Social Acceptance of Ethically Controversed Innovative Techniques Related to or Derived from Assisted Reproductive Technologies – A Review of Literature

Alexandra HUIDU¹

¹ PhD Student, Doctoral School of Sociology, University of Oradea, Oradea, Romania

Co-coordination with University of Medicine and Pharmacy Grigore T. Popa from Iași, Romania

LUMEN Research Center in Social and Humanistic Sciences, Iași, Romania

andra_huidu@yahoo.com.

Abstract: In vitro fertilization (IVF) is the most widely known assisted reproductive technique (ART). Due to IVF, a number of medical practices have emerged, such as surrogate motherhood or cryopreservation of human embryos, which gives the possibility to have children not only to infertile heterosexual couples at the normal age of procreation, but also to homosexual or lesbian couples or to people who are past the biological age when they could naturally procreate. IVF makes it possible to create embryos outside the human body, and therefore opens the door for the possibility of physical and moral augmentation of the future child prior to implanting the embryo in uterus, as well as for embryonic stem cell research, in order to find the causality of diseases and treat them, but also for experiments that today do not seem so futuristic anymore, such as creating human-animal chimeras or hybrids, or cloning. This article aims to analyze the relevant literature on the mechanism of achieving social acceptability for these controversial techniques.

Keywords: *social acceptance; assisted reproductive technologies; social contagion; social construction of reproductive behavior; communicative action in ART; literature review.*

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Introduction

The social acceptability of techniques related to or derived from ART, in other words biotechnologies and futuristic reproductive techniques (like cloning or chimerization), or the status of the human embryo (the moment of the beginnings of life, viewed from the perspective of ethical issues regarding research on embryonic stem cells) have been the subject of few studies in international literature. Relatively common techniques that have lost their futuristic character (such as in vitro fertilization) have been the subject of some sociological research (Bharadwaj, 2008; Heitman, 1999; McNeil, 1990; Roberts, 2008), but the innovative technologies listed above have not received the same attention, perhaps because some are still experimental or merely in the research stage, and others are still not being used on such a large scale as IVF.

In most cases, the social acceptability of these techniques, as a topic of discussion, is overlaid on already traditional debates (such as abortion, the arguments in the field of abortion being also raised in the discussion on the protection of the right to life of the human embryo, although the context of the discussion is fundamentally different) or is lost through the plethora of bioethical or legal controversies surrounding each of these techniques.

The limits of certain debates - already existing in the literature – in the field of the social acceptability of techniques related to or derived from ART

Social acceptability in the field of techniques related to or derived from ART must be at least partially, as a subject of study, separated from the debates on abortion, the right to marriage or adoption of homosexual couples, the bioethical discourse on the risk-benefit balance of new human biomedical-reproductive technologies, the human rights arguments related to the dignity of the human being, the preservation of the genetic heritage of humanity, the content and limits of reproductive rights etc., because social acceptability aims at deciphering the particularities of the phenomenon consisting of the fact that these techniques are being used in society regardless of all controversy, as well as the factors influencing social adherence or rejection of all or some arguments and counter-arguments presented above.

1. Ethical debates on abortion and their degree of applicability in the matter of destruction of surplus embryos after in vitro fertilization

While it may be argued that when discussing the right to life of the human embryo, the arguments regarding the social acceptability of abortion and the destruction of surplus embryos after IVF (either directly or as a result of their use as a source of cells in stem cell research) are the same, in reality, the distinctions are major. While in the debate about abortion, the main issue focuses on the mother's right to self-determination over her body, excluding any decision from the father to prevent or cause abortion (Hewson, 2001; Roxburgh, 2008), when embryos are created outside the human body, both parents have equal rights over the fate of the embryos (Grady, 2008; Fuscaldo, Russell, & Gillam, 2007; Smajor, 2007).

So, if in the debate about abortion, what primarily matters is the abovementioned right of the mother to decide what medical procedure will be done over her own body and that takes precedence over the right to life of the embryo, in the case of surplus embryos, it is the question of definitively settling the moment from which life begins that must be answered in the first place (and, implicitly, the moment when the legal protection of the right to life begins). At the social level, it must be verified - before concluding that the two situations are the same - whether the parameters of acceptability or unacceptability of embryo destruction remain the same in the case of abortion and IVF, and what are the factors influencing possible variations. For example, a factor that may be inclined to imbalance similarities, in the case of IVF, is taking into consideration the choice of men, given that in the case of abortion the rate of abortions performed is a mirror of an option that ultimately belongs exclusively to women, irrespective of the arguments men could bring to try and influence them in one direction or another), while in IVF men have direct control and power of decision over embryos.

2. Right to marriage and reproductive rights of homosexual couples – closing the debate or relaunching it in other parameters?

Moving ahead, and in remembrance of virulent debates in the literature on the recognition (or not) of marriage and adoption rights of homosexual couples, with all the arguments and counter-arguments relating to the risks inherent to the influence that the exposure of the child to homosexual or lesbian behavior may lead to gender identity issues of the future adult (Diaz, 2015; McCutcheon & Morrison, 2014; Schumm, 2010), we stipulate that all of the above seem to have become completely

inconsequential with the occurrence of in vitro fertilization, correlated with ova donation and surrogate motherhood, which means that, in the absence of any sexual intercourse, a man can have a child, which he can later care for together with his same-sex partner, regardless of whether the law recognizes them as a family or not (and by using genetic engineering, the child may also have genetic material from both men). If we are to take solo reproduction into consideration (Cook, 2008; Cutaş, 2004; Cutaş & Smajor, 2016), in which case the man would no longer need an egg donor, then the debate is selfconcluding, and all that remains to be discussed is the degree of social acceptance of such families / children.

Therefore, the issue of today's society is no longer, as in the case of adoption, whether it is better for society to allow the adoption of orphaned children by homosexual families, so they have a possible family in which to develop socially harmonious, rather than forbid adoptions and thus increase the number of social assistance beneficiaries, with less theoretical chances to integrate into society than those raised in families, but exposing to the risk of generating forms of mass sexual deviance (according to the theories set forth in the previously cited works), but the problem is whether families and children from homosexual families, who are already a social reality due to new reproductive technologies, will be accepted by a society that has not even answered the first of the two questions.

3. The discrepancy between accepting bioethical, legal and human rights discourse and the influence of emotions on social acceptability

With regard to the bioethical, legal and human rights arguments related to the risk-benefit ratio in the application of new reproductive and biomedical technologies (Douglas & Savulescu, 2010; Fenton, 2009; Persson & Savulescu, 2008; Saulter, 2014; Scripcaru, Ciucă, Scripcaru, & Isac, 2005), to the limits of reproductive rights (Falasco, 2005; Pachman, 2003; Siek, 1998), to human dignity (Frankel & Chapman, 2000; Fukuyama, 2004: 160; Koepsel, 2007), and to the preservation of the genetic heritage of humanity (Rifkin, 1991; Rolston, 2002), we show that while ethicists, law experts and physicians are still debating, social practices are more and more frequent and precede the debates, which appear to be endless. Also, we must also take into consideration the theories at the boundary between sociology and philosophy - the theory of procreative beneficence elaborated by Julian Savulescu (2001) - sociology and law - John A. Robertson's theory on reproductive autonomy (1983, 1996) and a series of theories specific to Christian bioethics (Alvarare, 2002; Cohen, 2002; Fadel, 2002; Iftime, 2011), medical bioethics (Astărăstoae, Loue, & Ioan, 2009; Frunză, Demeny,

Sandu, & Ioan, 2013; Gramma et al. , 2013), legal bioethics and human rights (Moroianu Zlătescu, 2006; Pivniceru & Dăscălescu, 2007; Scripcaru, Ciucă, Astărăstoae, & Scripcaru, 1998).

Although from an ethical standpoint, there seems to be a social consensus on the need to prudently apply innovative medical techniques to human beings, the question arises as to why, as soon as a technique is available, there are many who use it, moving away from principles with which they formally agreed to in the past. One possible explanation would be that the degree of social acceptability of ART-related techniques varies depending on how the individual relates to these techniques, and the acceptability fluctuates according to the level of emotional implication we refer to: the macro level (the level of ethical principality, when the individual is emotionally detached, therefore more inflexible in accepting controversial medical techniques), the mezo level (the situation where the individual appreciates the ethical acceptability of new reproductive technologies by reference to the need to use these techniques manifested by their family members or close friends - when the degree of affective involvement of the individual increases, and so does the degree of acceptance) and the micro level (when the individual has to / would need to use one or more of the ART related techniques, when the degree of emotional involvement of the individual is maximum, and acceptance is also maximum).

Landmarks in international literature or approaches to a focus-based analysis

1. Towards a sociology of reproduction

Although there are numerous studies in the international scientific literature on the social acceptability of various reproductive practices (from adoption to abortion), as we have seen above, and about in vitro fertilization and surrogacy there have also been numerous studies (and we use the term extensive by reference to the short period of time since they have become common practices), the vast majority are developed based on research objectives and research methods specific to the field of study of psychology, sometimes social psychology, as a border area between psychology and sociology. These studies usually address the subject of the way couples psychologically cope with the side effects of medical procedures, the treatment process and the failure of IVF cycles, the psychological effect on children of the fact that they do not know their biological parents - in case of children conceived with donor gametes), that they have been conceived outside the human body, and how it affects its existence the fact that they

have "cryopreserved" brothers and sisters, the quality of parenting etc. (Colpin, 2002; Golombok, Cook, Bish, & Murray, 1995; Golombok, Murray, Brindsen, & Abdalla, 1999; Verhaak et al., 2007).

We noticed that there are few studies to address the concept of social acceptability from a predominantly sociological perspective, although a distinct branch of sociology is now emerging in international literature, which has been called the sociology of reproduction (Social Science Bites, 2013), the Cambridge University being the REPROSOC host, a study group dealing with reproduction sociology (University of Cambridge, n.d.), a domain of sociology which, through these approaches, seems to distance itself from the wider area of the sociology of medicine or the sociology of the family, common branches of the same science, from which the sociology of reproduction borrows many elements, but also adding a number of new, specific ones.

2. From the sociology of reproduction to arguments for a specific methodology

Even when social issues are addressed in the literature, they are rather formulated as "social concerns" or descriptions of social behaviors (Baldwin, 2012; Wymelenberg, 1990), followed by a description of the reactions and counter-responses to these behaviors, but these studies are not sociological research per se, as they do not measure, through qualitative or quantitative methods specific to sociology, the degree of social acceptability of certain techniques and the factors that change the degree of acceptability.

As far as the sociological aspects about modern medical techniques in general are concerned, we mention that there are a number of studies that take into account the notion of social acceptability, but they predominantly address the issues of the acceptability of public policies in the field of public health (Cohn, 2015), or well known social phenomena like suicide (Stack & Kposowa, 2016) or research on human subjects (Parry, Pino, Faull, & Feathers, 2016).

We also identified a series of studies aimed at defining the concept of social acceptability in the field of ART (Branson, Duffy, & Perry, 2012; Brock, Sarason, Sanghvi, & Gurung, 1998; Mohr & Koch, 2016; "Religion and Social", n.d.), but with very few exceptions (Guo, Yin, & Tian, 2016; Hope & Rombatus, 2010), the vast majority (Brezina & Zhao, 2012; Edwards 1993; Fasoulitis & Schenker 1999; Liu & Rose, 1996; Sharp et al., 2010) are limited to assessing the theoretically (hypothetically) potential social impact that the bioethics controversies in the field of new reproductive technologies might have at a social level. What is found in all these papers, however, is the highlighting of some recurrent elements that

are also factors that seem to influence the acceptance or rejection, at the social level, of ART and its related techniques.

Among these factors are, mainly, due to their frequent recurrence in the speech of infertile patients, religious beliefs, education level, living conditions (financial well-being), and the impact of media coverage on ART subjects. Although these seem to be the major factors influencing social acceptability of ART-related techniques, what we have noticed is that the argumentative discourse in the above-mentioned papers focuses on a main idea, namely the legitimate desire expressed by infertile persons to have a child, which translates into the urgent need for medical treatment.

Forming social acceptability - traditional sociological theories and their applicability to revolutionary medical techniques

The way social acceptability is formed and the factors that influence its fluctuations can be explained by a series of theories set forth in the literature, in order to see to what extent we can say (or not) that in certain, particular situations, social acceptability is an element dependent on a stimulus-contagion mechanism, whether acceptability is a feeling that may or may not be induced by ethical discourse, or by promoting certain behaviors that would cause individuals to move away from traditional values and guide themselves by innovative norms set forth by the social group they are part of, according to the theory of social contagion formulated by LeBon (2009).

The analysis could then be extended to determine to what extent this contagion, at a conceptual level, creates the premise of behavioral contagion, as described by Blumer (1993), in other words, if the interaction between the members of a society can cause changes in their tendency to reject or accept new reproductive technologies. Remaining in the sphere of sociological theories that are based on the idea of social contagion, it is also of interest to what extent the social acceptability of the ART-related techniques can be explained by the way individuals create norms and guide their behaviours accordingly, by applying the theory the emergence of laws formulated by Turner (1987), but using this theory exclusively in order to explain the emergence of ethical norms governing social behaviors.

Another perspective on acceptability can be highlighted if we assume the premises that acceptability, as a concept, is a social construction based on a mix of morality, ethics, traditionalism and openness to innovation, as explained by the theory of social construction of reality formulated by Berger and Luckman (1966) regarding the way in which individuals transform or maintain their own subjective perception of reality under the impact of social interaction with other individuals (as we have shown above,

by analyzing three levels, micro, mezo and macro, depending on the emotional involvement of individuals), that can affect their behavioral identity to the point where some behaviors become acceptable, even if initially they were totally unacceptable or hard to accept.

Starting from here, some of the factors influencing social acceptability can be examined, namely to what extent the religious and media discourse changes the degree of social acceptance of ART-related techniques, since, based on the theory of Habermas' communicative action (1973), a conservative, reserved, or vehemently negativist discourse is supposed to negatively affect the degree of acceptability, while a balanced, reasonable and ethically sustainable discourse can increase acceptability.

Conclusions

The medical acceptability of risks associated to a procedure, the psychological acceptability of the status of being a patient that has turned to ART-related or ART-derived techniques, the bioethical acceptability and legal acceptability, manifested through public, scientific discourses, sometimes marked by religious influences, or by belonging to a social group like sexual minorities, or to an ideological movement such as the feminist movement, for example, all come to outline and impulse the factors that influence the fluctuations of social acceptability, but they should not be confused with social acceptability per se. Measuring the social acceptability of a phenomenon at the boundary between multiple disciplines of science is more complex, but addressing a specific methodology is what implicitly dictates in which research category these studies fall in.

The social phenomenon is measured by sociological studies, which, in the case of controversial medical techniques, is aimed in two directions: first of all awareness and only then the degree of social acceptability. Establishing awareness requires to determine whether a social group is aware of the availability of new reproductive technologies and the possibility that these technologies offer to infertile people, eventually by resorting even to certain practices less common and that are related to or derived from basic ART (in vitro fertilization and, hence, gamete donation, surrogacy, cryopreservation of embryos, genetic engineering of embryos - for medical or non-medical purposes -, creation of chimeric or hybrid embryos, donation of surplus embryos after IVF for stem cell research, posthumous reproduction, reproduction before birth).

The degree of awareness is very important in determining social acceptability, because a superficial awareness (the situation in which members of society only hear about the existence of certain techniques, but

do not know details about them) will not lead to a critical ethical reasoning, as it may be determined by a degree of deep awareness (where individuals would know both the benefits and the risks involved in a particular medical procedure). At the base of acceptability lies precisely the balance that the individuals reach between their need for reproduction and their need to respect the ethical axes at the bases of their own existence.

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