

# Sociological Ambivalence in Reproduction: Natural Childbirth and Technological Conception

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## Abstract

Procreative choices and discourses in contemporary society are steered by the insistence on nature and the trust in biomedical technologies. Whilst biomedical technologies are increasingly used in conception, the critique of medicalisation in childbirth is a matter of collective sensitivity. Through the theory of sociological ambivalence, this study sheds lights on the strategies adopted by childbirth professionals to cope with the nature/technique polarity. Results of a qualitative study conducted with midwives, doulas and trainers in Italy are presented.

Keywords: assisted reproductive technology, natural childbirth, women's autonomy.

## 1. Introduction

Over the last century, procreation has been affected by a process of rationalization; this has led to increased possibilities of planning and intervention in bodily processes traditionally considered unavailable to the human will (Corradi, 2023; Habermas, 2003; Viviani, 2019; Yonnet, 2005). This process initially involved the management of childbirth and pregnancy (Davis-Floyd, 1992), and later spread into conception, an area in which biotechnology nowadays intervenes with increasing sophistication (Kaur, 2023).

Medical and technical intervention has become the social norm of childbirth: it is commonly accepted that, to be considered safe, this event requires medical supervision (Liese et al., 2021; Pizzini, 2001). In Italy, 88.2% of births take place in public and equivalent healthcare facilities (Ministry of

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Health, 2021) and medicalization rates are among the highest in Europe.<sup>1</sup> For a long time, the iatrogenic effects on women and newborns' health (Illich, 1995; Liese et al., 2021) produced by the biomedical model of birth has been a matter of concern for social movements, academics and medical authorities (WHO 1985a,b):<sup>2</sup> since the 1970s groups of women in Western countries (Katz Rothman, 2016) have questioned mass hospitalization and replacement of midwives with ob-gyns as principal professional reference in childbirth (Brodsky, 2008; Spina, 2009): they have studied the physiology of childbirth and found the so-called “new midwifery”, a model based on continuity of care, non-interventionism and integration of traditional knowledge with a moderate use of biomedical technique (MacDonald, 2001; Schmid, 1992). The proposed model, later legitimized also by the World Health Organization (WHO), has only been partially implemented in Italy, and in the last 30 years hospital facilities have adopted some measures to promote the humanization of childbirth assistance (De Sanctis et al., 2020; Perrotta, 2009).<sup>3</sup>

The search for natural birth unaffected or partly affected by external interventions - if not explicitly requested by the woman - is still the objective of a transnational social movement (Cramer, 2021), as well as a value widely shared by contemporary women (De Vries et al., 2001; Phipps, 2014); there is also an increased interest in domiciliary care provided by independent midwives and doulas<sup>4</sup> during labor, delivery and post-partum (Davis-Floyd & Gutschow,

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<sup>1</sup> Only 9.4 percent of women stick to the 3 ultrasounds recommended by the WHO; C-section is undertaken in 38 percent of births; the lithotomy position, induction with oxytocin and episiotomy are still routine practices (De Sanctis et al., 2020; Donati et al., 2005; Quattrocchi, 2014).

<sup>2</sup> According to the WHO, C-section rates higher than 10% are not associated with lower maternal and newborn mortality on a population level; plus, practices to initiate, accelerate, terminate, regulate or monitor the physiological process of labour, may undermine the woman's capability to give birth and negatively impact her childbirth experience (Quattrocchi, 2024).

<sup>3</sup> For example, it is common for women to be allowed to move and eat during labor, fathers have been welcomed into delivery rooms, albeit as spectators; many facilities arrange rooming-in and time for skin-to-skin contact with the newborn. However, the discontent with the experience of hospital birth - due to a structural abuse of medicalisation, which does not take into account the woman's will - has acquired a collective dimension, which has been channelled in recent years into an international complaint against so-called “obstetric violence” (for the definition of the phenomenon and the data available on the incidence in the EU see Quattrocchi, 2024; for a sociological discussion on the movement see Antonelli, 2016; for some data on the incidence of obstetric violence in Italy see Scandurra et al., 2021).

<sup>4</sup> The doula is a trained professional providing emotional and practical support to the woman in all phases of the procreative cycle. She does not perform medical tasks and

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2021; Galková et al., 2022; Sestito, 2022); holistic practices of health are becoming more popular among mothers (Fedele, 2016), and new forms of spirituality centered on the Mother-Nature combination are spreading (Camorrino, 2021; Palmisano & Pannofino, 2021).

These trends, which point towards a collective search for naturalness, coexist with a growing use of technology in conception and an increasing resort to surrogates for pregnancy and childbirth. According to the latest report from the Istituto Superiore di Sanità<sup>5</sup> (ISS), in 2021 1,275 medically assisted reproduction (MAP) cycles over one million inhabitants were carried out on the Italian territory, whilst in 2005 the cycles were only 636 (ISS, 2023, p. 73); in 2005, children born alive from MAP represented 0.7 of births, while the figure rose to 3.8% in 2021 (ISS, 2023, p.74). There is no reliable data on the use of gestational surrogacy (GS): while this practice is illegal in Italy, heterosexual and homosexual couples are increasingly accessing it via foreign agencies and clinics (Bandelli, 2021). The spread of these procreative practices amongst the Italian population is accompanied by a gradual process of social legitimation and collective understanding of the motivations that push women and men to undertake diversified paths of technical procreation (Di Nicola, 2020; Viviani, 2020).

The aim of this study is precisely to understand the co-presence of opposing attitudes towards technology in the field of procreation. Interestingly, in the natural, respected or alternative childbirth discourse, technology is debated as a tool used routinely, even when not necessary, in the absence of an explicit will of the woman, according to the logic of male domination over the female body (Katz Rothman, 1982): in other words, in this critical discourse, the biomedical technique is represented as oppositional to female agency. Conversely, the diffusion of MAP rests on the representation of the technique as a valid ally to the unfulfilled procreative desire impeded by an “imperfect nature” (Secondulfo, 2024). In conception, the technique enters female bodies on demand, but when conception occurs without technique, the woman finds herself in a standardized path of clinical tests and procedures from the moment her “state” is ascertained. This happens even before a pathology is diagnosed, and until the birth of the child, regardless of her opinion on medicalization and with little room for discussion on the medical advice (Huschke, 2022).

Considering these observations, this article examines how birth professionals who contribute to the criticism of medicalization deal with the

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is mostly known as a birth-partner and post-natal helper. For a sociological discussion on this emerging care work see Pasian, 2022.

<sup>5</sup> It is the most important body for research, control and consultancy on public health in Italy.

growing use of MAP and GS. More precisely, it discusses how midwives, doulas, perinatal trainers, and consultants negotiate the defense of naturalness in a social and relational context in which the use of biomedical technology is a consolidated social norm in childbirth, and is growing further upstream in the procreative process, i.e. in conception. This study presents results of a qualitative investigation which was guided by the aforementioned research questions and was carried out through virtual focus groups with 21 participants during 2023. The research framework builds on the theory of sociological ambivalence; this theoretical framework enables readers to understand how the co-presence of forces that pull the subject in opposite directions unfolds and is addressed with respect to traditionally polarized values: the defense of naturalness and the use of technology to assert human will over nature. The article begins with an overview on the theoretical framework; then, the methodology is introduced; finally, the study results are discussed.

## **2. Theoretical framework**

### ***2.1 The return to nature and technological progress as sociological ambivalence***

Today's society has not witnessed “the end of grand narratives” predicted by post-modernism theorists, and faith in man's technical ability to govern and bend natural limits - both environmental and human - has not collapsed as conversely, this faith underpins investments in the digital and electric revolution for life-sustainability (Giaccardi and Magatti, 2022; Pellizzoni, 2022), artificial intelligence (Floridi, 2022) and biotechnology (Habermas, 2003). Nonetheless, the return to nature has acquired an attractive force in late modernity, giving rise to social movements for environmental and food protection (Katz Rothman, 2016), lifestyles and parenting inspired by ecologism, holistic conceptions of health (Fedele, 2016), and integration of alternative medicines into self-care (Secondulfo, 2009).

According to Italian sociologist Alberto Melucci: “The notion of Nature is reintroduced into complex societies as a cultural definition of needs, as that which escapes the control of the power apparatuses. It is conceived as a sort of “non-social” raw material which stands opposed to the omnipresent “social”. [...] The appeal to Nature is one of the modes of representation by which the individual resists control and rationalization. The return to Nature is therefore the awareness of the fact that our “Nature” belongs to us and it is not external to social action; hence it can be ordered in ways that run against the stipulations and desiderata of the apparatuses. This gives rise to a profound ambivalence

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which is constantly present in contemporary movements” (Melucci, 1996, p. 105). Melucci argues that the interpretation of needs as natural or authentic when they elude instrumental rationality, and the interpretation of needs as resulting from the network of social relations, are the two poles of a continuum that encompasses the entire symbolic spectrum of conflicts of contemporary society: in this continuum the very concept of nature is socialized into cultural forms that dictate lifestyles and forms of consumption; also, the same social movements that refer to the concept of nature to debate sexuality, body and identity, make the “already given” of nature questionable, by framing it as an object produced within a specific social structure (Melucci, 1996). The debates on health, illness, body, and desires - observes Melucci - are animated by a plurality of meanings that refer to the network of opposites, or rather to the set of apparently contradictory representations on nature and sociality that constitute the human being.

As previously mentioned, in procreation these poles coexist and orient individual and collective action: the search for natural birth and the reference to holistic maternal health practices are no longer an exclusive prerogative of a niche of women, once identified with the stereotype of the “hippy feminist” (Cramer, 2021); rather, from the perspective of an *à la carte* modernity, contemporary women choose, even within the same pregnancy, to rely on both technology and nature (Bravo-Moreno, 2021; Lance, 2017). Social movements such as the one for natural childbirth, but also the movements for procreative justice and parenting rights of homosexual and infertile couples (Navarro, 2020) contribute to changing the very meanings of nature, the values associated with it and its profound representations (Taylor, 2004). The nature of birth and death (Bauman, 2006) is culturalized to be understood and used in the biographical path of individualization (Beck, 2016). On this topic, Paola Di Nicola writes “Nature, in itself, is neither stepmother, nor benign, nor vindictive: it is perceived as such only if it favors or contrasts our actions. However, a “culturalized” vision of nature does not negate that in “nature” (i.e. without any human intervention) humans (like animals) are born males and females; that in the field of reproduction fertilization occurs with the meeting of an egg and a sperm; that there is no birth without pregnancy, of and from a woman’s body” (Di Nicola, 2024, p. 24).

What is at stake is not the ontology of human nature, but the assumption that nature itself - in its various culturalized versions - is the core value in defining desirable practices and in setting the limits of individual actions in the procreative field. This is the framework of the discussion offered hereby, despite the awareness that nowadays technology offers a multitude of opportunities to support individual will through the manipulation of biological material. This study seeks to shed light on the interweaving meanings and

contradictions mobilized to deal with the co-presence of procreative practices and value orientations that reproduce the nature-technical polarity.

The attempt to understand how workers in the field of *natural* childbirth deal with the normalization of *artificial* conception is not a provocative or specious intellectual problem; it is a theoretical question that seeks to contribute to the “unveiling” of visions on complex issues such as procreation, motherhood and human nature, which, as Beck (2016) observes, are currently undergoing a metamorphosis. With this intent, the duality natural birth/artificial conception is studied through the lens of sociological ambivalence; an illustration of this theoretical view is provided in the following paragraphs.

## ***2.2 Merton's theory of ambivalence***

In classical sociological analysis the concept of ambivalence was used to explain the relationship between the individual and society and was understood as a founding attribute of human nature, gripped by the co-present needs of freedom and belonging, of being for oneself and being social (Nedelmann, 2017). Robert K. Merton first looked at ambivalence as a structural element of social roles (1976): he studied the ways in which the “double valence” - that is the internal conflict typical of irreconcilable feelings, values, or behaviors (e.g. love and hate) - depends on the presence of contradictory forces in the social structure of statuses and roles (Barber, 2017); in particular, he conceived ambivalence as the set of normative expectations assigned to a social status (or set of statuses), or even to a single role in a single status, in a relationship of incompatibility, contradiction with each other, conflict, tension, inconsistency, and so on. In his view, the presence of contradictory and apparently irreconcilable normative expectations and values generates a sustained oscillation of actions, and a continuous negotiation between norms (which circumscribe the social role of the individual) and counter-norms (which reflect thoughts, values, and the uniqueness of the individual); this oscillation is the manifestation of an adherence to the norms (and counter-norms) of the role, rather than an idiosyncrasy. Therefore, ambivalence is functional to keep balance and produce social innovation, as long as it generates tension and encourages creative action.

Merton (1976) identified six types of ambivalence:

1. expectations in relationship between individuals with different status, e.g. lawyer-client (core type);
2. conflict generated in individuals with multiple positions, e.g. working-mothers;
3. co-presence of multiple roles in the same status, e.g. research and

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- teaching for university professors;
4. cultural conflict of values shared in the community, not ascribed to particular positions, e.g. equality and freedom;
  5. contradiction between social and cultural structure, which generates anomie;
  6. differences amongst cultural groups or sub-cultures.

Several shortcomings have been identified in the Mertonian theory of ambivalence: it does not adequately consider the structural nature of the relationship and the subjective contribution in shaping it; it disregards the influence of the needs of the Other in generating tension; it does not clarify the relationship between the core type and all other types of ambivalence; it characterizes the types analytically rather than empirically (Donati, 1987). Nevertheless, the theory is still relevant in contemporary sociological analysis: Giddens, Beck and Bauman (in Hillcoat-Nallétamb & Phillips, 2011) have grasped the structural character of ambivalence to explain the existential anxiety and insecurity that are endogenous in complex societies. According to them, ambivalence is inextricable from Western thought and modernity, structures human relationships and pervades the entire society, from the micro-dimension of feelings and subjective choices to the macro-dimension of social institutions.

### 3. Methodology

This study arises from the following question: how do birth professionals negotiate the defence of naturalness of human procreation with the use of technology by men and women who cannot have a child? The concept of ambivalence constitutes “the lens” through which procreation is examined, and informs the construction of the research question and methodology. This article argues that ambivalence can qualify the relationship that binds two main value forces in contemporary procreation: the force that pushes towards the search for naturalness, and the one that pushes towards self-determination beyond the limits of the biological body. The nature-technique polarity is assumed as a widespread tension rooted in the socio-cultural context in which birth workers operate. Accordingly, it focuses on both the first (core) and the fourth type of Mertonian ambivalences, to interpret the tensions that structure the role of the operator in relation to the choice of the woman-mother: which norms or counter-norms are followed if the woman chooses a practice that does not reflect the operator’s value preferences?

Considering ambivalence as a “resource available to the individual who, living in a complex and differentiated society, can calibrate his own behavior according to the circumstances” (Calabrò, 1997, p. 107), the concept is used to

interpret the strategies that birth workers implement to juggle between the two value poles, building a continuum of possible combinations and using the ambivalence of the role as a source for innovative action.

This study applies Noy's snowball technique (2008), and builds up from recent studies by its author (Bandelli, 2023); it consulted a total of 21 participants, selected from people who participated in public actions on the topics of childbirth and obstetric violence, who are freelancers, with the following roles: 4 midwives, 8 doulas, 7 perinatal and breastfeeding trainers, 1 journalist, 1 infertility expert psychologist. Considerable difficulty was encountered in gathering willingness to participate in this study: this difficulty can be unpacked - also in the light of the results that emerged from the focus groups - if one considers that MAP among self-employed professional birth workers is not the subject of a real trend or specific training; furthermore, GS is a controversial topic and is not yet a professional practice in Italy.

Six focus groups were organized using the Google Meet platform and the total interaction time amounts to approximately 6 hours. In all sessions, the same verbal stimuli were offered: the prompts were formulated by accentuating the nature/technique polarity, in order to "provoke" the debate; the conversation was moderated by the investigator, who encouraged respectful exchanges of ideas, freedom of expression and valorization of differences (Gariglio & Cardano, 2022). Only three of the five prompts administered in the focus groups are reported below, i.e. those most relevant to the development of the research question discussed in this article.

I – Historically, the so-called natural birth movement has interrogated the relationship between nature and technique in pregnancy and childbirth and criticised the "excessive" use of biomedical techniques interfering with the physiological processes, as well as with the birth experience of mothers, fathers and children. It would be interesting to understand which parameters are adopted to classify technical interventions as "excessive", and whether the same reflections have been applied on the use of biomedical technology in conception.

II - Procreation is a decomposable process, separated from sexuality and from motherhood. One can therefore argue that procreation can take place in ways different from those foreseen by nature. It would be interesting to understand how the defence of naturalness (i.e. the safeguard of physiology in labour, the promotion of breastfeeding and natural methods of care during pregnancy and postpartum) is negotiated when natural childbirth is requested by couples who conceived through MAP.

III - Skin-to-skin contact and immediate breastfeeding after birth is recommended by the WHO, and several health authorities agree on its importance in generating good maternal and child health outcomes. On the



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other hand, GS is permitted in many countries: this practice entails the separation of the dyad immediately after birth, or after a short time. Natural birth (and home birth) can coexist with artificial conception and, in countries where it is permitted, also with GS. In this regard, it is useful to consult the website of a former surrogate who became a doula consultant specialized in accompanying GS.<sup>6</sup> One of the blog's articles<sup>7</sup> discusses the possibility of planning a home birth for GS: the choice of birth methods is added to a series of options that are negotiated between the parties to "personalise" the procreative experience according to the commissioning parents' desires. It would be interesting to know whether there is an ongoing reflection among domiciliary midwives and doulas in Italy regarding these contradictions and possibilities.

The focus groups were recorded and the testimonies included in the video files were manually transcribed; the texts were read several times according to the order of the interactions and then catalogued by topic/prompt. Firstly, a subdivision of the participants into three groups was identified with respect to their personal opinions regarding the MAP (sceptical/in favour/against); the in-depth literature guided by the research questions determined the grouping and aimed at identifying thematic recurrences (Guest et al., 2012); then, recurring topics were identified: the questioning of natural etiquette, the reference to physiology, and the centrality of the woman's choice. The texts were reread trying to bring each comment back to the polarity informing the subject of this study, in order to understand how the polarity itself was deconstructed, evaded or re-proposed. In presenting the results, the discussion gives an account of each theme identified.

#### **4. Results of the empirical investigation**

The focus groups display a pluralism of opinions on MAP and GS: despite the presence of few enthusiasts and few opponents to these techniques most participants expressed an attitude of skepticism. The first group sees MAP as a manifestation of progress and emancipation; for the second group the impossibility of procreating and the resulting frustration should be accepted without resorting to technical paths, and above all without eliminating the figure of the mother; the majority group accepts the presence of technical modalities of procreation and, with a precautionary attitude (Jonas, 1997), questions the effects of extra-corporeal conception on the health of mother and child, and on

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<sup>6</sup> <http://www.surrogacybydesign.com/work-with-me>

<sup>7</sup> <http://www.surrogacybydesign.com/blog/h4jxxstzi3544mopx4cs2354rptc53>

the reproduction of the human species.

MAP have not yet given rise to structured reflections and training paths or shared assistance practices in the natural birth professional community. However, the operators are by no means strangers or uninvested in the topic<sup>8</sup>; they feel the need to have a deeper understanding of a phenomenon that is currently gaining popularity amongst new categories of women belonging to different age groups. It is a shared opinion that women who resort to MAP are victims of lack of social authorization; their experiences are not accepted as collective knowledge and forces them to undergo their procreative path almost in solitude and secrecy. GS, unlike MAP, is mostly perceived as a phenomenon alien to the participants' healthcare practice, and cases of direct knowledge of parents who have resorted to GS abroad are rare: two participants reported having received some requests for assistance in the puerperium by intended parents. As an emerging procreative practice, GS is mostly known from public debate and news, and knowledge of its details is still limited. Although the predominant feeling revealed in the focus groups towards this last practice was one of opposition, this feeling rests in the realm of personal sensibilities or opinions; should the practice be legalized in Italy, it would not prevent participants from keeping their professional roles.

After cross-examining the three categories of opinions, the following strategies were identified for the management of the nature/technique polarity proposed by the researcher as an interpretative key to the procreative phenomenon: nature is understood as the set of events not directly produced by rational action; physiology is seen as a normative reference point; the individual choice of the woman takes priority in the tension between nature and technology.

#### ***4.1 Nature versus rational action***

Participants believe that MAP pregnancies are complicated pregnancies (Bellieni, 2019): at a medical level they present more complications and more interventions in childbirth; on a relational level, the difficulties faced by the woman affect the mother-child relationship, and parents struggle to accept the child. The roots of these complications must be traced in a mix of social, psychological and physiological factors: a low social acceptance of MAP, which accompanies the heterosexual couples' sense of failure for their inability to

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<sup>8</sup> For instance, the magazine *Donna & Donna* (SEAO publishing house), founded by Verena Schmid, a pioneer midwife in the natural birth movement in Italy, dedicated issue 93 to the topic of surrogate motherhood.

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conceive naturally; the fear of becoming attached to the foetus after perinatal deaths in previous attempts; the perception that the current pregnancy is a precious one; the influence that medicalization has in making pregnancy a rationalized experience of control and fear, in which the foetus is treated as a product; and finally, the influence that conception without or outside bodies is believed to have on the behavior and “energy” of the foetus and on the maternal relationship.

According to most participants, MAP pregnancies are difficult because they are the result of actions driven by a strong will, or caused by rational actions; this particularity hinders the attitude of “surrendering”, which is typically triggered by the announcement of a spontaneous pregnancy.

“Motherhood, this event that happens energetically and sometimes you aren’t planning it, and then it comes to you, maybe you want it, the news of it is already an act to which you surrender. Damn, you got pregnant! When you do MAP it is not the event that comes to you and overwhelms you, but you are convinced that you are causing it. Thanks to your dedication and economic capacity, to the skill of the doctors you have chosen.”

From this perspective, surrendering to the body’s response and to the messages it sends is necessary for the success of procreation, from conception to breastfeeding. Surrendering is explained as a sort of request that the body - with its hormonal flows, and in relation to the child’s body - makes to the woman throughout the procreative process. The ability to surrender to events is considered more relevant than the technique itself, in a relationship of conflicting polarity in which surrendering is associated with feminine circularity and technique is associated with a linear way of operating resulting from patriarchal rationality.

“I have happened to follow women who are determined to get pregnant, and then get pregnant as soon as they give up trying. The linear vision of achieving goals is patriarchal, but women don’t work like that. Only by putting together the little pieces of the woman’s life, including her spirituality, a conducive terrain is developed and this enables the technique to have an effect, although I don’t know how direct the effect is.”

The vision of surrendering does not presuppose a passive resignation to procreative events, such as failure to conceive, but a long-term work of introspection and self-care that can lead to the realization of procreative desire without necessarily resorting to MAP. Whilst cases of apparent or temporary infertility are often referred to early medicalized process of infertile treatments where the technique is presented as an effective and immediate remedy,

participants believe that the assistance of midwives and doulas - based on active listening of the woman's desire for motherhood, family history and fears, continuity and personalization of the care relationship, and non-interventionism - is essential. The desire to enhance the tools of new midwifery care and the presence of doulas in the field of infertility emerges strongly from the accounts of the focus groups: their support would facilitate a natural conception, without resorting to technique, and would also help in addressing MAP's failures.

#### ***4.2 Physiology***

Women who have a radical approach towards the desirability of birth without interference question the term "natural"; the term is also questioned by women who accept MAP as an expression of emancipation or are skeptical or opposed to the practice. The word "physiology" is preferred to "nature", to indicate the normal, unpathologized functioning of the female body in the procreative process (Smith, 2022). The study of the physiology of birth was in fact the field of action around which the midwives' movement for natural childbirth was established in the 1970s.

"The word natural, also thanks to the deconstruction carried out by feminist activists, might be dangerous, a very narrow cage. Physiology is a flexible category that has to do with the well-being of women."

"In my opinion, the right term is "respect for physiology", otherwise we wouldn't even accept to wear glasses. Rejecting excessive interventions means rejecting unnecessary interventions. A cesarean section is necessary when otherwise the baby would be born with major problems, or the mother would die. The same applies to conception: one could say that if you don't get pregnant, then natural things dictate that you don't get pregnant. But how much does the desire to have a child weigh? And desires are part of naturalness"

"What is naturally, physiologically predisposed, has a degree of perfection, whereas the smallest detail has its own meaning even when we cannot explain it. I think there is little consideration about this, we think that as human beings we can imitate physiological processes and we do not question the consequences."

Alongside physiology, some also use the word "biology" as a paradigm to consider the differentiation between norm and counter-norm.

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“If we want to fight medicalization we must understand that the mother-child relationship has a biological basis, where by biological we must not only mean the physical relationship; we must go against the body-mind separation typical of Western thought, and recognize that it is an emotional bond fundamental to the survival of the species”.

To distinguish desirable or normative practices from deviating ones, and describe an ontology of procreation, participants drew from different scientific disciplines, including child and perinatal developmental psychology, endocrinology, epigenetics, neuroscience and immunology. In the view of the skeptics and opponents to MAP and GS, the cornerstone of physiological procreation is the preservation of the mother-child relationship in all phases, from conception to the puerperium. The relevance of hormonal flows and of oxytocin in generating attachment and recognition is often recalled; the concept of cellular memory and transgenerational transmission is often mentioned to highlight the importance of the pregnant mother's body in the life of the child, and the need to be cautious towards MAP; the importance of the microbiota and breastfeeding in building the child's immune system is also highlighted.

“We're using technologies that we know how to use, but we have no idea what we're doing at other levels. If it is proven that I have a cellular memory, I wouldn't do it, not because we shouldn't, but because we don't know what we are causing in the long term on human beings. What cellular memory brings an embryo that was frozen for three years and then implanted? I would be more cautious.”

“Microbiology and neurology are telling us otherwise, the vagus nerve is formed during pregnancy and serves for relationship and connection, we now know that it is the way in which we relate to the creature that forms it.”

According to participants with favorable opinions on MAP and GS, these physiological mechanisms of birth can be reproduced even with subjects other than the birthing mother: for example, through skin-to-skin contact with the father and with induced lactation in the social mother .

“Skin-to-skin contact encourages the development of the child's microbiota: however, the child does not have to be necessarily colonized from the mother's bacteria; he can also build a tailor-made microbiota through skin-to-skin contact with the father and other people he will live with.”

The re-semantization described so far allows to remove the bodily

processes of procreation from the symbolic realm of nature, which according to participants, has ideological connotations and lends itself to conservative discourses in which women are imagined according to traditional patriarchal roles.

“I would like to join the movement for naturalness, but I wouldn't like to be associated with pro-life movements and things like that. I ask myself: since when is having a child a right? If you say these things, you risk being seen as anti-abortion.”

In fact, this semantic operation allows to reduce ambivalence by addressing one of the conceptual poles with terms that refer to the specificity of scientific knowledge, rather than to contested symbols widely exploited by social movements (Melucci, 1996). In this way the tension of the nature/technique polarity is reduced, since physiology and biology are terms that refer to medical science, of which biomedical technique is an applicative extension.

#### ***4.3 Centrality of women's choice***

Regardless of personal opinions on MAP and GS, the participants share the imperative to suspend judgment regarding the woman's will and therefore encourage self-determination at every stage through an informed choice. A core-type ambivalence emerges when the polarity revolves around the woman-midwife or the woman-doula relationship: naturalness refers to the personal values of the operator, the recourse to technology refers to the choice of the woman. Therefore, when the operator's personal values are in contradiction with the woman's values, the ambivalence is resolved by prioritizing the woman's choice over her body; this happens regardless of personal positioning in the continuum enclosed by the polarities. While maintaining the value reference to naturalness or physiology of bodily processes on a personal level none of the participants shied away from action.

“To take a stand against this crazy thing is different than facing the reality: scientific technological advances happen, even if they're unregulated. We then work on minimizing the damage. At the level of activism, we can talk about the general reality. And I have no doubts about respecting the will of the woman. Then we can talk about the information that these women receive: their choices would be different with more complete information. As a (health) worker I must stick to one reality.”

Respect for the female will constitutes the guiding value of the participants,

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and some of them believe that any denial of the woman's will in childbirth is a form of violence or abuse: this applies when she desires a natural birth, but also when she requires interventions (such as epidural, induction and C-section) which are left unattended. In addition, if this strategy is fluid in the case of MAP, in the case of GS it is accompanied by doubts and ethical reflections on the freedom of the surrogate woman and possible harm inflicted to the child. Here are some examples:

“One of the issues circulating in natural childbirth activism is women's freedom of choice. And so, I wonder if the surrogate is truly free in her choice”

“I think I'm a person who doesn't judge, I support and care the woman, I do what I can. As a midwife I don't find it ethical to refuse help. Even if I wouldn't make those same choices on myself, I would probably make myself available. I wonder how I would react if I were aware that the child would suffer, if that woman tells me that she does not want skin to skin and wants the child to be given directly to the parents. What should I do if I know that this will harm the child?”

The centrality of respect for the woman's choice allows participants to circumvent the tension between technique and nature and between personal beliefs and the opinions of others. The value of pluralism is here restricted to the context of female will in the reproductive field; it is considered superior to the knowledge of physiology in professional practice and to the precautionary personal skepticism towards technical conception. Furthermore, trust in professional care tools allows midwives and doulas to stay close to the woman without limiting her will.

“Midwives' ethics dictates that we always try to maintain or restore physiology; it is possible to maximize the physiological dynamics which are positive resources for pregnancy. The vital energy that carries us forward in life arises from the sexual energy of conception. If a couple chooses MAP, we recommend making love at the moment their child is conceived in the laboratory: think about it, give it this energy!”

“These couples need to restore normality in the process of medical checks, ultrasounds and drugs; it becomes a job with a very busy agenda; they need to bring back beauty, sexual energy, the magic of conception, to find beauty and not just hardship in their history... and they also need naturalness to restore the emotions that women experience during a pregnancy, which are compromised by the “cold” of medicalization.”

Finally, it should be noted that the imperative to respect the will of the

woman and the adherence to the value of pluralism push operators to question the stability of their ideas: in trying to make sense of the social reality of growing acceptance of MAP some participants turn to a “higher order”, which we could precisely place in the domain of nature, invested with sacredness and invincibility (Szerszynski, 2005).

“We don’t know what children born from MAP will bring to the world. Ultimately, it is always God, nature and chance that make it possible.”

“A spiritual vision of birth tells us that children choose the family they want to arrive at, the type of birth with which they come on earth. It is a vision that fascinates me, but if I give credit to this vision, if today a large number of souls are choosing to arrive with MAP, in the womb of a woman who is using an embryo from two other people, these are all things that pose ethical and political dilemmas for me; yet, from a strictly spiritual point of view, I think that just as in natural childbirth there is something that we cannot explain, perhaps even in these things there is something that escapes us.”

## 5. Conclusions

Bauman (1991) argues that ambivalence is a constitutive element of late modern society, and that the tension management between opposing forces has been transferred from the level of the social role to that of individual identity - as it is in endless redefinition. The results presented in this study can be placed in this context, which the Polish sociologist defines as “the privatization of ambivalence” (Bauman, 1991, p. 217). In dealing with the co-presence of procreative possibilities that respond to ambivalent value forces, the professionals reached in this study implement a separation of their areas of action: in care relationships with the woman, the ambivalence is resolved by following the value of freedom of choice and that of female autonomy; in the other area of action, which concerns the expression of personal opinion and refers to the relationship of the Self with the human community, the ambivalence is resolved by choosing one of the two poles. Through this separation, the ambivalence generated in the specificity of the role is silenced (Merton, 1976), and a personal coherence inside and outside the role is recomposed. Through the recognition of pluralism and the personal will of women, the possibility that in the macro dimension of society the nature/technique ambivalence is resolved by legitimizing only one of the two poles at the expense of the other, is also neutralized. This means that a resolution of the tension through the choice of a third value alien to the polarity



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in question is possible: it concerns the subjectivity of the individual woman, and contributes to overcoming a rigid norm/deviance dualism in the social representation of procreation practices.

From this point of view, the requests on natural childbirth - at least those expressed by the study's participants - do not present characteristics of radicalism and absolutism with respect to the natural pole (which we have seen re-semantized in the field of science and taken as a point of reference in the search for meaning on procreative reality). The prioritised value - protected by the dialectical comparison with personal beliefs, the ethics of prudence and the physiology of procreation - is the centrality of the woman's will. The respect for individual (female) choice empowers women and couples who encounter natural childbirth operators in their procreative biography. In the process, they are embraced by caring relationships, exposed to practices aimed at restoring physiology and nurturing self-reflexivity, and initiated to criticism towards the normative biomedical practices they are subjected to.

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