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Romanian IVF: a brief history through the 'lens' of labour, migration and global egg donation markets

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Abstract This paper centres on a history of Romanian IVF, including the achievement of significant milestones and the establishment of key clinics. In addition to examining some of the legal and ethical aspects of IVF in Romania, the paper also details some important elements of IVF in neighbouring countries, providing a perspective on regional similarities and differences. Romania's neighbours with similar economies and national-religious contexts have very different IVF pasts and presents. This highlights the importance of migration and cross-border egg donation in understanding IVF in Romania. After providing an analysis of Romania's economy and migration, the paper examines Romania's egg donation history, arguing that it has a so-called 'extractive reproductive economy'. 2016 The Author. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

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Introduction

On 6 February 1996, Daniel, the first IVF baby in Romania, was born. This was nearly 20 years after the birth of the world's first IVF baby, Louise Brown, born in the UK in 1978. At that moment, Romania became the 18th country in the world to have a successful IVF birth (loan and Astarastoae, 2008). Leading up to this event, between 1993 and 1995, Dr Ioan Munteanu had established a centre for laparoscopy,

laparoscopic surgery, IVF and embryo transfer in the city of Timisoara, Romania. He opened the first Romanian IVF clinic on 20 May 1995. This was achieved with the help of the German Red Cross, led by Dr D Theatho at the Obstetric and Gynaecology Clinic of 'Bega' University (Firuleasa et al., 2010).

Given Romania's history of repressive reproductive policies, including both the promotion of eugenics in the 1930s (Turda, 2009) and Ceausescu's anti-abortion law

(Kligman, 1998), it is not surprising that it was one of the latecomers to IVF in Europe. Yet, this paper contends that to comprehend IVF in the Romanian context one must examine the interplay in the country between IVF, migration, economics and egg donation.

The paper centres on a history of Romanian IVF, including the achievement of significant milestones and the establishment of key clinics. In addition to examining some of the legal and ethical aspects of IVF in Romania, the paper also details some important elements of IVF in neighbouring countries, providing a perspective on regional similarities and differences. Romania's neighbours with similar economies and national-religious contexts have very different IVF pasts and presents. This highlights the importance of considering migration and cross-border egg donation in understanding IVF in Romania. After providing an analysis of Romania's economy and migration, the paper examines Romania's egg donation history, arguing that it has a so-called 'extractive reproductive economy' (Nahman, 2013).

Methodology

This paper is based on an anthropological study that traced and tracked the practices and discourses surrounding cross-border assisted reproductive technologies (specifically egg donation) in Israel and Romania beginning in 2002. In that year the ethnographic research conducted included in-depth qualitative interviews with 50 IVF patients in Israel and 21 egg donors in Romania (Nahman, 2005, 2006, 2011, 2012, 2013) and extensive anthropological observation in IVF clinics in those two countries. Since then, I have been conducting media analysis of the practices in those countries as well as tracking and analysing legal changes and ethical debates there.

Fertility in Romania

Since 1990 and the end of the Ceausescu era, there has been an increase in the number of families with only one child in Romania and a steady decline in the birth rate. Whilst on the one hand more women are deciding to have children, the preference has been for smaller families, although there is a rural—urban divide, with rural women tending to have larger families. Indeed, the number of women choosing to remain child-free has increased among women born after 1960 (Muresan et al., 2008). Furthermore, many women are choosing to postpone childbearing.

Contraceptive use is increasing in Romania. In 1993 it was at 43%, in 1999 it was 48% and in 2004 it was 58% (Muresan et al., 2008). Despite this increase in the use of modern contraceptive methods, abortion rates remain quite high — Romania has one of the highest rates in Europe (Philipov and Dorbritz, 2003). Abortion is regulated in Romania under the 2014 Penal Code, which permits abortion before 14 weeks, with the woman's consent, and with a licensed practitioner. In some cases, when it is for the benefit of the woman and foetus, abortion is permitted up to 24 weeks. Furthermore, self-induced abortions are not considered punishable acts.

Meanwhile, anti-abortion politics in Romania is on the rise, primarily spearheaded by ProVita, an organization

formed in late 1990 under the stated aim of protecting the life of the unborn child and motivated by Christian Orthodox religious values. In 2011, ProVita organized a series of country-wide coordinated marches against abortion and commented on its success online:

The March for Life took place in over 20 cities in Romania on Saturday, March 24. It is becoming one of the most important events in Romania, where ideas for life are reflected in the street. The event of this year expanded nationwide. Largely, the organizers were pro-vita/pro-life associations and representatives of churches and denominations in Romania. The organizers of the March launched a Manifesto, in which they demanded legislation for life and family in Romania.

Among the participants there were representatives of all generations, mainly young people.

A novelty is the way the March was perceived by the media, unlike last year. The news was rich, interspersed with many positive comments on life, and in some cases, the event was particularly debated among the important issues of the day.

It is an expanding event and had echoes in many important institutions such as Parliament, City Councils. Representatives of these important state institutions were primarily concerned about declining birth rates and poor health of women in Romania, due to abortion (http://provita.ro/en/new-details.php?id=1; accessed 30 March 2016).

Such endeavours by pro-life groups do not go unchallenged. The Romanian feminist movement is engaged in supporting access to safe abortions for all women. Romanian feminists are also engaged in cross-national anti-abortion politics. On 17 January 2014, Romanian feminists in Bucharest protested in front of the Spanish embassy in solidarity with Spanish women who were facing a ban on abortion. Over 200 signatures were collected on a petition in under 24 hours.

The sense that Romanian women are choosing not to reproduce raises the question of why they are making this choice. This paper attempts to provide some answers by looking at economic and migration issues in the country. But first, we turn to the topic of IVF.

Romanian clinics and rates of IVF

In 2012, there were 26 assisted reproduction clinics in Romania, offering wide-ranging services (Bretonniere, 2013). Of these, it is known that 13 are dedicated IVF clinics and seven offer fertility treatments, among which IVF may be offered. The total number of clinics has increased from 15 to 26 since Ferraretti et al. (2013) published results of a cross-European study of IVF with data drawn from European registers in 2009, from which much of the data below are taken. It is possible to access ICSI, sperm and egg donation, egg freezing and other services at these clinics. At least one of the clinics is owned by a Greek company, providing them with a clinic based in Romania.

In many of the 34 countries included in the study by Ferraretti et al. (2013), reporting is done nationally as well as centrally. Romania is one of the countries where the data is self-reported by the clinics and collected by a national

medical organization. Reporting is voluntary. In many of the other countries surveyed there was a national registry (Appendix 1). This in itself may indicate the level of legal, social and state prioritization of IVF. Of the 12 clinics that self-reported cycles, treatment types and IVF successes in 2009, there were 606 IVF treatment cycles. Total cycles of assisted reproductive technologies, including ICSI and egg donation, were 1052. There were 929 cycles of IVF initiated, 598 aspirations and a resultant 4.3% deliveries per aspiration. The total number of assisted reproductive technology babies delivered was 66, with IVF deliveries numbering 26 (of 158 clinical pregnancies). This is the lowest figure for IVF deliveries reported in all of the 34 countries surveyed (Ferraretti et al., 2013).

In terms of egg donation in Romania, there were 13 egg donations, eight transfers of fertilized ova (from fresh, not thawed, oocytes) and two pregnancies (ibid). The local rates of egg donation are very low and considerably lower than the number of Romanian egg donors abroad. According to a study by ESHRE published in 2014 (Pennings et al., 2014), Romanian women comprised the largest group of immigrant egg donors in Europe. These donors tend to go to Greece and Spain to donate their eggs in exchange for monetary compensation. It is unclear as yet whether they are part of the 900,000 Romanians living in Spain or whether they travel solely for the purpose of the procedure. However, given that Spain has changed its policy of donation, and now tends to focus on donations from Spanish residents, it is probable that these donors are part of the Romanian migrant population there. What is clear is that they formed a sizeable group among the 25,187 cycles of IVF with egg donation (22% of all IVF cycles are with egg donation in Europe) in Europe in 2010 (Kupka et al., 2014).

IVF in surrounding countries

There is a unique situation in Romanian IVF. Despite Romania being a technologically developed country, and playing an important role in being a supply country for European egg donation, and despite its doctors having the technical abilities to make a 66-year-old woman a mother, Romania does not play a leading role in IVF. The reasons for that will be explored below.

First, as discussed above, the number of births following IVF in Romania is low, yet Romanian women form a relatively sizeable population of foreign egg donors in other European countries. It might be argued that all Eastern European countries struggle when it comes to successful IVF rates and that Romania perhaps forms part of a regional picture. However, the higher rates of IVF and resultant babies in the surrounding countries negate that argument.

Specifically, in this section the paper reviews the ESHRE figures (Ferraretti et al., 2013) for IVF rates and outcomes for the countries surrounding Romania (population 20 million): Moldova (population 4 million), Ukraine (population 45 million), Hungary (population 10 million), Bulgaria (population 7 million) and Serbia (population 7 million). These are countries with some political and economic similarities as well as geographic proximity. There is not the space here to consider the specifics of each country's political and economic landscape. However, future research comparing these regional similarities and

differences might be useful in order to formulate correlations between IVF provision, outcomes, economics and culture.

First, as Romania has a higher number of IVF clinics than all of these surrounding countries, one might expect it to have high rates of IVF deliveries. Fewer than half of the 26 clinics reported rates to the ESHRE study and of those that did, low rates of IVF deliveries are nonetheless present. This compares to the surrounding countries as follows: Moldova, a much smaller country in size, has just one clinic. Serbia and Hungary have 12 clinics each, and Bulgaria has 17 clinics. Ukraine has 21 clinics. Yet Romania has the lowest rates of IVF deliveries across Europe (see Appendix 2).

Second, an examination of the numbers of treatment cycles is helpful in seeing whether treatment cycles and numbers of clinics correlate to numbers of babies born. Whilst Romania had 929 cycles of IVF, Hungary had 1230, Bulgaria 431, Moldova 255, Serbia 291 and Ukraine 2858 treatment cycles for IVF. The comparison between numbers of clinics and cycles does not yield parallel results. Meanwhile, Bulgaria and Serbia reported 123 and 77 IVF deliveries, respectively. Moldova with it sole clinic reported much higher numbers of resultant babies. There were 258 assisted reproductive technology deliveries in 2009 and 84 IVF deliveries. Finally, Ukraine with its 21 clinics generated 2792 assisted reproductive technology deliveries and 831 IVF deliveries.

Ukraine has the highest numbers of treatment cycles and resultant babies and merits greater attention. Ukraine is known as one of the larger Eastern European centres for cross-border reproduction. With egg donation legal in Ukraine, it is more likely nowadays to be a place where foreigners come for assisted reproduction. This country has clinics that provide donor gametes plus inexpensive treatment to discerning global assisted reproductive technology consumers.

When compared with these countries it can be seen that numbers of clinics in Romania is not a determining factor for success, and indeed it is important to note that success can be measured in different ways. Romania has many more clinics than some of the surrounding countries. However, treatment cycles are not a good predictor of success; Romania's 929 cycles are more numerous than in some of the other surrounding countries, yet its success rates fall far short by comparison. Only 26 IVF deliveries in Romania seems strikingly low and it leads one to question whether there is anything else that contributes to this statistic other than just the factors above.

We turn now to the ethical and legal aspects of Romanian IVF and then to economic and migration factors.

Legal and ethical aspects

Romanian IVF came under the global spotlight with respect to legal and ethical issues when it was discovered, and reported by the BBC, that a clinic in Romania was extracting eggs from young women and that these eggs were being sold to women in a London clinic. Further to that, Romanian IVF and egg donation once again came under the spotlight in 2005 when Adriana Illiescu, a 66-year-old former university professor, gave birth to her daughter Eliza, who was conceived via IVF with donated gametes. Since then,

scholars and bioethicists have examined the ethical, social and legal aspects of these events (Bretonniere, 2013; Cutas, 2007; Dickenson, 2007; Nahman, 2006; Waldby and Cooper, 2008; Widdows, 2009).

Between 1995 and 2003 there were no laws governing assisted reproduction in Romania. Indeed, there was relative silence surrounding the ethical and legal aspects of assisted reproductive technologies for a number of reasons. First, the high degree of religious affiliation to the Romanian Orthodox Church (in 2002, 87% of the Romanian population identified themselves as belonging to the Orthodox Church [loan and Astarastoae, 2008]), which was not initially supportive of assisted reproductive technologies. Second, the history of repressive anti-abortion politics - the legal and social taboos surrounding assisted reproductive technologies - prevented the proposal of a law governing assisted reproductive technologies for some time. Third, physicians felt it unnecessary to have laws governing their practice, as they believed in their own strong moral and professional codes that govern how they operate. The Orthodox Church held its own Bioethics Commission and decided that assisted reproductive technologies using a couple's own gametes are acceptable. Meanwhile, they rejected using gametes not belonging to the couple as this, it was argued, is similar to adultery. Finally, the Commission rejected the use of embryos in research and argued that a reduction of embryos in IVF is like abortion (loan and Astarastoae, 2008). Despite the aforementioned oppositions to a legal intervention concerning IVF and assisted reproduction in Romania, in 2003 a draft bill covering assisted reproductive technologies came out. In June 2004 it was adopted in the Romanian National Senate. However, this draft law was found to contravene the Romanian Constitution because it denied access to IVF by gay couples. The Romanian President Basescu vetoed the law (Bretonniere, 2013; Cutas, 2007).

A few years later, in 2009, when the global attention that had been on Romania had faded somewhat, a patient support network for infertility and IVF was set up, the Acociatia SOS Infertilitatea. This group advocates that infertility be recognized as an illness and works to make it a subject spoken about openly and taken seriously by government. It was initiated by Nicoleta Cristea-Brunel, who stated:

I had consulted Romanian forums on the web and read about people in Romania with fertility issues, who had to sell their car and mortgage their house for treatment. In France I had simply paid my regular health care contribution, because there, infertility is considered an illness, and the health care system assisted me in my attempts to have a baby. I had a strong empathy with the couples in Romania living this drama, and I asked them if they wanted help. I realized that they had not been asking for anything, because there was no association for patients afflicted by infertility, and I started by writing petitions to the Health Ministry in 2008. (http://old.rri.ro/arh-art.shtml?lang=1&sec=27&art=317875; accessed March 31 2016)

This small group of approximately 90 members has lobbied parliament to create a policy of state-sponsored IVF. They produce a blog, organize events and have links with Fertility Europe and other organizations inside and outside of Romania, in order to expand awareness and

support for IVF in the country. One of their main media campaigning slogans is 'Infertility is a Medical Condition'. Until now, according to SOS, infertility was a taboo topic in Romania.

IVF is costly in Romania, as in other places, amounting to approximately €3000-5000 per cycle of IVF. Romanian couples who can afford to, travel to neighbouring countries to access cheaper treatments. This patient advocacy group employed concerted energies to garner financial support for legislation and acknowledgement of the seriousness of the issue of infertility. Indeed: 'After almost three years of intense activity of our Association[a] national IVF program will be implemented in 2011 and 2012 and the couples that need IVF will benefit of compensation from the health insurance funds for one IVF attempt' (SOS Infertilitatea Association, http:// infertilitate.com/miscelanea/english/). The Romanian government dedicated approximately €1 million to this one-year experiment. At a time of economic austerity, this indicates that the people involved in the Association had worked hard and mobilized the support of doctors and MPs, as well as becoming affiliated to infertility associations internationally. It also indicates that the government itself may have been motivated to develop this arena, as indicated above.

It is clear that there is also increasing interest from the Romanian government to support IVF. A new initiative to train Romanian gynaecologists in a system used by Greek physicians, and a programme of subsidies is being trialled (Alexandra Gruian, personal communication; Craiu, 2014). In addition to improving success rates locally, it may be the case that more international training for physicians is part of Romania's marketing strategy for fertility tourism and for improving healthcare so as to become seen as a 'successful' European state.

Romanian economy and migration

Thus far, this paper has examined IVF in Romania in terms of its origins, ethical dimensions and the present-day situation. It has indicated that there may be additional factors affecting the low success rates of IVF in this country and how late it began providing IVF. We turn now to its economic situation as one way of arguing that the global economic situation and its local impacts on Romania are important factors in the history of Romanian IVF.

Economy and labour

The international financial crisis that began in 2008 severely affected Romanian industries. Construction, agriculture and services were particularly badly affected. Wages fell below the level of inflation. Indeed, Romanian wages are among the lowest in EU member states. Although Romania had very strong trade union and labour protection laws, this changed after the 2008 global economic crisis (Trif, 2014). According to the industrial relations analyst Aurora Trif, the government changed policies, which led to 'the implosion of trade unions' fundamental rights to bargain collectively, to form trade unions and to take industrial action' (Trif, 2014: 1). While foreign investors viewed Romanian union laws with suspicion as too protectionist, 'labour market regulations

were not perceived [by foreign investors] as hindering the competitiveness of Romania' (Trif, 2014: 4).

Despite this economic crisis, Romania has one of the lowest unemployment rates in Europe. This seems to be partly due to people 'exiting' employment in two ways. They either shifted to the vast informal economy or they emigrated abroad (Stan and Erne, 2014). These two types of employment 'exit' account for around 45% of the population of the entire country. Importantly, during this time of economic crisis, where foreign investment is very high, the informal economy has grown from 22% of the population in 2007 to 29% in 2012 (European Commission, 2013: 5; Trif, 2014: 7). Political economist Cornel Ban argues convincingly that the economic downturn in Romania is closely linked to its openness to foreign investment, which correlates to 85% of Romania's total banking assets (Ban, 2013).

These economic and labour issues provide the context in which women and their partners negotiate questions about reproducing through assisted reproductive technologies. They echo the argument voiced by the research participants in my study who stated they did not want children of their own (and hence wished to donate ova to women from other countries), because 'Romania is a difficult place to live'.

Migration

Taking the above into account, it should come as no surprise that Romanian nationals make up the second largest group of all European migrants in Europe. Approximately 2.7 million people have migrated out of Romania across Europe, which is 15% of the Romanian population (Stan and Erne, 2014). This mass exit did not occur during the 1990s economic recession, but rather after 2000 when the Romanian economy saw growth. However, 'low wages were one of the key factors that led to massive labour migration before (and after) the crisis and low labour force participation' (Trif, 2014: 4). During this period of growth, the industries that saw the most growth were 'real estate and financial speculation, household, business and public debt and export-oriented manufacturing in both light and heavy industries' (Stan and Erne, 2014: 22-23). This led to an expansion of the middle class. Yet the largest group of working class Romanians did not have many viable alternatives other than migration.

These economic and migration factors give a good indication as to why IVF might not be the highest priority for the majority of Romanians, unlike in Denmark where IVF babies comprise 4.6% of the population (Ferraretti et al., 2013). We turn now to Romania's strong contribution to cross-border egg donor population and original research I conducted on this topic.

Cross-border egg donation, the missing link in Romania's IVF history

On an unseasonably warm September day in 2002 I sat in the courtyard garden at the Bucharest IVF clinic of Dr Shmuel, one of the self-described international 'pioneers' of oocyte donation. During 2002 I conducted ethnographic observations and interviews at an IVF clinic in Bucharest owned by Dr Shmuel, an Israeli man whose family had immigrated to Israel. Although that clinic was shut down in 2005 due to claims

of insufficient consent practices and ovarian hyperstimulation, I was fortunate to be permitted time in the clinic and interviewed 21 Romanian women who were first-, second- or third-time egg 'donors'. I lodged at the clinic, slept in a comfortable room and interviewed the women in the evenings when they came to get injections or in the daytime before and after oocyte extraction. I was present for many of the aspiration procedures to extract follicular fluid from women's ovaries and watched the 'drama' unfold as these were taken into the adjacent laboratory to perform all the steps involved in making fertilized ova (Nahman, 2006, 2013).

In the 1990s, practising oocyte donation in Romania with financial compensation was unregulated and not illegal. In my research with 50 Israeli couples (men and women) undergoing IVF with egg donation, as well as numerous physicians engaged in cross-border egg donation, I came across at least two Israeli clinics that were operating in Bucharest. The first clinic was described to me as a 'well-oiled machine' by one of my Jewish Israeli research participants (Dorit, Israeli egg recipient, interview 2002). Together with the IVF clinic which she attended in Israel to receive all the hormonal preparations for receiving a fertilized egg or ovum, the partner clinic in Romania was owned and operated by an Israeli company who had arranged all of her international travel, accommodation and transport within Romania, as well as suggesting tours she could take in the city of Bucharest and beyond. Staying at the well-known Bucharest 'Hotel Central', she was aware she was surrounded by other women who, like her, were also reluctantly attempting to become pregnant through IVF with egg donation, and were secretly visiting the clinic in Romania.

The second Israeli clinic that provided cross-border egg donation in Romania at the time worked slightly differently. It performed what I have called 'reverse traffic' (Nahman, 2008). That is, instead of the patients travelling to the clinic, the fertilized ova were cryopreserved and transported in canisters to Israel by the head doctor and his chief embryologist. The use of this language of 'traffic' not only denotes the directionality of travel but also hints to the reader that there may be an element of circumventing the laws in some European countries against egg donation by 'importing' not oocytes but fertilized ova frozen at the 2 pro-nucleate (PN)-stage. Legally, they are not eggs, nor are they considered embryos yet. Thus, what happens in this process is that bodily substances taken from highly economically precarious unwaged donors, receiving a one-off payment, are 'trafficked', without it appearing, according to any law, as trafficking. No people are moved around, only substance. This kind of circumvention of laws happens in other places as well (Bergmann, 2011).

Elena, who was in her early twenties, smoked a cigarette in the hour or so after undergoing her second oocyte aspiration, with mild sedation. The aspiration procedure involved the removal of follicular fluid (which contains the eggs) from her ovaries. She told me that in her day-to-day life she managed a small bookshop part-time while studying for her architecture/planning degree at university. Her salary, a good one by Romanian standards and for the type of job, amounted to 32 cents (US) an hour. The US\$200 equivalent she was about to receive in an envelope in cash for her eggs was, by comparison, a small fortune. She was a student who wanted me to know that her studies were conducted in French, her second language, and here we were

conversing fluently in English. My own maternal grandmother had always tried to impress upon me how cosmopolitan Romania was. She too, back in the 1930s in rural Romania, had been schooled in both French and Romanian. Romania has long strived to be counted as part of a wider Western Europe. Elena was one of hundreds of young women who came to this clinic to be a paid egg 'donor' over a few years from the late 1990s to the early 2000s (http://news.bbc.co.uk/1/hi/world/ europe/4237393.stm). She had heard of it from her friend who worked for a linen laundering service opposite the clinic. In a country where infertility was a taboo subject, secrecy also surrounded the donation of oocytes. Most of the women here did not tell anyone that they were going for oocyte aspiration. Yet there was another sense throughout all my interviews that the women were aspirational, trying to participate in a new cultural phenomenon of oocyte donation in exchange for money. As I have argued elsewhere, in post-socialist Romania where abortions were outlawed by Ceausescu and 'adoption tourism' flourished, getting to do something with one's reproductive capacities and participate in a global market and in the cultural transformation that has been brought about by IVF seemed like a very interesting prospect to many of the women I spoke to (Nahman, 2006, 2013). Although some women in the clinic felt sadness and shame, the majority of the women I interviewed seemed matter-of-fact about it. 'Romania is a hard place to live', I was told repeatedly by those I encountered in clinics, and elsewhere. Romanian women were aspiring to a better existence by exchanging their oocytes for money.

The clinic in which Elena and I were sitting in 2002 no longer exists as it once did, a place where women came to have hormonal injections for a month prior to 'donating' their eggs there. It was reportedly shut down after two women took the chief physician and owner to court for negative health outcomes following their hormonal injections and oocyte extraction. The doctor practising the oocyte extractions, not a qualified IVF specialist but a GP, was prevented from practising medicine for one year and then was permitted to return to practice.

Discussion

Romania is a border country into and out of Europe, and a latecomer to the EU. Westerners often perceive it as lagging behind the rest of Europe in areas of health, education and work. However, in the 1930s it was already striving for integration with Europe, with physicians trained abroad in France and Germany, and French and German influences on policies of reproduction and health. Indeed, in the 1930s abortion was allowed in Romania, albeit solely for eugenic purposes or eliminating so-called 'degenerates' (Turda, 2009). Ceausescu's coercive anti-abortion laws led not only to many fatal and dangerous underground abortions but also to the images seen in the media in the 1980s of neglected children in Romanian orphanages. It seems that these tropes of Romanian reproduction could only lead to stories of oocyte theft, for which Romania is famous.

In the worlds of anthropology, bioethics and beyond, Romanian IVF tends to be known for oocyte donation more than anything else. A few years ago, when scholars and activists became fascinated by Romanian egg donation, it was due to the events that were becoming known around the world

as the 'theft' or 'trafficking' of oocytes from women there. At the time, Romanian egg donation procedures had little in place concerning donor consent and standards of treatment were largely unregulated. There was a concern that this country on the 'edge' of Europe, about to enter its Union, was going to symbolically contaminate modern-day Europe with practices deemed 'un-European'. Romanian women were viewed as unliberated and oppressed. Framed within the legacy of the oppressive Ceausescu era banning of abortion, Romania was imagined as a place of unfettered reproduction, disease and backwardness. To the rest of Europe, Romania was a place that needed to be reined in and civilized, and also as a place to invest capital due to extremely low wages.

If one were to solely examine its history of reproduction, without looking at factors such as the economy, migration and labour relations, one might have been surprised that Romanians themselves were hardly benefiting at all from the technologies that were assisting reproduction across its borders. Romania was at once a place speeding ahead in the global provision of donated eggs and precursor embryos, but lagging significantly in the global race of 'firsts' with respect to IVF. This contradiction is a significant aspect of the 'IVF in Romania' history, and indeed in the global IVF history, that bears further exploration.

The specificity of Romania's economic and political history, whilst providing context and depth, also extends to how we construct IVF histories themselves and the historical place of oocyte donation practices within those histories. Some national contexts, such as Romania in this case, can become symbolic figures in global IVF. As the anthropologists Sarah Franklin and Marilyn Strathern have shown (Franklin, 1997, 2013; Strathern, 1992), while IVF is a technology for making people, and of remaking kinship and biology, it is at the same time heavily indebted to shifts in the global economy and migration for how it has developed, where it has gone and to what extent it is being taken up. The relative slowness or lack of IVF in Romania - despite the cosmopolitan population and businesses and the state-level links with other European states — illustrates some tensions between IVF more broadly and cross-border reproduction in particular. Some national contexts seem more inclined towards being providing societies; for example, until recently, India was a major global supplier of surrogacy. Similarly, Romanian economic, migration and fertility histories position it as more of a provider of oocytes than a place for IVF. Although 85% of Romania's assets are foreign-owned, a high percentage of the population is not employed by these industries but rather employed informally and abroad. There is an 'extractive market' in Romania. Concomitantly, the vast majority of Romanian women are not engaged in seeking to become pregnant via IVF. They are seeking to find ways to survive in an almost impossible economic situation.

Furthermore, as in many developing societies, things such as access to safe abortion and the fight for abortion remain ever-present. As documented above, abortion rates are very high in Romania and anti-abortion politics are on the rise. Romanian feminists themselves seem relatively unconcerned with IVF compared with their fight for abortion rights for women and other issues (this has been confirmed by Romanian doctoral researcher and feminist activist Alexandra Gruian [personal communication]). An examination of Romanian feminist online spaces indicates that issues such as the fight

against domestic violence and sexual abuse, and equal rights to education, healthcare and in the workplace feature most strongly on the agenda.

Meanwhile, despite the fact that feminists seem relatively inattentive to IVF as a social issue, the Romanian government itself is attempting to promote IVF growth, as mentioned earlier through initiatives to support the education of Romanian doctors by foreign IVF experts (Craiu, 2014). It is part of a wider World Bank initiative in Romania to increase Romanian economic development and stability. One of the areas of improvement promoted by this initiative is the arena of health and healthcare. Maternal mortality is cited as a major risk factor, as is the need to improve patient and outpatient care (World Bank, 2014). Recently the Romanian government cited IVF as an area it wanted to improve and the Ministry of Health requested greater financial investment to this end (http://www.romania-insider.com/romanias-ministry-of-health-asks-for-higher-budget-in-2015/136528/).

It should not be ruled out that nationalism is one reason for the slight rise in promotion of IVF by the government, alongside the concomitant concern about high levels of abortions. In 2013 the Romanian President Traian Basescu stated to a meeting of 'business women':

How on earth can Roma women have five or six children, and [ethnic] Romanian women cannot?'I wouldn't want to ask how many of you have any children. Listen, I have been working hard to convince my daughters to have children, whether married or unmarried, 'Girls, have at least one child, after all it's a patriotic act. (cited in lordache, 2014: 147).

In Romania, IVF is the younger sibling of egg donation, conceived much later. This fact seems important in the characterization of IVF in this context. Whilst geographically located within Europe and the EU, Romania is widely considered to be a developing country (but in the higher ranks of those countries, alongside Brazil and Russia). In a bid to create economic growth the World Bank has enrolled Romania in its Country Partnership Strategy 2014–2017, aligning with a wider regional strategy the aims of which are broadly to create a 'government of the 21st century', growth and jobs, and social inclusion. The investment from the EU involves funding to support better healthcare, and learning from other EU countries. It is likely that the IVF training cited by Craiu (2014) is part of this wider development process the country is undergoing with World Bank assistance.

That oocyte donation came before IVF for the majority of people in Romania indicates we can think of Romania as what Sharmila Rudrappa and I call an 'extractive reproductive economy'. The women I spoke to in a Bucharest IVF clinic said they were selling their eggs to get 'a better life' (Nahman, 2013). They were what anthropologist Lawrence Cohen terms 'bioavailable', turning themselves into something like a 'natural resource', or capitalizing on their bodily assets of eggs to improve their lives. Romanian IVF is one of the areas where the intensity of austerity is felt in a widespread fashion so that 'improvement' and 'assistance' come to mean very specific things about participating in a global neoliberal economy as well as about reproducing. In this particular account of IVF then, egg donation is central. Whilst seemingly on the borders of Europe in the imaginations of the leaders of the EU, and in the national imaginaries of the most powerful states within that union, the Romanian experience tells us something that is at the heart of IVF as a technology: that part of what IVF remakes and reveals are economic relations, migrational ones, and relations of labour and care. In the context of Europe trying to develop its border states, IVF is one route to modernizing Romanian society and making it economically viable. For the majority of Romanian women, IVF has not meant an opportunity to have a child, or being impelled to use technology that is available. Rather, for most Romanian women who are seeking to remain child-free, or to have smaller families, or migrate elsewhere, IVF technology has provided an opportunity for a new kind of income via egg donation in a way that is comparable to women in other countries considered to be economically depressed.

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Appendix 1. Reporting methods in those countries where all clinics reported to the national register in 2009

Country	Number of IVF clinics in the country	Number of clinics reporting	IVF cycles	IVF deliveries	Egg donation	Egg donation deliveries
Romania	12	8	606	26	13	1
Hungary	12	12	1230	No data	61	No data
Moldova	1	1	255	84	No data	No data

(Appendix 1 continued on next page)

Appendix 1 (continued)

Country	Number of IVF clinics in the country	Number of clinics reporting	IVF cycles	IVF deliveries	Egg donation	Egg donation deliveries
Bulgaria	17	8	431	123	52	25
Serbia	12	9	291	77	No data	No data
Ukraine	21	15	2858	831	704	226

Ferraretti et al. (2013) Assisted reproductive technology in Europe, 2009: results generated from European registers by ESHRE. Supplementary data: http://humrep.oxfordjournals.org/content/suppl/2013/06/14/det278.DC1 (accessed 11 July 2016).

Appendix 2. IVF and egg donation in six central European states

Country	Requirements	Responsibility	Reporting metho	Reporting methods	
			Cycles	Deliveries	
All reporting					
Austria	Compulsory	National Health Authority	Individual	Individual	
Belgium	Compulsory	National Health Authority	Individual	Individual	
Croatia	Compulsory	National Health Authority	Summaries	Summaries	
Cyprus	Compulsory	National Health Authority	Summaries	Summaries	
Czech Republic	Compulsory	National Health Authority	Individual	Individual	
Denmark	Voluntary	Medical Organization	Summaries	Summaries	
Finland	Compulsory	National Health Authority	Summaries	Summaries	
France	Compulsory	National Health Authority	Summaries	Summaries	
Germany	Compulsory	Medical Organization	Individual	Individual	
Hungary	Compulsory	National Health Authority	Individual	Individual	
Iceland	Compulsory	Medical Organization	Summaries	Summaries	
Italy	Compulsory	National Health Authority	Summaries	Summaries	
Macedonia	Voluntary	Medical Organization	Summaries	Summaries	
Moldova	Compulsory	Medical Organization	Summaries	Summaries	
Montenegro	Compulsory	Medical Organization	Summaries	Summaries	
Norway	Compulsory	National Health Authority	Summaries	Summaries	
Portugal	Compulsory	National Health Authority	Summaries	Summaries	
Slovenia	Compulsory	National Health Authority	Summaries	Summaries	
Sweden	Compulsory	Medical Organization	Individual	Individual	
The Netherlands	Compulsory	Medical Organization	Summaries	Summaries	
United Kingdom	Compulsory	National Health Authority	Individual	Individual	
Partially reporting					
Bulgaria	Voluntary	National Health Authority	Summaries	Summaries	
Greece	Voluntary	National Health Authority	Summaries	Summaries	
Ireland	Voluntary	Medical Organization	Summaries	Summaries	
Kazakhstan	Voluntary	National Health Authority	Summaries	Summaries	
Latvia	Voluntary	Medical Organization	Summaries	Summaries	
Lithuania	Voluntary	Personal initiative	Summaries	Summaries	
Poland	Voluntary	Medical Organization	Summaries	Summaries	
Romania	Voluntary	Medical Organization	Summaries	Summaries	
Russia	Voluntary	Medical Organization	Summaries	Summaries	
Serbia	Voluntary	Medical Organization	Individual	Individual	
Spain	Voluntary	Medical Organization	Summaries	Summaries	
Switzerland	Voluntary	Medical Organization	Individual	Individual	
Ukraine	Voluntary	Medical Organization	Summaries	Summaries	

Data drawn from Ferraretti et al. (2013) Assisted reproductive technology in Europe, 2009: results generated from European registers by ESHRE. Supplementary data: http://humrep.oxfordjournals.org/content/suppl/2013/06/14/det278.DC1 (accessed 11 July 2016).

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