

Human Rights and Assisted Reproductive Technologies (ART): A Contractarian Approach

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[See table of contents](#)

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Article abstract

What are human rights? Do they exist? I propose to answer these questions by advancing a contractarian account of human rights. I focus on the human right to found a family and have children. I also show how the contractarian approach to human rights can explain the current relevance of reproductive rights in the human rights discourse, and how the emergence of ART (Assisted Reproductive Technologies) has contributed to this shift. The contractarian account of human rights asks, firstly, the following question: which basic needs and desires can be ascribed to any human being regardless of gender, nationality, sexual orientation, age, ethnicity etc.? Having an interest, for instance, in preserving one's own bodily integrity, freedom, and private property qualifies as a basic human need or basic desire. But a basic human need or desire does not constitute in itself a human right. Secondly, the contractarian account of human rights asks, then, which basic human needs or basic desires individuals and states representatives would consider so important that they would agree to create institutional frameworks, both at the domestic and international level, in such a way as to enable individuals to pursue the fulfilment of their basic needs or desires without state interference. Human rights exist and can only be claimed in the context of these normative frameworks.

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ARTICLE (ÉVALUÉ PAR LES PAIRS / PEER-REVIEWED)

Human Rights and Assisted Reproductive Technologies (ART): A Contractarian Approach

Marcelo de Araujo^{a,b}

Résumé

Que sont les droits de l'homme? Existent-ils? Je me propose de répondre à ces questions en proposant un compte-rendu contractuel des droits de l'homme. Je me concentre sur le droit de fonder une famille et d'avoir des enfants. Je montre également comment l'approche contractuelle des droits de l'homme peut expliquer la pertinence actuelle des droits reproductifs dans le discours sur les droits de l'homme, et comment l'émergence des TRA (technologies de reproduction assistée) a contribué à ce changement. Le compte rendu contractuel des droits de l'homme pose, en premier lieu, la question suivante : quels besoins et désirs fondamentaux peuvent être attribués à tout être humain indépendamment de son sexe, de sa nationalité, de son orientation sexuelle, de son âge, de son appartenance ethnique, etc. Le fait d'avoir un intérêt, par exemple, à préserver sa propre intégrité corporelle, sa liberté et sa propriété privée est considéré comme un besoin fondamental ou un désir fondamental de l'être humain. Mais un besoin ou un désir humain fondamental ne constitue pas en soi un droit de l'homme. Deuxièmement, le compte rendu contractuel des droits de l'homme demande donc quels besoins ou désirs fondamentaux de l'homme les individus et les représentants des États considéreraient comme si importants qu'ils accepteraient de créer des cadres institutionnels, tant au niveau national qu'international, de manière à permettre aux individus de poursuivre la satisfaction de leurs besoins ou désirs fondamentaux sans interférence de l'État. Les droits de l'homme existent et ne peuvent être revendiqués que dans le contexte de ces cadres normatifs.

Mots-clés

contractarianisme, vertus, droits de l'homme, TRA, technologies de reproduction assistée, David Hume, Immanuel Kant

Abstract

What are human rights? Do they exist? I propose to answer these questions by advancing a contractarian account of human rights. I focus on the human right to found a family and have children. I also show how the contractarian approach to human rights can explain the current relevance of reproductive rights in the human rights discourse, and how the emergence of ART (Assisted Reproductive Technologies) has contributed to this shift. The contractarian account of human rights asks, firstly, the following question: which basic needs and desires can be ascribed to any human being regardless of gender, nationality, sexual orientation, age, ethnicity etc.? Having an interest, for instance, in preserving one's own bodily integrity, freedom, and private property qualifies as a basic human need or basic desire. But a basic human need or desire does not constitute in itself a human right. Secondly, the contractarian account of human rights asks, then, which basic human needs or basic desires individuals and states representatives would consider so important that they would agree to create institutional frameworks, both at the domestic and international level, in such a way as to enable individuals to pursue the fulfilment of their basic needs or desires without state interference. Human rights exist and can only be claimed in the context of these normative frameworks.

Keywords

contractarianism, virtues, human rights, ART, Assisted Reproductive Technologies, David Hume, Immanuel Kant

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MORAL CONTRACTARIANISM AND HUMAN RIGHTS

Human rights constitute a particular kind of moral claim, namely, a claim that is directed at the state or the system of states as a whole. Although human rights are important moral claims, indeed the most important standard of public morality in democratic societies, there is no reason to reduce morality to a human rights discourse. As James Griffin aptly puts the problem: "It is a great, but now common, mistake to think that, because we see rights as especially important in morality, we must make everything especially important in morality into a right" (1, p.43). Benevolence, compassion, and charity, for instance, are also important elements of morality. An individual who refrains from assaulting other individuals – or who acts for the benefit of other individuals – even in situations involving some degree of self-sacrifice need not justify their actions in terms of respect for human rights. They may simply act because they are moved by dispositions or virtues such as benevolence, compassion, or charity. Thus, when an individual A poses a threat to another individual B, B may appeal to A's benevolence, compassion, or charity. If B's appeal to A's benevolence, compassion or charity is not successful, or if B considers that an appeal to A's moral virtues will fall on deaf ears, B can require the protection of the state against A's threats. But because the state has a great deal of power over the lives of A and B, it is also important, for both A and B, to have some protection from potential threats from the state. Human rights are protections of this kind.

A's threat against B, of course, can also be translated into the human rights discourse, that is in terms of human rights violations, but this is not necessary. Indeed, it can be quite misleading to describe mutual violence among ordinary citizens in

terms of human rights violations, unless of course the violence results from the state's failure to provide some reasonable degree of security or support to its citizens. When a citizen, for instance, is murdered during a bank robbery, their death is not usually referred to – whether in the press, in police reports, or court decisions and legal documents – as a human rights violation. But when the state, or someone acting on behalf of the state such as the police or a soldier, kills a citizen, the killing may be described in terms of human rights violations. In like manner, when a husband assaults his wife because the state has failed to enact laws that protect women against domestic violence, his assault can also be described in terms of human rights violations. In the course of the twentieth century, human rights have become the main standard of public morality, both at a domestic and international level. In this article, I understand human rights as moral claims against the state.

For a long time, philosophical theories of justice did well without any reference to human rights (2-4).¹ But this changed with early modern philosophy. As the state itself started to be seen as a powerful potential threat to its citizens, and human nature started to be seen as less inclined to benevolence, compassion and charity than pre-modern political thought had assumed, it became increasingly clear that political and moral philosophy could not rely on virtues such as benevolence, compassion and charity as the foundations of public morality.

When A acts towards B with benevolence, compassion or charity, A acts morally – at least on most accounts of what morality is about. And B does indeed benefit from A's action. B, thus, has a reason to be *grateful* to A. But from B's perspective, A is merely doing B a *favour*. In some circumstances, when B cannot count on anyone else to fulfil B's basic needs or desires, we may say that B is at the *mercy* of A. This puts B in a submissive position relative to A. It is reasonable to assume, though, that B does not have the desire to be constantly at the mercy of A, especially in those circumstances in which B's most basic needs or desires are at stake. Modern political and moral philosophy tried to address this problem by suggesting that regardless of A's inclinations (being benevolent, merciful, or generous), B has a legitimate moral claim against A or, indeed, against any other individual or institution in matters relating to his or her bodily integrity, freedom, and private property. It is this kind of contrast between the perspectives that A and B have concerning their own positions, in morally relevant situations, that Kant had in mind in a passage that has not received much attention in the contemporary debate on the philosophical foundations of human rights:

Many persons do have the desire to perform good actions; but they do not want to put themselves under an obligation towards other persons. If someone comes to them in a submissive way, they will do everything; [but] they do not want to subject themselves to the rights of another person [in German: *rechtsamen der Menschen*], but only [treat them] as the object of their generosity. The prerogative I resort to in order to claim something is not indifferent. What belongs to me should not be granted to me just as a matter of favour (5).²

The problem, though, is how to make sense of the claim that we have human rights or natural rights regardless of our inclinations, desires or interests. How can B have a legitimate moral right against A, or against the state, regardless of the actual desires or inclinations that move A or state representatives at large? Jeremy Bentham seems to have been the first philosopher who realized that natural rights theories confounded the *wish* to have rights with the rights themselves (6,7).³ In the absence of political institutions, both at a domestic and international level, persons do already have the *wish* to be treated in a certain way when some vital interests are at stake, that is interests, for instance, relative to bodily integrity, freedom, and private property. In these circumstances, nobody wants to be at the mercy of other people's benevolence, compassion, or charity. They want to have a right and, indeed, the means to claim that right. But wishing to have a right is not the same as having a right. Bentham himself did not propose a human rights theory. Yet, the problem to which he calls attention is still considered a major challenge to any philosophical account of human rights (8-11).

It seems to me that moral contractarianism enables us to successfully address Bentham's challenge. Moral contractarianism has been defended but authors such as David Gauthier, Peter Stemmer and Malcom Murray (12-14). However, these authors

¹ "Moral philosophers in ancient and medieval Europe were greatly concerned with the question of distributive justice, and thus with the question of what is due to us as a matter of right. But they lacked a vocabulary to articulate the suggestion that what is due to us as matter of right is something which can in turn be called our right. It was only during the later Middle Ages that this conception of 'subjective' right began to enter European political discourse. And it was only in the course of the seventeenth century that the concept began to acquire that moral hegemony which it has never subsequently lost." (2, p.39-40) "For a thousand years Roman Law carried on quite happily without any such things. It was, of course, right to do certain things; but people did not have rights. Things had the property of being right, but there was no substantial or fictitious entity, talked of as existing, or as possessed by people." (3, p.95) "By 'rights' I do not mean those right conferred by positive law or custom on specified classes of persons; I mean those rights which are alleged to belong to human beings as such and which are cited as a reason for holding that people ought not be interfered with in their pursuit of life, liberty and happiness. They are rights which were spoken of in the eighteenth century as natural rights or as the rights of man. Characteristically in that century they were defined negatively, precisely as rights not to be interfered with. But sometimes in that century and much more often in our positive rights – rights to due process, to education or to employment are examples – are added to the list. The expression 'human rights' is now commoner than either of the eighteenth-century expressions. But whether negative or positive rights and however named they are supposed to attach equally to all individuals, whatever their sex, race, religion, talent or deserts, and to provide a ground for a variety of particular moral stances. (...) there is no expression in any ancient or medieval language correctly translated by our expression 'a right' until near the close of the middle ages: the concept lacks any means of expression in Hebrew, Greek, Latin or Arabic, classical or medieval, before about 1400 (...)" (4, p.68-69)

² Kant's "Reflexionen zur Moralphilosophie" have been partially translated into English as "Notes on moral philosophy" (Immanuel Kant. Notes and Fragments. Guyer P (ed.). Bowman C, Guyer P, Rauscher F (translators). Cambridge: Cambridge University Press, 2005. This particular passage, however, has not been included in the volume.

³ "Rights are, then, the fruits of the law, and of the law alone. There are no rights without law – no rights contrary to the law – no rights anterior to the law. Before the existence of laws there may be reasons for wishing that there were laws – and doubtless such reasons cannot be wanting, and those of the strongest kind; – but a reason for wishing that we possessed a right, does not constitute a right. To confound the existence of a reason for wishing that we possessed a right, with the existence of the right itself, is to confound the existence of a want with the means of relieving it. It is the same as if one should say, everybody is subject to hunger, *therefore everybody has something to eat.*" (6, p.211-230)

are not primarily concerned with an account of human rights but instead with the philosophical foundations of morality. In what follows, my intention is not to advance a new, fully-fledged account of moral contractarianism. My goal here is to extend the contractarian account of morality to a philosophical account of human rights (15).⁴ Then, I intend to focus on the human right to found a family and have children.

Human rights are human, not because human beings are naturally endowed with a particular class of rights, but because human beings themselves create human rights in order to address some basic needs or desires that can be ascribed to any human being regardless of gender, nationality, sexual orientation, age, ethnicity, etc. But having a basic need or a basic desire is not the same as having a corresponding human right. No matter how strong or how *natural* our basic needs and desires are, basic needs and desires, considered in themselves, are not yet rights. However, basic needs and desires do have great motivational power. If B is starving and has a strong need or desire to eat something, this desire is for B (all things considered) a *reason* to open the fridge and take something to eat, assuming, of course, that B is in possession of some food. But B's reason does not necessarily represent for another person, A, a reason to provide B with something to eat, unless of course A happens to be moved by sentiments or virtues such as benevolence, compassion, love or charity. In this case, A's reason to help B is not *unconditional*. This reason binds A to act accordingly only to the extent that A is moved by the relevant sentiments. Some moral theories, however, assume that there are reasons that also bind us *unconditionally*.

Kant's moral theory, for instance, involves a conception of practical reason according to which reason itself has a motivational power, so that regardless of A's virtues, sentiments or inclinations, A has a reason, indeed a moral reason, to behave towards B accordingly. From a Kantian perspective, therefore, in some situations B's claim against A, or against any other person or institution, are *unconditional* (or "categorical" in Kant's terminology). The moral force of these claims does not depend on other persons' or institutions being moved by the relevant sentiments. In this article, I will not try to discredit this conception of practical reason, nor shall I examine its implications for a philosophical account of human rights and for bioethics in general. Kant himself seldom used the German word for "human rights" (*Menschenrechte*), and never with the meaning that the word has acquired in modern human rights discourse. Moreover, Kant never proposed a distinctive human rights theory, and it is not even clear if a fully-fledged human rights theory might be coherently gleaned from his writings on moral and political philosophy (16,17). My intention, then, is not to reject the tenability of a human rights theory from a Kantian perspective. Rather, I rely on a more mundane conception of practical reason by endorsing David Hume's dictum according to which reason is "the slave of the passions" (18, p.415). We are rational to the extent that we have a capacity to work out the best means for pursuing ends that are not themselves established or discovered by reason – that is for articulating the best strategies for the fulfilment of our needs and desires (or *passions*, as Hume calls them). Kant shares a similar conception of practical reason when he speaks of "hypothetical imperatives", that is of one's reason to act on the assumption that (hence the word "hypothetical") the action will further one's needs or desires (*inclinations* in Kant's terminology). The problem, though, is that Kant assumes that there are also "categorical imperatives", that is reasons to act regardless of one's actual sentiments, needs and desires.

My proposal in this article is thus not to show that Kant's conception of practical reason is wrong, but to show that we can make sense of the human rights discourse without committing ourselves to the assumption that, in the relevant moral situations, reason itself requires us to behave unconditionally, that is independently (and sometimes even against) *all* our actual needs, desires, sentiments or inclinations. This methodological strategy has an important implication for political philosophy and global bioethics. The prospect of justifying universal human rights at a global level on the grounds of a more mundane conception of practical reasons is more promising than the attempt to justify universal human rights on the grounds of a conception of practical reason that will not be shared by every person, or that may perhaps even be dismissed by some peoples as peculiar only to post-Enlightenment Western culture.

On the account of human rights I defend here, even the basic interest or desire I have in preserving my own life is not in itself a human right, but a reason to create and to promote, along with other human beings, institutions in the context of which this interest can become the content of a human right, as stated, for instance, in Article 3 of the Universal Declaration of Human Rights (UDHR): "Everyone has the right to life, liberty and security of person". We have human rights as the result of our collective attempt to create and to promote a variety of institutions – both at a domestic and international level – in the context of which the fulfilment of some of our most basic needs and desires may be claimed. Because human rights have to be created, protected and promoted, they can also be gradually extended to encompass some basic needs and desires that have not been addressed in previous generations of human rights. We can gradually add new items to the list of human rights and rank their relevance accordingly. As I will show later on, technological progress can play an important role in this process, especially with regards to Assisted Reproductive Technologies (ART).

THE HUMAN RIGHT TO FOUND A FAMILY AND HAVE CHILDREN

Consider the human right to found a family and have children. This right did not exist, for instance, in the 1789 *Declaration of the Rights of Man and of the Citizen*. But now this right is enshrined in several human rights documents: in Article 16 of the Universal Declaration of Human Rights (UDHR) from 1948; in Article 12 of the European Court of Human Rights (ECHR) from 1953; in Article 23 of the International Covenant on Civil and Political Rights (ICCPR) from 1966; and in Article 16 of the Proclamation of Teheran, from 13 May 1968. The human right to found a family, as a matter of course, also implies the right to have children (19, p.60). It is reasonable to assume that, prior to the publication of these declaration of rights, women and

⁴ I defended a contractarian account of human rights in this previous work.

men did already have the wish to have children and to found a family. This wish is so strong, and its implementation so fulfilling in the lives of many human beings that, in the course of the twentieth century, some declarations of rights have been established in order to empower men and women to be able to claim the fulfilment of this wish as a matter of right. This, of course, does not mean that before the publication of the relevant documents men and women could not rely on *other* moral reasons to support their claim to be able to found a family and have children without state interference. Women and men could appeal, for instance, to the legislators' compassion and generosity, or to values embedded in theological ideas such as "Be fertile and multiply" (*Genesis* 1.28).⁵ Their claim to be able to found a family and have children would still count as a moral claim, but not the sort of moral claim we might refer to as a human right.

If there were a human right to found a family and have children before the publication of the declarations of rights mentioned above, what, then, could explain its existence? How could we know that this particular human right existed without committing ourselves to the kind of fallacy Bentham calls attention to in saying that we should not take the *wish* to have a right for the right itself? Moral contractarianism explains the existence of this human right as the result of the gradual development of a system of rules in the context of which men and women may pursue the fulfilment of their basic wish to found a family and have children regardless of their religious affiliation, ethnicity or marital status.

It might be objected, though, that the account of human rights advanced here turns out to be too legalistic, for it seems to associate the emergence of a human right with the publication of legal documents. On this account, the existence of a human right seems to depend *solely* on the proclamation of a corresponding declaration of rights. However, this objection fails to take into consideration one important point, which is crucial for the contractarian account of human rights. What is at stake here is not the act of proclamation itself, or the publication of a legal document, but the dialogic process that precedes the proclamation. It is this process, rather than the proclamation, that can be understood in contractarian terms.

At a more abstract level, the dialogic process can be described in terms of a procedure by means of which individuals or a group of individuals agree to create a framework of rules that bestow on individual persons a sphere of protection against the encroachments of the state. At a less abstract level, the dialogic process may unfold, for example, as the result of long diplomatic negotiations amongst representative of states or their representatives. And the diplomatic negotiations themselves can be informed by the demands of citizens and associations of citizens who make their own claims grounded in philosophical ideas, moral sentiments, theological or metaphysical assumptions concerning natural laws or natural rights, or sheer self-interest. Moved by compassion and charity, for instance, some citizens can pressure their governments to open their borders to persons who are persecuted in their own countries, while other citizens may be less demanding in this regard and pressure their government to spend more money on the protection of fellow citizens rather than immigrants. It is a distinctive feature of the human rights discourse that, at the less abstract level, some persons will make demands on the assumption that human beings are naturally endowed with human rights or natural rights. Their justification for opening up borders, thus, will not be compassion or charity towards asylum seekers, but the assumption that asylum seekers have the relevant human rights. Maybe they are actually moved by compassion or charity but are aware that fellow citizens (or citizens of other states) may not be moved by similar sentiments, so prefer to use the human rights discourse to justify their claims at a national or international level. As a result of the dialogic process, it may be established, then, that "Everyone has the right to seek and to enjoy in other countries asylum from persecution", as stated in Article 14 of the UDHR. But before the establishment of this right, one can only *wish* – for whatever reasons – to create this right. Yet, the wish itself is not yet a right, as Bentham correctly realised in the aftermath of the French Revolution.

As a matter of course, a variety of claims may be raised in the dialogic process. But not every claim will give rise to a corresponding human right. Some claims may never become a human right, while other claims may be established as a human right only at a much later stage of the dialogic process. The claims that are put forth in the dialogic process cannot be too idiosyncratic. They must reflect some basic needs and desires that, in principle, most human beings have in common.

The contractarian account of human rights I propose here asks, firstly, the following question: which basic needs and desires can be ascribed to any human being regardless of gender, nationality, sexual orientation, age, ethnicity, etc.? Having an interest in preserving one's own bodily integrity, freedom, and private property qualify as a basic need or desire. Having an interest in founding a family and having children also qualifies as a basic human need or desire, even though many human beings may prefer not to found a family and have children. But even the individuals who do not have the desire to found a family and have children may still have the desire that *other* individuals found a family and have children, either because they will need the workforce of younger generations to provide them – directly or indirectly – with some degree of care when they themselves grow older and retire, or because humankind would be doomed to disappear if nobody had the desire to procreate.

At this juncture, it might be objected, though, that there are ways of having children and founding a family that do not involve the genetic reproduction of prospective fathers and mothers, namely by means of adoption. Given the number of children living in orphanages around the world, it might be further argued that adoption benefits more people than ART: it benefits the children who are eager to have a family; it benefits women and men who want to have one or more children in order to found a family; and in the end it also benefits society at large, as the funds for the maintenance of orphanages could be redirected, for instance, to the improvement of education and healthcare. From a strictly utilitarian point of view, therefore, there seems to be good reasons to favour adoption over ART. However, it is not clear whether utilitarianism can also justify the human right to have

⁵ For an account of fertility issues in the context of Muslim theological tradition, see (20)

children and found a family on acceptable grounds. After all, what counts for utilitarianism is not the fulfilment of the basic needs of children and grown-up men and women considered as *individuals*, but “the sum total of happiness” (21, p.194). Unlike moral contractarianism, utilitarianism does not give priority to individuals *qua* individuals, for utilitarianism focuses on “the aggregate of all persons” (21, p.211). Of course, children who live in orphanages do have a legitimate moral claim to be adopted and become part of a family. But can this moral claim be understood in terms of human rights? If there were a human right to be adopted and become part of a family, there should be a corresponding duty to adopt children. But can the state legitimately enforce this right and compel grown-up men and women to adopt children? What would it mean for a child to learn that they were adopted, not for the sake of love or compassion, but for the sake of duty, or because their parents wanted to avoid the punishment associated with the violation of their human right to be adopted? As I stressed at the outset of this article, there is no reason to reduce morality as a whole to the language of human rights. Orphan children’s legitimate moral claims to be adopted and become part of a family are grounded in corresponding virtues such as benevolence, charity, tenderness, and similar sentiments, which we may at most expect our fellow human beings to have. But we cannot force people to act out of love.

It must also be emphasised that, contrary to what many people believe, the costs of adoption can be as high as the costs of ART. As Lo and Campo-Engelstein aptly put the problem: “Although there are loans, grants, and tax credits available to lessen the cost of adoption, the financial burden of adoption is comparable to the cost of undergoing at least two ART cycles” (22, p.77). One’s human right to have children and found a family encompasses both the right to *adopt* children and the right to *reproduce*, which enables men and women to have a child genetically related to them. But sometimes, one’s right to have a child genetically related to oneself cannot be fulfilled by traditional methods of human reproduction, that is, by means of sexual intercourse. In this case, one’s right to have a child genetically related to oneself can only be fulfilled by means of ART. In this article, I focus on access to ART as a kind of human right.

For the contractarian approach to human rights, there is one reason to focus on ART rather than adoption as a means to have children and found a family. The desire to have a child genetically related to oneself seems to be an important motivation behind the basic desire to found a family. This does not entail, of course, that families with adopted children should enjoy less protection than families founded on biological kinship (23). It means only that, apparently, most human beings who decide to found a family will naturally prefer to have children who are genetically related to them over the prospect of adopting children who are not genetically related to them. It is not unreasonable to assume that evolutionary pressure may have endowed human beings with this kind of preference. Some recent studies suggest, for instance, that men’s motivations to donate their semen are often related to the desire of “spreading one’s genes” (24, p.163), or for the sake of a “pronounced desire to procreate” (25, p.424), or for “personal satisfaction” (26, p.544). In the dialogic process that underlies the emergence of the human right to found a family, “procreative motivations” (27, p.2087) will, therefore, play an important role.

The contractarian account of human rights I propose here asks, secondly, which basic human needs or desires individuals and representatives of states may consider so important and widespread that they would agree to create institutional frameworks, both at domestic and international levels, in such a way as to enable individuals to pursue the fulfilment of their basic needs or desires without state interference. Human rights exist and can only be claimed in the context of these normative frameworks. Individuals and state representatives may also agree that the fulfilment of some basic human needs and desires may require state intervention, rather than non-interference, in such a way as to provide citizens, for instance, with some degree of schooling and health care. For without these goods human beings will not be in a position to pursue the fulfilment of some of their basic needs and desires, or because education and access to health care are themselves a basic human need or desire. The contractarian account of human rights, thus, can justify the establishment of both *negative* and *positive* rights and rank them accordingly. Technological progress can also influence the way human rights are established, interpreted and ranked.

ART AND THE HUMAN RIGHT TO FOUND A FAMILY AND HAVE CHILDREN

I have suggested above that the human right to found a family entails the right to have children. But one might reject this assumption. After all, the UDHR (1948), the ECHR (1953), and the ICCPR (1966) do not mention, at least not explicitly, the right to have children. The Proclamation of Teheran (1968), on the other hand, seems to acknowledge the existence of such a right, but only implicitly: “Parents have a basic human right to determine freely and responsibly the number and the spacing of their children”. It was not until the 1990’s that human rights conventions started to mention the right to have children more explicitly, in terms of “reproductive rights”. And more recently, in 2014, the title of one document issued by the United Nations (UN) went as far as to affirm that “Reproductive rights are human rights” (28-30). As we can see, the emphasis now, in the human rights discourse, is not so much on the right to found a family, but on reproductive rights, that is one’s right to decide to generate or not to generate a child, and to be autonomous in this regard.⁶ The contractarian account of human rights can explain and justify this shift of focus – from family to reproduction – in the human rights discourse.

As the first international declarations of human rights appeared, it seemed clear that the right to found a family implicitly entailed the right to have children. But why, then, was the interest in generating children not immediately perceived as a claim that might also have the status of a human right at that stage of the dialogic process, which the contractarian account conceptualizes on a higher level of abstraction? There are at least two reasons for this. The first reason was the fear,

⁶ For a recent and comprehensive collection of essays on reproductive rights, see for instance (31).

widespread at the time, that world overpopulation could lead to catastrophic societal and environmental consequences. The same year the UN adopted the UDHR, two books that revived old Malthusian ideas were published in the United States: Fairfield Osborn's *Our Plundered Planet* (32) and William Vogt's *Road to Survival* (33). Both books became best-sellers and paved the way to other publications that highlighted the perils of an overcrowded world (34,35). Vogt went as far as to suggest that the consequences of an overpopulated planet would be on a par with the tragedy of a Third World War: "Population 'experts' say that, given time, populations will level off and stabilize themselves. To this the obvious answer is, there is not time. The modern world has gone down twice – and only extraordinary measures can keep it from going down again." (33, p.281) For Vogt, promoting birth control in the developing world seemed even more important than providing poorer countries with food and medical assistance. As he puts it:

The United States should lead in making available to all the peoples of the world the most modern information on contraception, and the services of its health and educational experts in organizing birth-control campaigns. So far as possible, these should parallel, if not surpass, the other health programs of the World Health Organization. Where FAO finds overpopulation, its conservation and food-production programs should include contraception programs. It should not ship food to keep alive ten million Indians and Chinese this year, so that fifty million may die five years hence. (33, p.281)

The comparison of world overpopulation with a world war was also implicit in the title of Paul Ehrlich's 1968 best-selling book (written with Anne Ehrlich, his wife, although the co-authorship was not credited) *The Population Bomb* (36). The book is reported to have sold over three million copies by 1990, adding fuel to international campaigns to curb birth-rate at both domestic and international level (34). An underlying idea in the neo-Malthusian literature of this epoch was the assumption that technological development in medicine and sanitation had enabled policymakers to curb the death rate. But without corresponding developments in technologies for the control of the birth rate, population growth would rapidly outstrip food supply. This idea is explicitly stated, for instance, in Warren Thompson's 1944 book *Plenty of People* (37). Arnold Toynbee summarized this idea in a speech he delivered at the UN World Food Congress in 1963: "Today mankind's future is at stake in a formidable race between population-growth and famine" (38, p.2). In this text, Toynbee also appealed to the contractarian idea of a "state of nature" in order to refer to the "unregulated reproductive Nature" that prevailed in human affairs at the time: "While we have triumphantly domesticated so many other species of living creature, we have improvidently left our own species in a state of nature in this vital matter of reproduction" (38, p.3). The UN seemed to be the right place, then, to stage the dialogic process by means of which strategies to control our reproductive nature might be devised and pursued, so as to avert a global catastrophe of biblical proportions in the future. At this stage of the social contract, though, it may have seemed "improvident" to speak of the right to found a family in terms of a right to reproduction, for reproduction itself was (wrongly) perceived as a problem to be solved, rather than as a practice to be encouraged or comprehensively protected by the state. Even at a later stage of the dialogic process, when reproductive rights were implicitly admitted in the Proclamation of Teheran, one qualification remained in place: prospective parents do have the right to determine "the number and the spacing of their children", but only as long as they generate their children "responsibly". But why should anyone be asked to exert one's human right "responsibly"? Responsibly towards whom? Their children, their fellow citizens, or towards human beings at large who will have to share their scarce supply of food with yet another human being to feed? The assumption here was that most men and women, especially in developing countries, did not have the discipline to pursue birth control (33).

I have suggested above that unrestrained human reproduction was *wrongly* perceived as a problem to be solved – or rather defused – because social policies inspired by neo-Malthusian ideas were also increasingly criticised in the 1960's and 1970's (33,34). Indeed, it later became apparent that poorer people do not have larger families because they are "irresponsible", but because in the absence of a reliable public system of social security, a vast network of relatives turns out to be the main source of care and protection when an individual grows older or becomes unable to work. Another, more recent reason to reject neo-Malthusian anxieties about overpopulation is the discovery that world population is, actually, expected to decrease by the middle of the twenty-first century. Indeed, some countries are now facing both an aging population and population decline, and this is generating associated concerns about losing the tax base (workers) needed to fund social programs. This trend, though, is not limited to richer countries, but affects most developing countries as well (35,39,40).

The other reason for the emergence of reproductive rights only at a later stage of dialogic process is this: when the first international declarations of human rights appeared, they did not have to mention reproductive rights because the parties to the contract shared the assumption that in order to found a family you have to have two consenting parties, namely a woman and a man, and that it takes a woman and a man to generate a child. But social changes related to same-sex unions and developments in ART gradually contributed to challenges to this assumption. The debate on the decriminalization of homosexuality became a matter of philosophical inquiry and public engagement in the 1960's (41). And early in 1990's, the fight against discrimination towards homosexual individuals started to be considered a human rights issue (42). Later, many countries legalized civil partnerships and same-sex marriage. There emerged the question, then, as to whether same-sex couples were entitled to found a family and have children on equal grounds of treatment and opportunities with heterosexual couples (23).

Consider, for instance, the practice of "shared motherhood", also known as ROPA (Reception of Oocytes from Partner), "partner assisted reproduction", "reciprocal IVF", or "inter-spousal egg donation" (43). This procedure enables clinicians to use IVF to fertilize the egg cell of one woman with the semen of a donor and then transfer the fertilized egg cell into the womb of another woman, her partner. The two women, in different stages of their lives, may have had the desire to become a mother

so as to found a family. But the idea of “shared motherhood” could not have occurred to them before the emergence of the IVF procedure and the proliferation of fertility clinics and sperm banks around the world. IVF is for them, then, a means to implement their right to found a family and have children. Yet, in many countries, even where same-sex marriage has become legal, same-sex female couples have been denied the right to use ART for the purpose of having children. Sometimes their right to use ART in order to have children is not denied, but employers or health insurance companies will not cover the costs of IVF treatments in fertility clinics based on the argument that there is not a fertility issue to be treated (22,44,45).

In this scenario, the women cannot simply claim their human right to found a family and have children because legislators and policy makers may reply (cynically or not) that their right to found a family – as the right has been established, for instance, in the UDHR, in the ECHR, or in the ICCPR – is not being violated. The two women do already constitute a family, but it is *their* fault that the kind of family they have decided to found is intrinsically non-reproductive. This allegation implicitly dissociates the human right to found a family from the right to generate children. Legislators and policy makers might further reply (cynically or not) that the right to have children has not been denied to the female couple. The two women can still have children, if they would only decide to found a family with a man rather than with another woman.

However, it is hard to reconcile this kind of reply with the human right not to be discriminated against on the grounds of sexual orientation, which has also been established as a human right in several documents over the last thirty years (46). After all, if heterosexual couples have the right to found a family and have children through access to ART – either because the state does not prevent the couples from using ART (a negative right) or because the state itself provides access to ART (a positive right) – why should same-sex couples be treated differently?

In the dialogic process that underlies the emergence of human rights, nobody would assent to the creation unequal treatment that would put oneself in a disadvantageous or submissive position relative to other individuals. And to the extent that one is put in a submissive position, one cannot be seen as an autonomous agent. This is not the same as affirming, though, that human beings have a natural or basic desire to be treated with fairness, or to be seen as autonomous agents.⁷ Indeed, it might rather be the case that human beings have a natural or basic desire to be treated *unequally*, that is in such a way that every individual would naturally prefer to receive more benefits than other individuals. Let us call this supposition the Hobbesian conception of human nature. Now, nobody would endorse the creation of such privileges in the dialogic process that the contractarian approach tries to conceptualize on a higher level of abstraction. For this might put oneself in a disadvantageous or submissive position relative to other individuals. The contractarian approach I propose here does not have to endorse a Hobbesian conception of human nature, but neither does it have to assume that human beings have a natural or basic desire for fair treatment, or to be seen as autonomous agents.⁸ The moral claim for fair treatment, thus, can also be accounted for on contractarian grounds. Let us suppose, then, that a woman is fertile, but her husband has oligospermia (low sperm count). It would be unfair to tell her that she does have the right to found a family and have children, but she will have to find another man (one with higher sperm count) to implement that right. In like manner, it is unfair to tell a woman in a same-sex couple that she has, indeed, the right to found a family and have children, but that she will have to find another person (a man, and preferably one with normal sperm count) to implement that right (22).

Recent developments in ART now cast doubt on the assumption that same-sex couples are unavoidably non-reproductive. In a recent discussion on the institutionalization of shared motherhood in Spain, Elixabete Imaz argued that ART made women in same-sex relationships aware of their own reproductive capacities as a couple: “Most lesbian women assumed that their relationships were not reproductive and, consequently, their plans did not include motherhood” (43). Because same-sex female couples assumed (quite reasonably at the time) that they were non-reproductive as a couple, they could not have reasonably brought forth their basic desire to found a family and have children in the dialogic process that preceded the establishment the human rights listed in the UDHR, in the ECHR, or in the ICCPR. But now the prospect of using ART to fulfil that desire must be taken into consideration as well. Further developments in ART will render the assumption that same-sex couples are unavoidably non-reproductive even more problematic.

Consider for instance the prospect of using IVG (In Vitro Gametogenesis) for the generation of human beings in the future, assuming, of course, that the procedure will be available on ethically and legally acceptable grounds. Gametes (reproductive cells) can be obtained in vitro both from “embryonic stem cells” (ESCs) and, more recently, from somatic cells that have been treated to behave as embryonic stem cells, known as “induced Pluripotent Stem Cells” (iPSCs). ESCs and iPSCs can differentiate into practically any kind of specialized cells, including sperm cells and egg cells (52-56). The use of either ESCs or iPSCs to obtain reproductive cells is known as IVG or sometimes also as “in vitro generated gametes”, “artificial gametes”, or “synthetic gametes” (54-55,57-62). In 2016, Japanese researchers managed to produce iPSCs from the skin of mice. The iPSCs were then treated to differentiate into reproductive cells that led to the birth of healthy, fertile mice (63).

It has been speculated that, in the future, instead of retrieving the egg cells from the ovaries, clinicians will be able to use somatic cells (skin cells for example) of men or women to produce iPSCs that, in turn, will be used to produce human sperm cells or egg cells (52,54-62). The use of IVG for the purpose of human reproduction would make IVF less invasive for women.

⁷ One reason for the suggestion that human beings, possibly, do not have a natural or intrinsic desire to be seen as autonomous agents is that the word “autonomous”, as well as its cognates in other European languages, was originally used to refer to cities and citadels that were in a position to give themselves their own laws, that is they were not subjected to the commands of another city or citadel. It was not until Kant, towards the end of eighteenth century, that the word “autonomous” started to be used in its ethical rather than political sense, that is as a property of persons rather than political bodies (47).

⁸ For a recent defence of the Hobbesian comprehension of human nature, see for instance (50).

IVG could also enable two women to generate a genetically related child without their having to resort to a sperm donor. (Because women have chromosomes XX, IVG could only enable them to have daughters). And two men, too, could have a child genetically related to them. (Two men could have either a son or a daughter, but they will have to rely on a surrogate mother for the gestation of their child). In this scenario, it is reasonable to assume that individuals in same-sex relationships, as legitimate parts in the dialogic process by means of which human rights are established, protected, and promoted – a process that the contractarian approach attempts to conceptualize at a level of abstraction that departs from the actual political and legal procedures that give rise to declarations of human rights – will claim their access to new ART as a matter of human right. New forms of ART will be, for them, the only way to fulfil their basic desire to found a family and have children on equal grounds with heterosexual couples. In this scenario, reproductive rights will be ranked even higher, in the human rights discourse, than they have been thus far.

CONCLUSION

Reproductive rights have become of paramount importance over the last years, even more important than the right to found a family, because ART have evolved faster than societal values and linguistic conventions. From the point of view of individuals who have decided to use current forms of ART in the attempt to found a family, or who may possibly decide to use IVG in the future, the most important thing is not to convince other people that a broader, more inclusive conception of family and parenthood should be socially embraced and legally protected. This might require more time than they actually have to generate a child and, thus, to found a family in line with their own understanding of what counts, and what does not, as a family. From their point of view, the most important thing is, rather, to claim their human right to generate a child genetically related to them. Whether or not the fulfilment of their wish to have a child of their own (i.e., genetically related to them) also amounts to “founding a family” becomes a matter of linguistic convention and legal interpretation. ART now enable same-sex couples, or single women and men, to generate a child of their own, even if the words “family” and “parenthood” may sometimes still sound socially inappropriate, or legally inadequate, to refer to the affective bonds, mutual duties, and legal rights that will unite them as a *group* – that is that kind of “natural and fundamental group unit of society” that has been granted protection in a variety of human rights documents.⁹

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⁹ See for instance Article 16 of the UDHR “The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.”

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REFERENCES

1. Griffin J. *On Human Rights*. Oxford: Oxford University Press, 2008.
2. Skinner Q. *Modernity and disenchantment*. In: Tully J, ed. *Philosophy in an Age of Pluralism: The Philosophy of Charles Taylor in Question*. Cambridge: Cambridge University Press; 1994.
3. Harrison R. *Bentham (Argument of the Philosophers)*. London: Routledge; 1999.
4. MacIntyre A. *After Virtue: A Study in Moral Theory*. Indiana: University of Notre Dame Press; 1981.
5. Kant I. [Reflexionen zur Moralphilosophie](#). In: Akademieausgabe von Immanuel Kants Gesammelten Werken. Berlin: Preussische Akademie der Wissenschaften, vol. 19, p. 145 [Frag. 6736].
6. Bentham J. *Pannomial fragments*. In: Bowring J, ed. *The Works of Jeremy Bentham*. Vol. 3. New York: Russell & Russell; 1962.
7. Bentham J. *Anarchical fallacies*. In: Waldron J, ed. *Nonsense upon Stilts: Bentham, Burke and Marx on the Rights of the Man*. London: Methuen; 1987. p. 29-76.
8. Cruft R, Liao M, Renzo M. *The philosophical foundations of human rights: An overview*. In: Cruft R, Liao M, Renzo M, eds. *Philosophical Foundations of Human Rights*. Oxford: Oxford University Press; 2015. p. 1-41.
9. Sen A. [Human rights and capabilities](#). *Journal of Human Development*. 2005;6(2):151-166.
10. Searle J. *Human rights*. In: *Making the Social World: The Structure of Human Civilization*. Oxford: Oxford University Press; 2010. p. 174-198.
11. Schofield P. *A defence of Jeremy Bentham's critique of natural rights*. In: *Bentham's Theory of Law and Public Opinion*. Cambridge: Cambridge University Press; 2014. p. 208-230.
12. Gauthier D. *Morals by Agreement*. Oxford: Oxford University Press; 1986.
13. Stemmer P. *Handeln zugunsten anderer: Eine moralphilosophische Untersuchung*. Berlin: De Gruyter; 2000.
14. Murray M. *Morals and Consent. Contractarian Solutions to Ethical Woes*. Montreal: McGill-Queens University Press; 2017.
15. Araujo M. *Kontraktualismus*. In: Lohmann G, Pollmann A, eds. *Menschenrechte: Ein interdisziplinäres Handbuch*. Stuttgart: Metzler; 2012. p. 193-198.
16. Sangiovanni A. *Why there cannot be a truly Kantian theory of human rights*. In: Cruft R, Liao M, Renzo M, eds. *Philosophical Foundations of Human Rights*. Oxford: Oxford University Press, 2015, p. 671-689.
17. Höffe O. *Das angeborene Recht ist nur ein einziges. Hat Kant eine Philosophie der Menschenrechte?* In: Mosayebi R, ed. *Kant und Menschenrechte*. Berlin: De Gruyter; 2018. p. 37-48.
18. Hume D. *A Treatise of Human Nature*. Selby-Bigge LA, ed. Oxford: Clarendon Press; 1988.
19. McGuinness S, Widdows H. *Access to basic reproductive rights: global challenges*. In: Francis L, ed. *The Oxford Handbook of Reproductive Ethics*. Oxford: Oxford University Press; 2017. p. 58-77.
20. Chaudhry AS. *Unlikely motherhood in the Qur'an: oncofertility as devotion*. In: Woodruff T, Zoloth L, Campo-Engelstein L, Rodriguez S, eds. *Oncofertility. Cancer Treatment and Research*, Vol. 156. Boston: Springer; 2010. p. 287-294.
21. Mill JS. *Utilitarianism*. In: *Utilitarianism and On Liberty*. (Edited with an Introduction by Mary Warnock). Oxford: Blackwell; 2003.
22. Lo W, Campo-Engelstein L. *Expanding the clinical definition of infertility to include socially infertile individuals and couples*. In: Campo-Engelstein L, Burcher P, eds. *Reproductive Ethics II*. Cham (Switzerland): Springer; 2018. p. 71-83.
23. Almond B. *New reproductive technologies: Whose human rights?* In: *The Fragmenting Family*. Oxford: Clarendon Press; 2006. p. 98-120.
24. Mohr S. [Beyond motivation: on what it means to be a sperm donor in Denmark](#). *Anthropology & Medicine*. 2014;21(2):162-173.
25. Woestenburg NM, Winter HB, Janssens PW. [What motivates men to offer sperm donation via the internet?](#) *Psychology, Health & Medicine*. 2016;21(4):424-430.
26. Thijssen A, Provoost V, Vandormael E, et al. [Motivations and attitudes of candidate sperm donors in Belgium](#). *Fertility and Sterility*. 2017;108(3):539-547.
27. Freeman T, Jadva V, Tranfield E, Golombok S. [Online sperm donation: a survey of the demographic characteristics, motivations, preferences and experiences of sperm donors on a connection website](#). *Human Reproduction*. 2016;31(9):2082-2089.
28. United Nations. [The 1994 International Conference on Population and Development \(ICPD\)](#). 20th Anniversary Edition, 2014.

29. United Nations. [Beijing Declaration and Platform for Action](#). The Fourth World Conference on Women. Beijing, 4-15 September 1995.
30. United Nations. [Reproductive Rights are Human Rights: A Handbook for National Human Rights Institutions](#). HR/PUB/14/6; 2014.
31. Francis L, ed. The Oxford Handbook of Reproductive Ethics. Oxford: Oxford University Press; 2017.
32. Osborn F. Our Plundered Planet. Boston: Little, Brown and Company; 1948.
33. Vogt W. Road to Survival. New York: William Sloane Associates; 1948.
34. Desrochers P, Hoffbauer C. [The post war intellectual roots of the Population Bomb. Fairfield Osborn's Our Plundered Planet and William Vogt's Road to Survival in retrospect](#). Electronic Journal of Sustainable Development. 2009;1(3):38-61.
35. Grimes S. [From population control to 'reproductive rights': Ideological influences in population](#). Third World Quarterly. 1998;(19)3:375-39.
36. Ehrlich P. The Population Bomb. New York: Ballantine Books; 1968.
37. [Population Growth. Plenty of People, by Warren S. Thopson \(book review\)](#). Nature. 1944;154:721-722.
38. Toynbee, Arnold. Man and hunger: The perspectives of history. Report of the World Food Congress, Washington, D.C., 4-18 June 1963, vol. 2: [Major Addresses and Speeches](#); United Nations, FAO, ed. 1963.
39. Bricker D, Ibbitson J. Empty Planet: The Shock of Global Population Decline. Oxford: Signal; 2019.
40. [Thanks to education, global fertility could fall faster than expected. The world's population in 2100 could be no higher than it is today](#). The Economist. 2 February 2019.
41. Hart HLA. Law, Liberty, and Morality. Stanford: Stanford University Press; 1963.
42. United Nations (Human Rights Committee). [Toonen v. Australia, Communication No. 488/1992, U.N. Doc CCPR/C/50/D/488/1992](#); 1994.
43. Imaz E. [Same-sex parenting, assisted reproduction and gender asymmetry: reflecting on the differential effects of legislation on gay and lesbian family formation in Spain](#). Reproductive Biomedicine & Society Online. 2017;4:5-12.
44. Sussman AL. [The case for redefining infertility. Proponents of 'social infertility' ask: What if it's your biography, rather than your body, that prevents you from having a child?](#) The New Yorker. 18 June 2019.
45. Cauterucci C. [Four New Jersey lesbians sue over preposterous rule that delays their fertility coverage](#). Slate, 11 August 2016.
46. United Nations (Human Rights Council). [Report on Discriminatory laws and practices and acts of violence against individuals based on their sexual orientation and gender identity](#). UN Human Rights Council; 17 November 2011.
47. Schneewind JB. The Invention of Autonomy: A History of Modern Moral Philosophy. Cambridge: Cambridge University Press; 1998.
48. Hill TE. The Kantian conception of autonomy. In: Christman J, ed. The inner Citadel: Essays on Individual Autonomy. Oxford: Oxford University Press; 1989. p. 91-105.
49. Araujo M. Scepticism, Freedom, and Autonomy: A Study of the Moral Foundations of Descartes' Theory of Knowledge. New York: De Gruyter; 2003.
50. Pinker S. The Better Angels of our Nature: Why Violence has Declined. New York: Viking Books; 2011.
51. Gómez J, Verdú M, González-Megías A, Méndez M. [The phylogenetic roots of human lethal violence](#). Nature. 2016;538:233-237.
52. Palacios-González C, Harris J, Testa G. [Multiplex parenting: IVG and the generations to come](#). Journal of Medical Ethics. 2014;40:752-758.
53. Cohen IG, Daley GQ, Adashi EY. [Disruptive reproductive technologies](#). Science Translational Medicine. 2017;9(372):1-3.
54. Smajdor A, Cutas D. [Background paper: Artificial gametes](#). London: Nuffield Council on Bioethics; December 2015.
55. Suter SM. [In vitro gametogenesis: just another way to have a baby?](#) Journal of Law and the Biosciences. 2016;3(1):87-119.
56. Greely H. The End of Sex and the Future of Human Reproduction. Cambridge (Mass.): Harvard University Press; 2016.
57. Di C, Gell J, Tao Y, et al. [Modeling human infertility with pluripotent stem cells](#). Stem Cell Research. 2017;21:187-192.
58. Fang F, Li Z, Zhao Q, et al. [Human induced pluripotent stem cells and male infertility: an overview of current progress and perspectives](#). Human Reproduction. 2018;33(2):188-195.
59. Hendriks S, Dancet EF, van Pelt AM, et al. [Artificial gametes: a systematic review of biological progress towards clinical application](#). Human Reproduction Update. 2015; 21(3):285-296.
60. Hendriks S, Dondorp W, de Wert Guido, et al. [Potential consequences of clinical application of artificial gametes: a systematic review of stakeholder views](#). Human Reproduction Update. 2015;21(3):297-309.
61. Newson AJ, Smajdor AC. [Artificial gametes: new paths to parenthood?](#) Journal of Medical Ethics. 2005;31(3):184-186.
62. Smajdor A, Cutas D. [Artificial gametes and the ethics of unwitting parenthood](#). Journal of Medical Ethics. 2014;40:748-751.
63. Cyranoski D. [Mouse eggs made from skin cells in a dish. Breakthrough raises call for debate over prospect of artificial human eggs](#). Nature. 2016;538(301).