesis, the issue of medically assisted procreation is discussed, demonstrating that the elimination of the objection of artificia-

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Reception: November 22, 2019. Acceptance: January 12, 2020.

lity does not solve other bioethical problems in this field, but it does analyze them more clearly. Aspects such as «supernumerary embryos» or those related to the legitimacy of using them in a «heterologous» context, are certainly not insignificant and very often have come to attract the attention of academics; however, they refer rather to the «conditions» or «consequences» of the use of medically assisted reproduction techniques and such ethical dilemmas seem to occupy a subordinate position with respect to the «preliminary» problem that we propose to analyze. It is clear that, if the artificial would intrinsically damage the moral legitimacy of the aforementioned practices, it would not be enough to redeem them considering their conditions or consequences.

Keywords: technology and ethics, bioethics of reproduction, sexuality and reproduction, medically assisted reproduction, human nature.

Introduction

In the bioethical debate, the natural/artificial dichotomy is periodically resumed, which often assumes the characteristics of an opposition from an ethical point of view, that is to say that the natural must be considered intrinsically «good» and the artificial seems to have a «bad» essence. the most redeemable to the extent that it can be seen as a «help» to nature. This contraposition has been extended even within the current mentality, especially given the fears that the indiscriminate proliferation of artificial products in all sectors of society has influenced people. It is very easy to discover that anti-scientific and anti-technological attitude that today is widespread and is based mainly on a fear towards the development of techno-science that now seems almost out of control and that, following an internal logic, casts a threatening shadow on the future of future generations and even on the survival of humanity itself. The attempt to contrast this mentality has

led some authors to deal with the ethics of non-human agents, with an excess perhaps extending the notion of morality itself (1).

We certainly do not intend to address this wide range of issues in their entirety. Therefore, we will analyze the problem from its root, that is, omitting the moral cataloging that frames the natural in the sphere of the ethically positive and the artificial in that of the negative.

This position can be summarized by stating that in both areas there are good things and lesser good things or, if preferred, positive and negative aspects that must be sought beyond the reasons of moral judgment about the actions in which these two spheres enter in contact. However, the purpose of this article is more radical, that is, it is intended to show that the artificial in itself is part of naturalness when considered in its broad sense, that is, when the «nature» that one has in mind it is specifically human nature (2). Well, it is precisely an intrinsically substantial characteristic of human nature that of being able or having the intention not only to «submit» to nature, but to some extent to «replace» some aspects and in a special way, create together with the natural world, a vast world of artificial entities that constitute what is generally known as the «culture» sphere. This develops a growing range of new material objects, but also a series of customs, traditions, institutions and regulations, which constitute the «way of being» of man. Humans are unlike other animals that try to adapt to the environment instead to adapt the environment to their vital needs, even expanding this environment through a wide variety of artificial constructions, whether material or immaterial.

In order not to make our discourse too abstract, we will try to refer to a specific area of the bioethical debate, namely the practice of medically assisted procreation. It is easy to see, according to this practice, that if we accept to consider the artificial as ethically illicit (except in the few cases in which artificial manipulation facilitates the fulfillment of a natural function), we find ourselves trapped

in almost insurmountable ethical dilemmas. In fact, if it is affirmed that assisted procreation practices, due to their artificial connotation, are ethically illicit, it no longer makes sense to try to redeem them. Also, absolve certain methods by showing indulgence, for example, if these practices are performed in a «homologous» condition (that is, using gametes from the same legally established couple) and rejecting these practices in the «heterologous» contexts. However, also in the case of homologous procreation, more detailed questions soon arise and, for example, there are bioethicists who they require that all embryos obtained by in vitro fertilization be implanted in the woman's uterus. This approach is often presented as an application of the «lesser evil» principle. However, it is an incorrect way to understand the principle that can never be applied to situations that are already morally illicit; the correct application concerns only different options, but all intrinsically lawful.

Another example that could be considered is the debate about the morally lawful use of the so-called «supernumerary embryos» that are frozen and preserved during IVF (in vitro fertilization) practices. On them, in fact, there are those who argue that, after a certain time, they can be used to obtain stem cells for therapeutic or scientific research use (which obviously implies their suppression or «death»). Other authors, on the contrary, affirm that such practice is morally illicit and that, therefore, it is correct to let these embryos die of natural death. Faced with this dilemma, it is not uncommon for supporters of the negative prejudice against the artificiality of IVF to declare that they do not want to pronounce, since these remaining embryos «should not be there.» The sterility of this position is already an index of the unsustainability of an ethical condemnation of IVF simply because of its artificiality. Eliminating this obstacle, vice versa, would open the debate on many other ethical aspects of medically assisted procreation that deserve more attention and deeper study.

1. The question of the artificial in general

Respect for nature has been a fundamental principle of the morality of human actions during the tradition that, in the West, has known a duration of two thousand years and has come to assume a considerable force because it has been incorporated into Christian ethics, and in particular Catholic ethics.

Apparently, this principle weakened after a process of «secularization» through which Western culture went through. However, in recent decades it has recovered a surprising vitality, returning to present itself in a new way compared to what it had traditionally assumed. Today, for example, it receives significant support from those who hold environmental positions at a general level or in a particular level. From ethical approaches (in kind in bioethics, understood in a broader sense, that is, as a reflection that includes not only the sector ethics of medicine, but also what today is called environmental ethics, animal ethics and its related fields).

The consequence of this «valorization» of the natural (must be understood in the precise sense that nature is not only a *de facto* condition, but also a «value» to respect) lies in a more or less accentuated distrust of the «artificial», which is generally judged contrary to the «natural». «This opposition almost always implies a negative judgment towards the artificial, even with respect to values that are not specifically moral. For example, when it is said that a certain attitude is artificial, it is implied that it is not frank, genuine, authentic, and sincere. When it is emphasized that a food is artificial, it is implied that it does not have the characteristics of authenticity of natural products and even leaves the doubt that it can even be harmful.

By focusing our reflection on the moral realm, we can say that taking nature as a criterion of morally correct behavior goes back to Stoic philosophy, in which nature was conceived as the immanent realization of a *logos*, that is, of a principle (in essence divine, though not transcendent) that regulated the conformation of the

physical world, as well as the course of natural phenomena and of human existence itself, in accordance with rationality and wisdom. The *sequere naturam*, therefore, was presented as a basic ethical precept that included the acceptance of physical events, even the harmful ones, not less than the adaptation to social and historical conditions, which were also considered «natural» in a very large sense.

When Christianity spread throughout the West, and had to communicate its message to the «pagan» world, it was inevitable that it would seek to «conceptualize» this message through the intellectual instruments and the most accredited categories in that cultural context. Therefore, they assumed much of Neoplatonic thinking and Stoicism. In particular, the biblical-Christian notion of creation offered a kind of privileged framework for Christianizing the Stoic vision. The immanent logos of the Stoics was easily interpreted, as the consequence of the fact that the world expresses a desired order by God that, in His absolute wisdom has provided the best structure for everything and from which the social authority of people and institutions also comes. Remember the Pauline saying «*Omnis potestas a Deo*» (Romans, XIII, 1), that is «all power comes from God». In this way, a kind of hierarchical order was established, on whose top was God, Creator of Nature and within and subordinate to it, man. We could discuss whether the stoic vision assumed by nascent Christianity was really in conformity with the biblical spirit (in which the «living God» conferred manhood over nature and «revealed himself» as a man in history), and in conformity with the evangelical vision of human life, inspired by a hope dynamically oriented towards the future and committed to the transformation of the world and society under the impulse of the Spirit.

Anyway, such a conception was deeply rooted in Christian culture, and later in Islamic culture, so much so that medieval thinkers always supported the thesis that God «revealed himself» to man in two ways: through Revelation itself. (his divine manifestation to

the authors «inspired» by his Spirit) and through Nature. In fact, when an intellectualist approach began to be imposed within theology, the problem arose of how to guarantee the universality of moral norms, that is, their validity, for those who did not know or did not accept Revelation. The path that was opened was to insist more and more decisively on the human capacity for an understanding of nature, accessible to the human intellect thanks to the *lumen naturale* (the «natural light») that God himself grants to all men. The premises of this conception, which we can also call traditional, are those of the admission of an established order (both in nature and in society), its stability and immutability, and a conception of morality as a way of inserting consciously and voluntarily in that order, to which man must submit when making use of his free will. Undoubtedly in the fact of adapting morality to free will lies precisely moral evil; and as a consequence, obedience appeared as the great fundamental virtue: obedience to the natural order, the social order and the constituted political order (3).

This traditional framework has changed radically with the arrival of the modern era, characterized by at least three fundamental historical phenomena: the birth of *science*, in the modern sense of the term, the increasing value attributed to *individual freedom* and the *secularization* process.

The first phenomenon has involved, among other things, the shift from man from simple technique to technology. In fact, we can consider it as a new branch of the technique. Technology is constituted by the application of scientific knowledge to meet the most varied human needs. This phenomenon has allowed a prodigious development of the *artificial*, the creation of something authentically new that is placed next to the natural world and that very often *replaces it*. All this has brought many problems that we do not intend to address now. We will simply limit ourselves to observing that the new access to the same physical nature achieved by experimental sciences implied a radical change in the way of considering it: as something that can be «manipulated» to know it

more deeply and also to be able to exploit it after having known its secrets (nature thus loses that «sacred», untouchable and unavailable character, which tradition attributed to it). In addition, the progress of science has soon indicated that physical nature was not something fixed and immutable, since the earth, biological life forms, and the universe itself had known a historical development. The constitution of human sciences, on the other hand, indicated that the same phenomenon of development and variation could also be applied to social life forms, cultures, and the customs of men. These results of scientific knowledge have now become part of the common perception of the natural and human world, which makes it difficult to refer to a nature endowed with an intrinsic order (as today seems more like a field of complex interactions between a large variety of forces and structures, which are the result of a contingent history), and even more as the result of an immutable order.

Second, in the modern vision we find the emphasis placed on human freedom, conceived no longer as a simple freedom of choice (free will), but as a freedom of action that belongs primarily to the individual. Modernity has emphasized this freedom by first facing the problem of making it compatible with its social limitations, in a situation in which even the notion of a natural social order had declined and the concept of authority itself had deteriorated. Men had realized that, as they had been able to intervene actively in the natural order, they could do so in the social order to the point of changing it radically (through revolutions), without recognizing any consecrated authority to obey and respect unconditionally. At this point, the process of modernity is accelerated because man, now aware of his ability to intervene freely within the realities that he had «built» (such as social institutions), and gradually becoming accustomed to intervene in the same physical nature. He begins to realize that the development of human sciences (from medicine to psychology and sociology) offered him the possibility of intervening in his being a man, in a much deeper way

than in the past. At this point, the problem of respect for nature is sharpening again. Many wonder if freedom of action, understood as freedom of intervention and manipulation, can be exercised even when it comes to human nature (to the point that today, as we have mentioned the issue of the limits of technological manipulation returns with respect to non-human nature).

Third point: secularization, or rather the loss of religious reference as a basic framework for the conception of the world, of man and of history. This phenomenon takes away from the naturalistic doctrine the secular foundation that, as we have seen, was the fruit of assimilation by the Christian ethics of the stoic conception. However, it must be recognized that secularized modern thought could not give up rooting philosophical doctrines to nature, and especially to human nature, particularly when it came to guaranteeing its universal foundations. Thus, for example, the «natural law» doctrine was developed, in accordance with attempts to establish a «natural moral». Even religion was somehow redeemed in its legitimacy when the Enlightenment theorized a «natural religion» exempt from the authoritarianisms and dogmas of institutionalized religions. An agnostic author like Hume wrote a *Treaty on human nature*. Kantian Critics are actually attempts to derive the foundations of gnoseology and ethics from an investigation of «Pure Reason,» that is, about the «nature» of reason, both theoretical and practical, and Kant's freedom was considered as an essential characteristic of human nature, on which the absolute dignity of the person is based (4).

Therefore, what we have said so far does not imply that respect for nature has no meaning or relevance from a moral point of view and, in fact, it would be very strange that a centuries-old ethical tradition, which had made this respect even the main foundation of morality, was based on a misunderstanding or a serious error. On the other hand, it is significant that not only many modern philosophers have continued to refer to nature, but also even

today, as we have seen, this reference in the ethical field resurfaces in a non-trivial way. See for example Sowle (5).

The real problem, therefore, is not to contrast the natural and the artificial; to demonize the latter by opposing the former. It is to understand and promote the compatibility of these two dimensions by recognizing that it is possible (and in fact it should) favor the growth of the artificial while respecting naturalness, while not being absolutized or understood in a static way. The first step in achieving this perspective is to realize that the artificial in itself is a genuine expression of the natural. It must be taken into account that man himself belongs to nature but that respecting his natural constitution implies acceptance of artificiality (although not in an unconditional and absolute sense). It is not difficult to take this step: it is enough to reflect on the fact that, although non-human living species can survive and thrive, in general, adapting to the natural environment, man, on the contrary, survives and thrives by adapting the natural environment to himself, to his biological, psychological, social and spiritual needs. In other words, since the beginning of its history, man has built his own environment, both in the effort to exploit the natural conditions for his advantage and to defend himself from them and thus ensure his physical survival. However, it has also found the means to meet other needs through the production of codes of conduct, legislation, political and administrative structures, rituals and temples for the exercise of their religiosity, means of transport, weapons and armies, communication tools, etc.

All this is artificial, a product of art when this word is understood not in the modern and post-romantic sense of aesthetic creativity (or human orientation towards beauty). It is in the most fundamental sense contained in the Greek notion of *téchne*, which indicates an effective act and produce, the result of an awareness and intelligence of the appropriate means to achieve certain ends. This more original sense of «art» is expressed in the notion of technique that also derives etymologically from the notion of

téchne. Therefore, the artificial world is actually the world produced by man thanks to the technique that, as we have already seen, has developed especially after the development of science during the modern era.

In conclusion, the true ecosystem of man is essentially the technological world, a world that man has built by virtue of the capabilities and needs intrinsic to his specific nature, so that the rejection of technology is equivalent to a rejection of «naturalness» specifically human. In saying this, there is no intention to deny some basic facts. In the first place, the «natural world» continues to be part of the human ecosystem (although «measured» by technology) and, therefore, if a certain respect for nature is considered morally significant, this should imply both respect for technology as respect for nature. Secondly, that man cannot avoid «adapting» his environment; In fact, he not only adapts to the natural environment by modifying and replacing it in part with techniques, but also adapts to the technological environment that he is building. In the Third place, just as not everything natural is in itself and unconditionally «good», what is artificial is not in itself and unconditionally «bad». Based on these elements, it is possible to frame the ethical problems related to the morally correct way of interacting with nature and of developing and applying technology.

2. Nature and sexuality

The general discourse developed above allows us to overcome, in the context of assisted procreation and in which we now want to insist, the preliminary objections that sometimes arise due to the widespread use of the term «artificial techniques» (6).

It should be noted as the first point that these techniques are broadly comparable to those implemented by medicine and, at least within Western culture, have never been morally condemned. In fact, it has always been understood that they were aimed at «hel-

ping nature», in the sense that they promote the recovery of the «natural» biological or biopsychic functionality of human beings, both stimulating and strengthening their internal natural resources and combating possible aggressions of its surroundings. When objections are raised to assisted procreation practices in the name of respect for nature, it is not difficult to realize that they are considered contrary to *human nature*, and harmful in the relationship that, in the case of man, unites sexuality and reproduction, a relationship that, according to this conception, must be *inseparable*. Therefore, all therapies aimed at curing and overcoming the sterility of men and women would be considered morally legitimate (as long as they are included in common medical practice, that strives to make men recover their natural reproductive abilities) in such a way that, if such therapies are successful, reproduction can take place in the context of a «natural» exercise of sexuality, as a consequence of a normal sexual relationship. On the contrary, if such therapies were unsuccessful, it would not admit procreation outside the «natural» exercise of sexuality.

To understand the reasons for such a position, it is necessary to analyze the «biological» assumption on which it is based, that is, the assumption of absolute inseparability of sexuality and reproduction. This is a very complex issue, which refers to the connection between corporeality and spirituality in man and has always been a source of problems for ethics (see, for example, Moreland) (7).

Within the «natural order», it is quite obvious that sexuality appears as the form by which many animal and plant species (that is, all species characterized by the so-called «sexed reproduction») perform reproduction. In the case of animals, this reproductive function is characterized by the presence of a sexual instinct that can be interpreted as a behavioral impulse aimed at the «conservation of the species», as a way of expanding the instinct of self-preservation present in each living being. In the case of man, this instinct is combined with its psychic dimensions and is expressed

in «sexual love» understood as a particular form of affective attitude that attracts individuals of opposite sexes. This biological interpretation of sexuality was not limited to the tradition of Christian inspiration. It is enough to quote a philosopher like Schopenhauer who considered love, even in its most ideal and romantic form, as a «cunning of Will» (that is, as an immanent metaphysical principle in everything real) that seeks to ensure, through reproduction, a mode of permanence, beyond the death of singular individuals (8).

Being common in all Western traditions (at least until the nineteenth century), the conviction that man is not a purely biological being, but also a «social animal», as Aristotle already pointed out, derives from it that the exercise of sexuality according to human nature must also be placed within its appropriate social order (considered itself as a natural order). This natural and social sphere was the family, in which the correct exercise of sexuality followed the reproductive end of the birth of «legitimate» beings. Other elaborations of this «naturalistic» doctrine added that the family must be monogamous and even that the family union must be indissoluble.

It is useless to say that these doctrines are not common in all cultures and that, in particular, only the Catholic tradition has supported all of these theses. However, what we are interested in observing is that the defenders of this doctrine maintain that it corresponds to an objective and correct analysis of the nature of human sexuality and that doctrines that do not accept one or the other of these elements are wrong. It is precisely in this complex interconnection between sexuality, reproduction and social institutions that the close relationship between bioethics and law related to medically assisted reproduction is rooted (see, for example, Palazzani, Baldini, Casonato, Morresi, Zatti) (9). The complexity of the legal regulation was at the root of the referendums that referred to assisted procreation practices (10).

It has been objected to these positions that, while in most animal species the sexual instinct is activated and manifests itself

only in certain periods, that is, when the sexual union corresponds to times when mating can be fertile, that is giving rise to reproduction, but in man this limitation does not exist. This would indicate that in him sexuality is not linked to reproduction even at the level of instinct. The answer given to this objection is based on an additional analysis of human nature in the following terms: man possesses in the strictly animal part of his nature, a spontaneous and very strong tendency for the pursuit of pleasure and, in particular, of sexual pleasure. This trend was called concupiscence. However, man is by nature a reasonable animal, since in him there is a greater dimension than mere instinct; That is the reason why it is not only qualitatively superior and in its hierarchical rank, but it is also capable of governing and controlling the animal part linked to its corporeality or instincts. Therefore, moral life is characterized by a constant struggle of reason to dominate the pursuit of pleasure.

This is the *anti-hedonistic* conception of morality, which has already found its clearest expressions in the ancient world with Socrates and Plato. Later on, it has been incorporated into Christianity in the form of the conflicting relationship between the soul and the body. The consequent doctrine, is the contrast between the «law of the spirit» and the «law of the flesh» (St. Paul, for example, speaks of the «*stimulus carnis qui me colafizcat*», that is, the stimulation of the flesh that strikes it, and which God imposed for keeping it in humility, while constantly testing it).

The mention of this morally negative tendency is found even in the traditional definition of the purposes of Christian marriage: the primary purpose is the procreation of children. The second objective is the *remedium concupiscentiae*: a solution to calm the impulses towards the sexual, through the exercise of an intramarital sexuality, however, always «open to conception». Only in times that are more recent, was the end of the interpersonal union of spouses and the commitment to the care and education of children in Catholic doctrine included in the purposes of marriage, without placing these ends in a hierarchical order. On the surface,

this enlargement seems to imply a greater tolerance with respect to the previous position, but in reality it is not so. In fact (according to this doctrine), it is not admitted that it is morally permissible to pursue only one of these purposes excluding others: all must be respected and this position determines different ethical positions in the area that interests us.

The presentation outlined here, apparently refers to the interpretation of human sexuality in general, or the «sphere of sexuality». We could summarize it in the doctrine according to which sexual activity conforms to human nature while respecting it «as a whole», without taking into account the particular circumstances and responding to its three purposes. However, the doctrine of respect for nature in this field is much more restrictive, since it refers to each sexual act considered in itself, that is, regardless of the interpretations or intentions that accompany or determine it (circumstances). The consequences of such a doctrine are many and well known. Masturbation for example is considered an «act against nature», not only because the exercise of sexuality does not fit the sexual act that takes place in the union of two bodies, but also because it is totally foreign to the purpose of procreation. For the same reason homosexual relationships are considered unnatural. Almost all contraceptive methods fall under the same sentence, as they intentionally exclude procreation. Only methods consisting in exploiting the knowledge of the «natural» physiological rhythms of women are tolerated, limiting relations to those periods in which the woman is not fertile, but without artificially inducing this infertility; the sexual act is carried out in accordance with natural modalities and the absence of fertilization is due to natural circumstances. The punctual intention of not procreating is then morally accepted because there are adequate reasons and because, on the other hand, the end of «union» between spouses justifies sexual relations, beyond the pure pursuit of pleasure.

The problem area considered so far could be summarized as follows: no sexuality without procreation; and it is not morally per-

missible to separate the exercise of sexuality from procreation because nature imposes it; to the maximum, its use is allowed during periods in which nature does not offer conditions of procreation. This is the doctrine still defended by the Catholic Church and one might think that it reflects the ancient conception of sexuality understood as concupiscence –the search for pleasure–. It is a moral conception that rejects the pursuit of pleasure as the engine of human actions. In other words, it would be a doctrinal elaboration aimed at supporting the anti-hedonistic attitude that characterizes traditional ethics and, in particular, Catholic morality.

It must be recognized that this is largely true. However, the scope of the naturalistic view is more clearly appreciated when it is considered that based on this, not only a «sexuality without reproduction» is condemned, but also a «reproduction without sexuality», assuming this second expression in the restrictive sense of a reproduction that takes place outside the conditions of the «natural» *sexual act*. It is precisely this restrictive interpretation of the «nature» of sexuality, which has led to many moral oppositions to all assisted procreation practices. In fact, it is clear that in all of these (with the exception of cloning that cannot be considered in an appropriate sense as an assisted procreation technique), procreation is achieved through the union of male and female gametes, that is, is a «sexual reproduction» in the biological sense of the term.

The common characteristic of all these practices is that fertilization does not take place in the context of the sexual act and, for this reason, falls under the condemnation of those who defend this «naturalistic» position. Therefore, we understand what we have already underlined earlier, namely, moral condemnation does not depend on the fact that in these practices, we resort to a certain number of «artificial techniques» often very complex, (we have already clarified that this type of «naturalistic» position it does not condemn medical techniques that «help nature» without «replacing it»), but by the fact that they are supposed to violate the very natu-

re of human reproduction that is not separable from the sexual act. For this reason, the Catholic Church has condemned from the beginning the practices of pure and simple artificial insemination, even when they were «homologous» (that is, implemented within the married couple regularly according to the Catholic rite) and, that it consisted simply of sowing the Sperm from the husband in the wife's vagina through a syringe.¹ It is clear that this type of objection is even more radical in the case of all those other techniques that involve extracorporeal fertilization of the human ovum.²

This position has often been accused of *biologism*, since in it the condition of man equals that of all mammals, for which the sexual act and reproduction are inseparable. To this theoretical objection is added a difficulty to receive from the «common moral sense» of our times, accustomed to accept without problems the use of appropriate «techniques» in all areas of daily life and, in particular, in the medical field. This common feeling does not understand why a certain technique that allows the conception is condemnable only because it does not go through the mediation of the sexual act. This explains not only the fact that various forms of assisted procreation are practiced in many centers and hospitals that depend on overtly Catholic institutions (in which, in addition, certain other moral limitations are respected). Furthermore, also the fact that there are not few Catholic authors who openly criticize this conception, since their defenders could not convincingly show the reasons (apart from adhering to the stoic scheme mentioned above). Therefore, a procreation carried out outside the normal conditions of the sexual act, would be morally bad. To address with these difficulties, supporters of the naturalist doctrine have recently developed a less «biological» line of defense. The foregone to emphasize the fact that in the human sexual act, a condition of love and union is achieved that constitutes the appropriate framework for receiving a new human being, given that in the case of assisted procreation such a condition is not met. Therefore, one would face a procreation that is not in conformity with the dignity

of the human person, both when speaking of the dignity of the parents and of the fetus (see, for example, Ratzinger) [11]. Now we will try to analyze critically the development of this naturalistic doctrine.

3. Procreation and «human» sexuality

We have previously criticized the idea that «natural» is given absolute value as a reason to condemn the «artificial», showing the compatibility of the «artificial» with the specific characteristics of *human nature*. Now we will try to show how an analysis of sexuality and, more specifically, of human reproduction does not justify naturalistic positions, even in their less biological version, from the moment they express values, which must be duly taken into account.

Let us first examine the issue of the inseparability of sexuality and reproduction. If we admit that there is probably such inseparability in the case of animals, to clarify whether it persists in humans (although doubts may arise, considering, for example, sexual practice for social cohesion purposes –without reproductive function– in certain chimpanzee subspecies). We cannot avoid doing a *phenomenological analysis*, that is, a «faithful description» of what really happens in what can be considered as a typical and specific aspect of human sexuality. We refer to the phenomenon of falling in love: that form of attraction between individuals of the opposite sex. We can consider this phenomenon as a bipolar relationship that concerns two people taken in their entirety and that provokes a desire for mutual presence, a «living together», a sharing of time and life, which also includes the desire for a physical union, in which the desire to reach reproduction does not appear automatically. Falling in love is a *feeling* and *passion* that certainly have a biological component, which stimulate the psychic sphere of dreams, expectations, as well as artistic creativity and the

way of considering existence as a whole. Man, as being «reasonable», attains an awareness when he reflects on the state of his love; only later (and not necessarily always) will he feel the desire to procreate, not only with the intention of «reproduce or breed», but also as a yearning to have a child with that particular person you fell in love with.

Poets, novelists, philosophers and psychologists delve deeper into helping us discover how deep *human* sexuality is, an existential dimension that presents itself as an omnipresent reality, inherent in the person, rather than a biopsychic disposition whose purpose leads to the reproduction. It follows that the *inseparability* of sexuality and reproduction (in the human case) lacks a phenomenological justification and should therefore be based on rigorous arguments that it has never produced. This does not exclude that, in many cases, the desire to have a child is presented as a strong impetus product of the relationship of love between two human beings and being so that reproduction plays a leading role at an existential level, not purely biological. However, this fact cannot be taken as a *necessary* feature.

If what has been stated is correct, it follows that a sexuality that does not pursue the purpose of procreation (but realizes other values included in such sexuality) may be in conformity with the *complex nature* of human sexuality, as well as a procreation that is carried out without passing through the biological conditions of sexuality. Therefore, these two forms of human sexuality cannot be morally condemned by those who defend conformity with nature as a criterion of morality and if moral objections arise, they must be based on other principles or values. It exceeds the limits of this work to discuss the consequences of this conclusion concerning an exercise of sexuality «without reproduction». Instead, we are interested in the scope of problems related to techniques that allow the achievement of reproduction without going through the physiological condition of «natural» reproduction, that is, through the sexual act. That is why we will now deal only with

«naturalistic» objections, leaving aside the discussion of *other types* of ethical issues related to assisted procreation.

As we have already seen, the naturalistic position considers two different aspects. When it comes to condemning the exercise of the sexual act to the exclusion of reproduction, it declares that this act contains the reproductive purpose in itself, and for *no reason* is allowed to oppose this purpose. This means that the prohibition applies not only when the motivation of the act is the pure pursuit of pleasure (in this case, the reason for the prohibition would be the expression of an anti-hedonistic ethics), but also when procreation is dictated for medical reasons, economic, social or psychological. Nor would such a position admit the justification of the morality of this behavior because there are the conditions of union, dedication, intimacy and freedom that characterize the genuinely human exercise of sexuality. Even less, would accept that the human being could *freely* decide to procreate or not to procreate, when and how much to procreate, or renounce to pursue the «non-reproductive» aspects of sexuality: this would be the vision of a «libertarian» ethics, the opposite of a naturalist ethics.

Given the fact that human beings tend «naturally» to practice sexuality at all times that is also, during the non-fertile periods of women, naturalists recognize this morally lawful exercise. This corresponds to the purposes of union and of love implicit in human sexuality and that can be done as long as the reproductive result of the sexual act is not directly avoided (this act must always remain «open to procreation»). Now we are not interested in discussing whether such a perspective is well founded, but in pointing out that, it requires that *all* aspects of human sexuality be present in its morally correct exercise.³

Let us now consider assisted procreation practices

In them, of course, reproduction is the primary and explicit purpose. The «recent» naturalists (as we have seen) object that such

practices lack consistency with the dignity of the human being, because it is a conception outside the framework of love, intimacy, union and mutual donation of their parents as they express themselves during sex. However, this way of presenting reproduction is perhaps more rhetorical than objective if we consider individual sexual acts, since in most cases they do not give rise to conception, even when the deepest conditions of love are met with the firm intention of reaching a conception. Moreover, very often the conception results from routine sexual encounters, or from drunken nights, or in the best case without the slightest intention of procreating a child –when it is not even with the intention of not having it–. Therefore, we can admit that the *ideal* thing would be for each being to be born freely desired, planned, loved beforehand and as a result of a sexual act full of love and mutual donation between their parents. This situation of «human dignity» remains in the ideal world; Reality often differs. However, the lack of conditions cannot be a reason to *morally* condemn human procreation and, above all, the lack of the physiological condition, especially if this lack is imposed by «nature» and the couple experiences it with suffering. Thus, in the case of assisted procreation where the opposite could even be said: followed in assisted procreation practices the *human* aspects of reproduction meet more than in the natural sexual act, as we will see below.

First, the procreation of a human being constitutes an explicit, conscious and freely chosen end, constantly pursued by the couple throughout the treatment. In this way, it turns out to be a chain of *human actions* in the broadest sense of the word, that is, conscious and free acts. Furthermore, speaking of the dignity of the baby, it seems quite rhetorical to say that an atmosphere of love must welcome the moment of biological conception; Isn't an attitude of acceptance and love more essential while this child begins his journey in life (that is, during pregnancy and after birth)? This condition would be less guaranteed in the case of natural conception (which can be random and even unwanted).

Secondly, it seems correct to observe that the aspect of union and love that (in ideal cases) is expressed emotionally and «instantaneously» in the sexual act, is expressed explicitly, consciously and «enduringly» during assisted procreation practices. In fact, sometimes, they involve a more or less prolonged treatment, sometimes by the man, but mainly by the woman who must accept an intense dose of physical suffering during the processes of preparation, of hormonal super stimulation, of monitoring, of ovule extraction and embryo transfer. That is not to mention the state of tension and true psychological anxiety on which uncertainty depends on the favorable success of these treatments (a success that is scarcely known when percentages are evaluated).

This situation is exacerbated when the couple is forced to repeat the treatment in case of failures followed (sometimes resorting to dozens of times). To overcome all these *tests*, not only a constant love for the child, desired and wanted, is needed, but also a mutual and constant support from both partners. Therefore, parents are called to be more strongly *united* and able to express mutual *love* through the understanding and participation that this «common struggle» requires, (especially when the first attempts are unsuccessful, and the treatment must be repeated, with the constant shock of never reaching the goal). In short, undergoing assisted procreation procedures and persevering in them, constitutes an exercise of authentic virtue, of self-denial, of acceptance of suffering, of perseverance, of spirit of sacrifice. Therefore, it seems quite insulting to describe all this as «immoral», just because the naturalistic position has determined that its practices do not exploit the «natural» physiological conditions (with its characteristics of pleasure and enjoyment). It is certainly not the case to change plans and affirm, for example, that assisted procreation is morally «superior» compared to natural. However, it seems right to recognize that the latter can represent (by respecting other ethical demands that we will not address here), a very significant example of how man can be called to exercise his moral characteristics and

his dignity to be conscious and free, with those «new» situations that artificial and technology put at your disposal.

As we saw at the beginning, the artificial is nothing more than the projection of *human nature*. We must recognize that the moral aspects of it can and should be developed without «relinquishing» to the limits and obstacles posed by human nature, in its material dimension and biological, but struggling to overcome it «artificially» respecting that it exceeds the limits of purely animal nature.

Conclusions

Coming back to the general speech. We have stopped in a sufficiently detailed analysis of medically assisted procreation with a double purpose: firstly, to return to the concept of nature of the extension, the width of its philosophical meaning, freeing it from the narrow limits of the physicalist and materialistic types that have affected in modern culture. According to its broader meaning, the nature of a human being is the set of properties that make that being «what it really is». Applied to the human being, this criterion obliges us to recognize that one of its outstanding characteristics is that of building an artificial world. That is to say, a highly articulated and varied system of concrete things, of institutions, of life forms, which are placed at a side of those conditions of their environment that he, has not built and that, together with them, constitute his real environment. Therefore, what is artificial, is part of the human nature and hence, is «natural» also. In this way, the break between natural and artificial is closed and the basis is mostly eliminated to affirm that the natural is in itself ethically good and the artificial is intrinsically bad or open to evil.

This almost equal position, allows us to recognize that not everything that is natural is «good», just as well as not everything artificial is «bad», in a sense that is not yet specifically ethical but simply understood as something positive or negative, favorable or

harmful to man. At this point, it is easy to see that the artificial, is created many times by man to correct or combat the «bad» aspects of the natural, as in the case of medicine, or when men, modify the environment for their benefit or build a vast variety of artifacts to meet their needs and desires.

The considerations that we have just proposed clarify that the artificial is intrinsically a means and, as such, the moral lawfulness of its use depends on the objectives, conditions and consequences of the human action in which it occurs. This does not mean that the intended purpose, circumstances or foreseen consequences «ethically» justify the means. Nevertheless, it is stressed that the moral legality of a given act cannot be assessed without taking into account all these aspects. With this, we do not want either to deny that there can be «bad» acts intrinsically, even though it seems extremely difficult to propose compelling examples of such acts. For example, even killing is not considered absolutely bad in itself, since a moral difference is admitted between killing a chicken, and killing a person, and also in the case of a person the moral lawfulness of killing it, is admitted in contexts such as self-defense, the death penalty, war, that is, when particular conditions of this act are considered.

In particular, a pure and simple act, as such, does not pursue *ends* and only produces effects. Human actions, on the contrary, are characterized by being *intentionally* performed acts to pursue represented ends that normally result from a selection between the effects of the act, according to which certain ends are pursued and others excluded. The detailed discussion we have devoted to medically assisted procreation and the relationship between sexuality and reproduction. has served to clarify this discourse in a specific case. However, this applies in general, to all cases in which the artificial serves as a means to achieve certain ends and these cases are very abundant in the life of advanced societies. In each of these cases, a specific purpose is intentionally pursued (such as moving from one place to another with a means of transport or heating an

apartment by means of thermosiphons) and an infinity of other purposes of human actions. However, the effects of the acts involved in our actions, enter into a very wide and complex network of other effects and conditions existing in the world of life, producing as unintended results situations that we consider «negative» from different points of view.

It is not a lack of good will or ignorance. It is about the fact that the progress of science and technology undoubtedly produces the solution of many problems, but at the same time, these solutions cause new unprecedented and usually unpredictable dilemmas. On the other hand, no science or technology offers the instruments to handle a situation that implies global judgments and options about the meaning, direction and possible limitations of scientific and technological development. In short, it is necessary to have a certain range of purposes endowed with a value in themselves and not by the fact of «serving» something else. A reflection will help us describe and promote the values that could help us overcome the blind optimism of science as well as the blind fear that inspires anti-science. The eco-ethics, or ethics of the environment, is based precisely on this approach since it does not fall into the trap and the deception that these problems can be solved only through more and more technology. This awareness must also accompany our way of considering robots: these are machines and they are still so, although they can imitate the human being in many activities and enhance their possibilities. Moreover, they help to understand better how certain parts of his being work (like the brain). For these reasons, the thesis of «transhumanism» which, at least according to certain authors, affirms that an «improvement» of man can be reached, by incorporating into his nature what is artificial. Obviously, everything depends on what is understood by this «improvement», that is, it depends on the list of values that will be presented and the discourse that specifically indicates how techno-sciences can help man to promote them.

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Notes

¹ Although there is no documented news, it can be considered that artificial insemination practices began in the mid-nineteenth century and soon sparked a lively medical-theological debate, so much so, that at the end of the century it was raised from France to the office of the Holy Office, the question about the moral legality of this practice. The answer, given in 1897, was categorical: non-licet

(without a license). The first explicit documents of the Magisterium date back to the period immediately after World War II, when artificial insemination had become widespread. Pius XII intervened on the subject in 1949, 1951, 1956 and 1958, absolutely condemning the practice and admitting only artificial interventions intended to facilitate the sexual act and not to replace it completely (they were reduced to methods of dilation of the uterus in the case of a congenital malformation and corrective techniques of the sexual act to facilitate the ascent of the seed in the female uterus).

² A systematic, authorized and updated presentation of Catholic doctrine in the bioethical field is contained in the treaty written by Cardinal Elio Sgreccia (12).

³ This indivisibility of the unitive and procreative aspects of the sexual act was initially underlined to condemn morally the practice of sexuality without reproduction or, specifically, contraceptive methods and is a theoretical cornerstone of the encyclical *Humanae vitae* (1968) of Paul VI. In which the problem of extracorporeal in vitro fertilization is not even mentioned, which at that time still appeared as quite theoretical speculation. Only in 1978, became known the first baby obtained through IVF in Cambridge. Immediately after, along with the dissemination of such practices, the positions of condemnation began to appear in the ethical literature and in the documents of the Magisterium, which resumed and deepened the doctrine of the indivisibility of the two aspects of the sexual act already enunciated by the previous pontiffs and developed in the *Humanae vitae*. The foregone were applied to reproductive practices without sexuality (typical in this sense are the encyclical *Evangelium vitae* of John Paul II of 1995 and the Instruction on respect for nascent human life and the dignity of procreation, most frequently cited with the Latin words *Donum vitae*, issued by the Congregation for the Doctrine of the Faith in 1987).

In the documents of the Magisterium mentioned above, we speak in general of dignity without distinguishing between the dignity of the parents and that of the child. Thus, in *Donum vitae* it is stated that artificial fertilization practices «should not be rejected as artificial... but should be morally evaluated in reference to the dignity of the human person, called to perform the divine vocation to the gift of love and the gift of life» (DV Intr., 3). The child, therefore, must be the direct fruit of conjugal love, not mediated by a technical intervention, so that assisted procreation, in any case, «deprives human procreation of the inherent dignity of it» (DV, II, 5). That respect for the dignity of the fetus can also be violated is implied in *Evangelium vitae* which, after emphasizing that the generative act has a biological, anthropological and theological aspect (n. 43) adds that «in the biology of the generation it is inscribed the genealogy of the person. «This implies what some Catholic authors have developed», that is, that it does not agree with the dignity of the child that the origin of his «genealogy» would not be found the completely anthropological context of the union of love between the parents, which constitute the sexual act.

