
Between Advanced Medical Technology and Prayer: Infertility Treatment in Post-socialist Poland*

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Abstract: In Poland, invitro fertilisation technology (IVF) has been in use for over 25 years, garnering success and social approval. However, in 2007, a heated debate erupted on the moral, legal and economic aspects of IVF. A growing chorus of emphatic Catholic voices calls for IVF to be banned. This paper focuses on 'naprotechnology', a new actor and a fresh card in Poland's IVF debate. This method of treating infertility in accordance with the teachings of the Catholic Church is promoted as a cheaper and more effective alternative to IVF. Naprotechnology is primarily based on close observation of the female fertility cycle, but also involves pharmacological or surgical treatments. Most Polish gynecologists specialising in infertility treatments are strongly critical of the method, which is seldom referenced in international medical literature. Nonetheless, naprotechnology has considerable exposure in major Polish media outlets. The method has been debated in the Polish Parliament and is promoted by many politicians. The author argues that, despite the possible perception of naprotechnology as an emancipating force, it is in fact a form of a colonisation of the female body and strengthens traditional gender imagery and modern forms of discipline (control, confession, body regimes).

Keywords: in vitro fertilisation, Catholic Church, naprotechnology, post-socialism, democratisation, Poland

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'For some time the public debate on in vitro fertilisation has been shaken up by the extraordinary news of a new method of infertility treatment called naprotechnology', wrote Izabela Kloc, a member of the Polish Parliament, in her interpolation to the Minister of Health in 2012. 'Not only is this method described as an alternative to in vitro fertilisation, but it is also highly effective. Unlike on in vitro fertilization, which by its nature involves destroying conceived human beings and thus brings about death rather than life, naprotechnology is both ethical and

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effective.¹ What is this 'naprotechnology', an infertility treatment method virtually unknown outside of Poland?

In the first part of my article I present a brief overview of the IVF debate, because naprotechnology was invented as a response to the development of assisted reproductive technologies (ART) and only in that context it is possible to understand its meanings and implications. In the next sections of the article, I explore the cultural dimensions of naprotechnology. Central issues to be examined include body regimes and gender constructions. Moreover, I situate naprotechnology within the wider discussion about medicalisation, biomedicalisation, and science in post-socialist Poland. The specific questions to be answered are: How does the naprotechnological discourse define women's bodies? How are gender relations played out in naprotechnology? What is the position of naprotechnology in relation to science, modern medicine and biomedicine?

Naprotechnology is the focal point of the article as a new card in the IVF debate and discourse, and as a political phenomenon referenced in the media and particularly on the internet. My analysis is based on four years of research into the Polish IVF debate. I investigated IVF-related material in the Polish press published since the 1970s, when IVF technology was still at the cutting edge of medical science. I talked to infertile women, the vast majority of whom have undergone IVF procedures. My information also comes from leading daily and weekly Catholic press titles including *Niedziela* (Sunday), *Gość Niedzielny* (The Sunday Visitor), *Nasz Dziennik* (Our Daily Newspaper), Catholic internet portals (e.g. *Frona.pl*, *Opoka.pl*), naprotechnology websites (e.g. *Naprotechnology.com*, *Leczenie-nieplodnosci.pl*, *Profamilia21.pl*), and sites maintained by Polish naprotechnology clinics (e.g. *Napromedica.pl*, *macierzynstwoizycie.pl*). I followed online infertility forums where infertile women share life stories and information relating to treatment, most notably *NaszBocian.pl* (Poland's largest forum on infertility and adoption), *Gazeta.pl* (a popular portal owned by Agora, Poland's largest online services group), and *28dni.pl* (a menstrual cycle-tracking website for women using the Natural Family Planning or Fertility Recognition Methods). I took part in conferences and symposiums which included papers and presentations on naprotechnology.² I am also interested in what politicians have to say on the subject as reported in the media or evidenced in transcripts of parliamentary debates.

There is a wealth of anthropological literature, particularly feminist literature, on the problem of infertility [e.g. Thompson 2005; Throsby 2004; Bonaccorso 2009; de Jong and Tkach 2009]. Naprotechnology, however, has been left unap-

¹ See the website of the Polish Sejm: <http://www.sejm.gov.pl/sejm7.nsf/InterpelacjaTresc.xsp?key=17624A7C> (retrieved 20 December 2014).

² For example, *Profilaktyka zdrowia prokreacyjnego* (Prevention of Procreative Health), Medical University of Warsaw, 15 October 2011; I Międzynarodowa Konferencja *Nieplodność w XXI wieku. Mity i rzeczywistość* First International Conference on 'Infertility in the 21st Century: Myths and Reality', 26–27 October 2012, Warsaw.

praised by anthropological or sociological interpretations. My analysis falls under post-socialist studies, a line of research that studies the negotiation processes affecting gender roles and reproduction rights in Eastern Europe following the collapse of communism. In the Polish context, it is also essential to emphasise the role of the Catholic Church in the production of meanings and shaping the rights and duties of the state, citizens, and families [e.g. Nowicka 2007; Graff 2008; Mishtal 2009].

IVF in Poland

To understand the various cultural meanings of naprotechnology and its sudden popularity, the term must be set within the wider context of the Polish IVF debate. The first child conceived in Poland using in vitro fertilisation was born in 1987, two years before the collapse of communism, a pivotal moment that was followed by fundamental economic transformation. Ever since, IVF technology has been a contentious issue in the public debate on the role of the Catholic Church in Poland, and Poland's symbolic position between the country's Western-led cultural and economic transformation on the one hand and its conservative Catholic and national tradition on the other. The heated controversy over IVF in Poland today clearly relates not so much to the technology itself as to the notions of the nation, citizenship, rights, and social roles, including gender roles [Radkowska-Walkowicz 2012a, 2013, 2014]. Analyses of the debate have shown that the process of democratisation has been closely linked with a curtailing of women's reproductive rights [Mishtal 2009; Zielińska 2000]. The IVF debate in Poland reveals the various tensions accompanying Poland's transition to a liberal democracy.

There are currently about fifty infertility clinics in Poland, which use practically all the infertility treatment methods available to modern medicine and achieve good results in terms of pregnancy rates as compared to global data. Nevertheless, IVF in Poland is not regulated by law,³ even though the procedure has been partly covered by the Polish national health service since 2013. Poland has a public health-care system, but patients who choose to undergo IVF must use private fertility clinics, a situation that affects the conditions of IVF treatment programmes and the provision of information on ART.

Most Poles support IVF irrespective of religious or political affiliation. According to the research reports of CBOS (a Polish public opinion research centre), most Poles (70–80%) approve of the use of IVF by married couples who otherwise

³ Several draft bills on IVF have been proposed in Parliament, ranging from a highly restrictive proposal to ban the treatment (one of the bills prepared by a right-wing party, and promoted by the Catholic Church, stipulates that carrying out IVF should be punishable by a prison sentence), to a highly liberal one providing for unlimited ART, but none have been voted into effect.

cannot have children (the report is based on polling data regularly collected since 1995 up to the present day). Despite the recent clear and vocal anti-IVF stance of the Catholic Church,⁴ in 2012 approval for IVF was higher than in previous years (with 79% of Poles supporting and 16% opposing IVF) [CBOS 2012]. Notably, up to 90% of Poles identify themselves as Catholic in opinion polls [Borowik 2001: 23; Hall 2012], even though just over one-half of Poles report that they follow the teachings of the Catholic Church in their lives. Polish society seems to be undergoing a moral liberalisation in line with European trends. Attitudes towards issues relating to sexuality, such as premarital sex, non-monogamous relationships, or the use of contraception, are more relaxed than those officially dictated by the Catholic Church, which shows that we are observing the strong individualisation and privatisation of religion. Although the situation of the Catholic Church in Poland is hardly one of institutional crisis (as is the case in Western Europe [Hall 2012]), many people tend to give themselves considerable leeway in interpreting the Church's ethical doctrine.

'When communism collapsed, the Church took full advantage and gained real political power. Church officials entered the mainstream of public life, becoming very visible and influential. ... The state built religion into the entire operational system', notes Wanda Nowicka [2007: 184]. The Catholic Church is a key political actor in Poland today, with a growing influence on legislation and public debate. Post-1989 Poland is characterised by very liberal economic policies combined with strict policies on conventions and social norms, especially those relating to reproduction rights. According to Joanna Mishtal, '[t]he fall of state socialism in Poland in 1989 constituted a critical moment that redefined policies regulating reproductive health and access to care.' [Mishtal 2009: 161] The Catholic Church has played a major role in this process. The lack of separation of church and state is particularly apparent when it comes to reproductive rights, which affects not only abortion, a problem much discussed in feminist literature [e.g. Gawlicz 2005; Graff 2008; Nowicka 2007], but also the right to take advantage of developments in reproductive medicine, such as IVF.

After 1989, the political tensions around reproductive rights and ART grad-

⁴ The Vatican statement on IVF is clear: this technology is 'illicit'. In *Instruction Dignitas Personae On Certain Bioethical Questions* the Congregation for the Doctrine of the Faith states: 'The Church moreover holds that it is ethically unacceptable to dissociate procreation from the integrally personal context of the conjugal act ... human procreation is a personal act of a husband and wife, which is not capable of substitution. The blithe acceptance of the enormous number of abortions involved in the process of in vitro fertilization vividly illustrates how the replacement of the conjugal act by a technical procedure—in addition to being in contradiction with the respect that is due to procreation as something that cannot be reduced to mere reproduction—leads to a weakening of the respect owed to every human being. Recognition of such respect is, on the other hand, promoted by the intimacy of husband and wife nourished by married love.' [Congregation for the Doctrine of the Faith 2008]

ually mounted: from political gamesmanship at individual hospitals and on the local government level, to Sunday church sermonising, all the way to political battles in Parliament and debates in major media outlets [Radkowska-Walkowicz 2013: 42–49; 2014]. The debate on the moral, legal, and economic aspects of IVF entered a particularly heated phase late in 2007. Catholic voices demanding a ban on IVF had been growing in number and intensity, with clergymen and conservative journalists leading an all-out attack on what they call ‘the in vitro industry’, a catch-all term denoting anything to do with ART. Catholic critics accuse IVF clinics of acting solely for economic gain, hiding information on the risks that IVF poses to women and children, and hiring veterinarians instead of medical doctors, and not infrequently even accuse them of committing murder and causing a ‘holocaust of conceived children’, a Polish pro-life way of referring to aborted embryos and fetuses [Radkowska-Walkowicz 2012b, 2013].

Many points in the IVF debate are a reprisal of the earlier debate on abortion that swept through Poland in the early 1990s [Chełstowska 2011: 104]: the pro-life side relies on similar arguments and emotions, wheeling out the same characters and the lofty slogans invoking the Day of Judgement, eternity, and questions of life and death. Eleonora Zielińska points out: ‘The abortion debate is thus central to the process of democratization itself—to what models of democracy and the state will be institutionalized, to the ways in which the legal system and rule of law will function, and to the degree of direct citizens’ participation in government.’ [Zielińska 2000: 52] In the same way, the current IVF debate plays a part in negotiating the shape of democracy in Poland [Radkowska-Walkowicz 2014].

Effectively comparing IVF to abortion is the main strategy of IVF opponents. The IVF procedure is described as a sophisticated form of abortion. Archbishop Józef Michalik, an important actor on the Polish political scene, likens abortion to murder: ‘The killing of an innocent man is a crime and it can never be justified. Both abortion and the elimination of a life conceived in a test tube is murder.’ [Michalik 2009: 2] The Polish IVF debate thus goes beyond IVF itself. In the context of the abortion debate Zielińska pointed out that abortion ‘represents a coded discourse that reflects fundamental concerns, including the shape of the state itself, the state’s obligation to society (and vice versa), the rule of law, and ... the scope of the protection of civil rights and fundamental freedoms.’ [Zielińska 2004: 24; see Gal and Kligman 2000: 10] Today, the same appears to apply to IVF.

The Catholic Church and its supporters have created a new enemy, which is being blamed for increasingly serious crimes. However, most Poles still approve of IVF, and the problem of infertility is an undeniable fact, especially if we accept that Poland is facing a demographic crisis, a matter of serious concern to right-wing groups in Poland [Mishtal 2012]. Thus, naprotechnology—presented as an alternative infertility treatment—has become a key new player in the debate on reproduction in Catholic Poland.

Naprotechnology

In accordance with the teachings of the Catholic Church, naprotechnology is promoted as a cheaper and more effective alternative to IVF (which the proponents of naprotechnology argue should be banned). According to Naprotechnology.com: 'NaProTECHNOLOGY (Natural Procreative Technology) is a new women's health science that monitors and maintains a woman's reproductive and gynaecological health. It provides medical and surgical treatments that cooperate completely with the reproductive system.'⁵ Naprotechnology was invented in the early 1980s by Thomas W. Hilgers, gynaecologist and founder of the Pope Paul VI Institute for the Study of Human Reproduction in Omaha, Nebraska. Hilgers created the centre to establish medicine-based support for the teachings contained in *Humanae Vitae*, a papal encyclical on the regulation of human reproduction. In Poland, naprotechnology was first used and promoted in the late 2000s, which coincided with a heated debate on the permissibility or penalisation of IVF. Prominent political figures entered the fray, and the careers of some MPs, Catholic Church representatives and journalists were built or boosted around this issue. The first naprotechnological clinic in Poland opened in 2009 in the city of Białystok, the birthplace of IVF treatment in Poland. The person behind the naprotechnology clinic was Tadeusz Wasilewski, a former collaborator of Professor Marian Szamatowicz, an IVF pioneer in Poland and head of the Clinic of Gynaecology at the Medical University in Białystok, where the country's first IVF procedures were successfully performed. In the Catholic magazine *Miłujcie się!* (Love One Another!), Wasilewski wrote about his conversion:

It was early 2007. My wife and I were returning from our vacation in Slovakia. Something was happening to me that I could not humanly explain. I suddenly began to perceive life in a new light. I felt it pulsating within me. I saw my work through the prism of two arboreal crowns. One crown was green, in full leaf, alive. It represented the children to whom the IVF programme gave life. The other crown was sear and leafless. It represented the children to whom the method denied the chance of further life. Such was the in vitro program. I always knew that a number of human beings had to die in the process of realising this program; but this particular evening it was as if the scales had fallen from my eyes and I was seeing it through the prism of life—in all its vibrancy. ... On March 31st I tendered my resignation from the Institute. I would no longer work in the IVF program—I told the director ... In 2008, Dr. Thomas W. Hilgers ... organised a convention of naprotechnologists in Rome. There, along with a few colleagues from Białystok whom I talked into going with me, I became convinced of the value of this field of science ... The first test-tube baby was born in 1987. That same year Dr. Hilgers began his research, which gave rise to the term 'naprotechnology.' God presented the world with two methods of

⁵ Quoted from the website Naprotechnology.com: <http://www.naprotechnology.com/> (retrieved 22 December 2014).

dealing with infertility. Man chose the IVF program. But Hilgers insisted, 'No, I will not carry out this program. I will respect life and look for other ways.' And he developed natural procreative technology. The Venerable John Paul II, who was then pope, assisted Hilgers financially. Every year he issued checks to him in the amount of several thousand—even tens of thousands of—dollars. He helped him because Hilgers had nothing to live on. [Wasilewski 2010]

Today, there are dozens of doctors and naprotechnology instructors in Poland, and new naprotechnology centres open every year in affiliation with local churches. At the end of 2011 (before the government offered to cover the costs of IVF procedures for 15 000 couples), the mayor of Częstochowa (a city famous for its shrine to the Virgin Mary and consequently viewed as something of a spiritual capital by Polish Catholics) offered partial coverage of IVF procedures, to be financed from the city coffers, causing outrage among the clergy and right-wing politicians and political commentators. In 2014, naprotechnology interventions began to be covered as well.

Supporters of naprotechnology describe the method as an alternative to ART despite the fact that naprotechnology is ineffective at dealing with many medical problems that are treatable using ART (such as azoospermia, occlusion of the fallopian tubes, advanced endometriosis) [Kuczyński et al. n.d.], and that many of the medical interventions used in naprotechnology are also part of standard pre-ART infertility treatments. Naprotechnology emphasises accurate diagnosis and careful examination of the woman's body and completely rejects IVF or insemination. Naprotechnology has a strong ideological basis, with clear-cut distinctions between what is permissible and what is ethically unacceptable. Although it relies on specialised language and uses the instruments of mainstream medicine, its roots are deeply religious, predicated on God as the ultimate creator in the act of conception. The website of the foundation of the John Paul II Institute for the Treatment of Infertility in Marriage, which runs a naprotechnology clinic in Lublin, says:

We are aware that the Creator has endowed us with the ability to discover—almost always—the underlying causes of infertility and often also ways of treating these. Infertility is an illness or a symptom of an illness and so it is not right to propose that couples use artificial methods of reproduction by resorting to laboratories producing children (i.e. IVF clinics) or methods of reproduction developed by animal science, such as artificial insemination, since these are methods which treat nothing but only bypass underlying problems needing to be addressed and produce children in ways which violate human dignity.⁶

⁶ Quoted from the website of the Foundation of John Paul II Institute for Martial Infertility Treatment, retrieved 22 December 2014, <http://www.leczenie-nieplodnosci.pl/pl/fundacja/>.

The basis of a naprotechnology diagnosis, which, according to its supporters, offers the key to an effective treatment, involves observation of the vaginal mucus, which is tested, analysed, and categorised. 'We get the inescapable impression that the complexity of the female vaginal mucus reveals the intelligence of Nature', writes Edyta Kopera [2010] in the Catholic magazine *Życie i Płodność* (Life and Fertility).

By monitoring daily changes in the appearance of her mucus, a woman can become a regular observer and active participant in her own reproductive and gynaecological health. There are certain parameters for testing a woman's mucus, including elasticity, colour, and texture. In order to be able to fully rely on observations made by women and use them for diagnosis we need a standardised observation and record-keeping methodology to turn subjective evaluation into objective description. This is made possible by the CREIGHTON MODEL System. [Kopera 2010]

Effectively, then, naprotechnology boils down to providing a detailed and accurate diagnosis of a woman's fertility through a physiological and biochemical analysis of her menstrual cycle, with a focus on the body's hormonal regulation. The main tool is the Creighton model, a standardised system of 'objective mucus evaluation' (which takes place 'on a regular basis, throughout the day, during each bathroom visit' [Barczentewicz 2009]). With this, the following parameters are analysed: cycle length, length of pre- and post-ovulation phases, day of ovulation, variation in menstrual bleeding, the occurrence of light bleeding or spotting. The couple gets help from trained assistants (not necessarily with a medical background) and gynaecologists. Pharmacological treatment is important, though it does not necessarily meet current standards of evidence-based medicine. Unregistered medication is used, as well as medication recommended for other conditions, including low doses of naltrexone (an opioid receptor antagonist promoted in unconventional medicine even though it is officially registered in Poland to treat alcohol dependence), less invasive mucolytic agents and Guaifenesin (which loosen bronchial mucus and are administered here to improve the quality of cervical mucus) or vitamin D3 [Boyle 2007; Jędrzejczyk 2010].⁷ Naprotechnologists with medical degrees also use hormonal medication, especially progesterone and clomiphene,⁸ which are supposed to stimulate ovulation (they often identify ovulation problems). In naprotechnological treatments, these are sometimes used for longer periods than recommended by medical authorities such as the Polish Association of Reproductive Medicine to avoid side effects.⁹ Also, surgical-diagnostic treatment methods such as hysteroscopy

⁷ See <http://www.fertilitycare.net/NewTreatments.htm>, <http://www.naprotechnology.com>.

⁸ <http://naprotechnology.com/progesterone.htm>.

⁹ Use of Clomifene is not recommended for periods exceeding 6 months, according to the Division of Fertility and Infertility of the Polish Gynaecological Association, <http://spin.org.pl/wp-content/uploads/Post%C4%99powanie-z-niep%C5%82odn%C4%85>

or laparoscopy ('near contact laparoscopy') are recommended on a larger scale than they would be in mainstream medical care. Despite this frequent application of highly invasive pharmaceuticals and surgical interventions, supporters of naprotechnology emphasise the method's supposedly natural and ecological character. The foundation emphasises on its website that high importance is attached to using modern laser technology, including laser vaporisation of endometriosis lesions, reconstructive surgery on fallopian tubes, surgical techniques for PCOS (polycystic ovarian syndrome), and specific treatments for growths. When these fail, the source suggests, 'adoption should be recommended',¹⁰ effectively making adoption the last stage in a naprotechnology treatment.

Naprotechnology places a heavy emphasis on diet. As part of the treatment women undergo extensive allergy testing, which usually reveals allergies to numerous products, including cow's milk and gluten. Diet is an inherent and fundamental element of the regime administered to infertile women. The diagnosis and treatment process takes about two years, though pregnancy may occur at an earlier state or the treatment may be extended.

Naprotechnology has its proponents in the medical establishment, especially among Catholics, but medical personnel specialising in infertility treatment are mostly critical of the method [e.g. Szamatowicz 2009, 2012]. It is not recommended by the Division of Fertility and Infertility of the Polish Gynaecological Association and the Polish Association of Reproductive Medicine, representatives of which state in their recommendations on infertility treatment using ART:

The aim of the method is to identify the cause of infertility and its treatment, focusing on woman's hormonal economy, all this while applying the popular diagnostic methods. The therapy does not permit the use of insemination or in vitro fertilisation, and as such the method can not help women with ovarian insufficiency, advanced endometriosis, fallopian tubes occlusion, or poor fallopian tubes patency, or the male infertility factor. The procedural algorithm offered in naprotechnology has not been proved in controlled clinical trials. For these reasons naprotechnology cannot qualify as a recommended procedure in the treatment of infertility. [Kuczyński et al. n.d.]

At the same time, internet portals and Catholic publications publicise the success stories¹¹ of couples who become parents after many years of naprotech-

par%C4%851.pdf (retrieved 15 June 2014); some alleging abuses of medication in naprotechnology, see <http://www.nasz-bocian.pl/phpbbforum/viewtopic.php?f=6&t=56550&start=450>; see also Dolińska [2011: 120].

¹⁰ According to the Foundation of the John Paul II Institute for the Treatment of Infertility in Marriage, <http://www.leczenie-nieplodnosci.pl/pl/leczenie/diagnostyka-i-leczenie-wg-naprotechnology/#more-550> (retrieved 15 June 2014).

¹¹ I do not want to assess whether these internet stories are real or not. I assume that they all shape the cultural meanings of naprotechnology.

nology treatment. The forum AbrahamiSara.pl (a web portal for married couples affected by infertility) includes a post from a woman who uses the alias *inishmore*:

After 3 years of trying, in my 17th cycle, which was managed as per naprotechnology instructions, for the first time in our lives we saw the second line appear on a pregnancy test ... we did the test on P+18 (the day we got back from holiday), with P+17 being Children's Day ... myself, I always had irregular cycles, very painful periods, ovulation problems, polycystic ovaries (fortunately only visually), insulin resistance, some hormonal problems, high sensitivity to stress, a stressful job, suspected endometriosis ... my husband—low semen parameters (both in terms of quality and quantity), 'regular' doctors said there was no chance of a natural pregnancy, high cholesterol, varicocele ... Starting on the second day of our lucky cycle I prayed the rosary novena to Our Lady of Pompeii ... that was a lot of effort (I'd planned to do it many times before but always gave up), but this time I found the strength to make the time and find the motivation and peace I needed for prayer ...

Around October last year my husband became more active. He took up martial arts, and he started jogging this spring ... Over the past year I went swimming on a regular basis, I played volleyball and did yoga ...

We changed our diet, too. Since October we gradually came to eat more fruit and vegetables, less fried stuff, more light, nutritious foods (replacing all white flour-based foods with wholemeal), regular meals, absolutely no carbonated drinks, and no alcohol since January ... Thanks to all this, and certainly thanks to the prayers of all our family members and to the fact that one of us would always hang on when the other one was ready to give up, we too can now say that we can have children :-).¹² [emphasis mine]

This story is a good illustration of naprotechnology treatment and its attendant use of various expert discourses combined with seemingly contradictory viewpoints. Moreover, it reveals ambiguities in the current Catholic discourses, especially the ambivalent attitude toward science, what is discussed below. Naprotechnology includes gynaecological interventions and prayer, which in this context appear to be inseparable elements. Highly medicalised and technical language (such as the reference to a 'test on P+18') alternates with a rhetoric that has very little to do with official professional medical discourse ('the novenna of Our Lady of Pompeii'). This creates the impression (often voiced by the proponents of naprotechnology) that medicine without a religious element does not treat infertility but only 'bypasses the problem'. In this discourse, the religious context enhances medicine and makes the infertility treatment more ethical and, consequently, more effective.

¹² Quoted from the web portal Abrahamisara.pl or 'Abraham and Sarah'; <http://abrahamsara.pl/forum/naprotechnologia/nasze-male-i-duze-sukcesy> (retrieved 15 June 2014).

Politics and biomedicine

The idea of naprotechnology found fertile soil in Poland. Today the method is mentioned in prominent media outlets, including mainstream public media, and in conferences and symposiums, including those not affiliated with the Catholic Church. Although naprotechnology centres exist in Ireland, Canada, and the United States, the method is practically unknown outside Poland, and it is very seldom referenced in specialist literature or during international gynecology congresses. In Poland, naprotechnology has its proponents in the Polish Parliament, where it is mentioned in debates and interpellations, an obviously political phenomenon. Czesław Hoc, a Polish MP, asks: 'Why don't we develop naprotechnology, an effective system of treatment which is cheaper, more respectful of natural laws and rules, and offers a chance for conceiving new babies naturally?'¹³ Another MP, Tadeusz Wita, says: 'With certainty, in vitro is not an actual infertility treatment method. Naprotechnology is. Only naprotechnology.'¹⁴ Maria Nowak, an MP, asks: 'What kind of funding is allocated to naprotechnology, which, I repeat, truly stands the test, as confirmed in real life examples and evidence?'¹⁵

In the eyes of conservative politicians, naprotechnology is almost the perfect method: cheap, natural, and highly effective (it is claimed to produce results in up to 80% of cases), as opposed to IVF, which the proponents of naprotechnology argue is not so much a cure as a way around the problem. Naprotechnology is regarded as an ethical, effective and modern solution. Nevertheless, despite a history that goes back almost 30 years, it is difficult to find any articles on naprotechnology in reputable medical journals. The PubMed database contained just four references as of the end of 2013, including two publications which are lists of the effectiveness rates of naprotechnology in infertility treatment [Stanford et al. 2008; Them, Schliep and Stanford 2012],¹⁶ neither of which is free from methodological defects [Dolińska 2011; Sills et al. 2009].¹⁷ Despite this, proponents of

¹³ Quoted from the website of the Polish Sejm: <http://orka2.sejm.gov.pl/Debata6.nsf/main/14AE9F53> (retrieved 15 June 2014).

¹⁴ Quoted from the website of the Polish Sejm: <http://orka2.sejm.gov.pl/Debata6.nsf/main/3FA9890A> (retrieved 15 June 2014).

¹⁵ Quoted from the website of the Polish Sejm: <http://orka2.sejm.gov.pl/Debata6.nsf/main/5733C310> (retrieved 15 June 2014).

¹⁶ See the website of the Polish Sejm: <http://www.ncbi.nlm.nih.gov/pubmed?term=naprotechnology&cmd=correctspelling> (retrieved 15 June 2014).

¹⁷ After a detailed analysis of an article from the PubMed database on the effectiveness of naprotechnology (together with various articles on the effectiveness of different techniques of treating infertility and the possibility of spontaneous pregnancy despite an infertility diagnosis), Barbara Dolińska writes: 'Setting aside the ideological matters and limits, naprotechnology is nothing but conventional infertility treatment. There is also nothing to indicate its supposedly unique effectiveness or exceptionalism. The obligatory requirement of an infertility diagnosis according to the Creighton model and the involvement of specially trained instructors does not seem to influence the effectiveness of the

naprotechnology present the method as a form of fully scientific, *evidence-based medicine* that implements cutting-edge diagnostic-therapeutic methods. No references are made to other treatment systems (such as, for instance, Traditional Chinese medicine), but only to mainstream medical studies recognised in Euro-American culture with a successful track record (usually such research is two or three decades old). Despite the scientific cloak, the method itself is a form of criticism. Maciej Barcentewicz (a gynecologist, a father of eleven, and a leading promoter of naprotechnology in Poland), says:

The main difference between [naprotechnology] and 'modern' reproductive medicine, which first seeks to regulate conception through various methods of contraception and pregnancy termination (i.e. by destroying conceived human life), and then to replace natural life-creation processes (natural methods of conception) with breeding and reproductive methods from animal science, i.e. insemination and in vitro fertilization, is [naprotechnology's] focus on accurate diagnosis and effective treatment.¹⁸

The success of naprotechnology in Poland derives not only from the fact that the method is championed by the Catholic Church and certain political groups, although their roles should not be underestimated. Without a doubt, part of the explanation lies in the weak and ineffective nature of the country's health-care system as a whole, together with the dissatisfaction felt by many female and male patients over the fact that typical, conventional doctors—unlike practitioners of naprotechnology—tend not to spend enough time with their patients or fully address their health problems, thus ignoring many symptoms. Also, in vitro procedures, which are very costly, were not covered under the state health care plan before July 2013. Incidentally, this is not to say that naprotechnology procedures are inexpensive—the cost of an appointment at a naprotechnology centre is comparable to an appointment at a private infertility treatment clinic. Taken together, the cost balance of the procedures and forms of medication involved in both types of treatment may not in fact be necessarily favourable to naprotechnology, as financial outcomes may vary depending on the length and type of treatment. However, proponents of naprotechnology emphasise that the method treats patients as human beings, putting the psychological and human factors at the forefront, as opposed to late modern biomedical science, which is founded on a trust in technology [Postman 1993] and laboratory results, on biopolitics and technocratic

method given that the pregnancy rates achieved through this method are similar to, or lower than, the rates of spontaneous pregnancy in couples diagnosed with infertility. The method is mainly based on pharmacotherapy with all its attendant negative effects, and to describe it ... as natural/organic seems rather unjustified.' [Dolińska 2011: 132]

¹⁸ Quoted from the website of the Foundation of the John Paul II Institute for the Treatment of Infertility in Marriage: <http://www.leczenie-nieplodnosci.pl/pl/leczenie/roznic-miedzy-naprotechnology-a-medycyna-reprodukcyjna/> (retrieved 15 June 2014).

views (on biomedical science, see, for example, Clarke et al. [2003] and Lock and Nguyen [2010]). Naprotechnology resists advanced forms of biomedicalisation, such as ART, which seek to change the definition of 'life itself' [Rose 2007]. While it is possible to observe the increasing ability of biomedicine to intervene at the molecular level (e.g. pre-implantation genetic diagnosis, genetic screening, IVF, and especially ICSI—intracytoplasmic sperm injection) [ibid.], naprotechnology, a classic example of modern medicalisation is grounded in the clinical gaze. At the same time, naprotechnology emphasises an individually tailored approach to both female and male patients, and takes a critical view of the standardisation and normalisation trends that shape biomedical thinking [Lock and Nguyen 2010: 1]. This narrative, which supposedly recognises the unique nature of each patient's body, contrasts with the standards of the Polish Gynaecological Association and the Polish Association of Reproductive Medicine. However, this does not mean that naprotechnologists are advocates for patient-centric medicine and patient's individualism. As I shall show below, naprotechnology is a modern technology of control.

Discipline

Time is one of the crucial categories both in the biomedical and naprotechnology discourses, but ART and naprotechnology offer different ways of understanding and managing time. Next to religious views and arguments, time seems to be the most important issue in discussions between naprotechnology specialists and most gynaecologists. The Polish 'father of IVF', Marian Szamatowicz, says: 'To offer misleading, ineffective treatments is to rob the woman of her reproductive time.' [2009, 2004] He also says: 'It angers me that pharmacological treatments are administered to men where there's no scientific evidence of their effectiveness, and all this time the women are moving on in years. And when it finally turns out that naprotechnology has failed, it is already too late to help. I call [naprotechnology] a thief of reproductive time.' [Szamatowicz 2012] The stakes are considerable and involve the decline in the number and quality of eggs a woman has as she grows older and the fact that pregnancy becomes less likely as one ages. Physicians working in IVF fertility clinics argue that time is a crucial factor and age is an indication for IVF treatment. During the first year of regular unprotected intercourse, 84% of women get pregnant. The rate goes up to 92% of women after two years, and 93% after three [Radwan 2011: 11]. These are, of course, just statistics. Spontaneous pregnancy (without technological and medical support) is possible regardless of the poor medical results, but the biomedical paradigm, with its basis in probability theory and statistical theory, does not include this baseline rate in its treatment effectiveness ratios. Choosing IVF does not amount to ruling out other possibilities of conception, and the outcomes are analysed using notions such as calculation, statistics, and risk management. Biomedical thinking is predicated on standardisation and normalisation, and will therefore opt for more

invasive and technological solutions rather than consider a different area or form of expertise (for more on managing and experiencing risk in the context of ART, see Becker [2000: 79–101]).

Naprotechnology demands months of painstaking observation and a complete focus on the body: the self-examination of cervical mucus, pre-scheduled intercourse, diets, and much leg-spreading in front of mirrors and doctors. Obviously, IVF is a very demanding method as well. After the physically exhausting preparations of ovarian stimulation, egg retrieval, and embryo transfer, the woman may end up back at square one and have to repeat the process, perhaps multiple times. ART offers the hope of a quick solution, a hope which may be deceptive (Karen Throsby calls IVF the 'maybe-next-time promise' [2004: 8], see also Franklin [1997: 135]), making the decision to discontinue treatment psychologically difficult [Throsby 2004: 57]. Technology is perceived as potentially perfect—unlike the body, which is seen as imperfect and an actual obstacle to becoming pregnant.

Naprotechnology reverses this point of view: ART methods are too invasive, leaving the subject bruised and sullied, whereas the real solution should sought within the woman and should work with her body. Instead of technomedicine, 'highly dependent on sophisticated diagnostic and therapeutic equipment' [Rose 2007: 11], the biomedical meddling with the essence of biological 'life itself' [Rose 2007], naprotechnology is a classic example of modern medicalisation: diagnosing, parceling, controlling [Foucault 1975]. Although comparing medicine 'then and now' in the context of Foucault's theory of biopolitics, Rose notes [2007: 10] that "'the body itself" remains the focus of the clinical gaze', and 'doctors have lost the monopoly of diagnostic gaze and of the therapeutic calculation: the clinical judgment of the practicing physician is hemmed in and constrained by the demands of evidence-based medicine and the requirements for the use of standardized, corporately framed diagnostic and prescribing procedures' [ibid.: 11]. Naprotechnology seems to empower medical (naprotechnological) practitioners and restore their authority to control a patient's life.

Articles [e.g. Boyle 2007; Barcentewicz 2009], websites, and forums devoted to naprotechnology and IVF offer evidence that the naprotechnological body is subject to dietary regimes, endless clinical observations, and internalised control of the subjectified self to an even greater extent than is the case with the bodies of patients undergoing IVF treatment. As Foucault puts it: 'There are two meanings of the word "subject": subject to someone else by control and dependence; and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power which subjugates and makes subject to.' [1982: 781] The aim of the naprotechnology treatment is to collect the maximum amount of data on the patient's body, even where such data is not related to fertility (i.e. is medically irrelevant). Therefore, naprotechnology is not a successor to folk or non-European medical systems, with their emphasis on using a holistic approach, but rather a successor to conventional modern medicine. In fact, we cannot even be sure if it can cure anything, but it definitely offers considerable mechanisms of control.

According to Bolesław Piecha, a strong proponent of naprotechnology, former Polish Minister of Health, and a parliamentarian, already cited above: 'Naprotechnology has one terrible drawback: it takes time. And the modern world is impatient.'¹⁹ Naprotechnology is therefore seen as not just a tool for treating infertility, but also a tool for fighting the modern world, and the texts I have analysed present IVF as a symbol of this hurried, technologised world. In this view, not only is naprotechnology an example of modern medicine at work, but it also promotes a particular lifestyle in a perfect embodiment of modern power, whose aim is to discipline the individual by disciplining her body. Thus, it is a critique of late modernity for giving the individual too much choice, while at the same time manipulating human life on the molecular level.

Naprotechnology is an attempt to engage and defeat Western biomedical science on its own turf, using its own tools, concepts, and achievements. In Polish Catholic discourse the attitude toward science is one of ambiguity. It is presented as a threat to Catholic morality, and at the same time as a shared and universal good. According to this rhetoric, science has been misused and abused and must be snatched back from Dr. Frankenstein's hands and restored to the humanistic (Catholic) ideal. This kind of science is governed by Catholic doctrine and remains ethically good as long as it does not contradict Church doctrine and morality. Naprotechnology is an excellent example of how the Catholic Church steers clear of competing with science while using science to boost its own moral teaching. Moreover, this teaching only gains credibility on the basis of its scientific credentials. Such links between the Catholic Church and science should not be surprising given the ideas in the encyclical letter *Fides et Ratio* promulgated by Pope John Paul II on 14 September 1998, which begins with the statement: 'Faith and reason are like two wings on which the human spirit rises to the contemplation of truth.' [John Paul II 1998]

Esther Peperkamp has drawn attention to this practice of Catholic discourse relying on medical and scientific evidence in reference to sexual education and 'natural family planning' in the Polish Catholic youth movement. She claims that defining the modern body as a secularised body (in the sense of Bryan Turner's classic texts about the body) is false, as it 'completely ignores the changes that have taken place within Christian traditions themselves' [Peperkamp 2008: 132]. Religion has not simply been replaced by modern medicine; rather, the latter 'provides the technological means to practice a virtuous life, although it does so with unintended effects, transforming the face of religion and religious authority' [ibid.: 133]. Peperkamp writes:

The fertility chart is an excellent example of cross-fertilisation of disciplinary regimes. Instead of medicine taking over the control of the human body from religion,

¹⁹ Quoted from Blogpress, a platform for very conservative blogs: <http://www.blogpress.pl/node/13752> (retrieved 20 December 2014).

as some have argued ... medical knowledge actually may be enhancing religious disciplinary regimes. While Foucault has argued for the influence of religion on modern disciplinary regimes, it now seems that these modern disciplinary regimes themselves influence religion. A tool that is borrowed from the field of medicine functions to create what can be called religious subjectivities. [ibid.: 123]

Although one of the issues at stake in the Polish discussion about IVF is indeed the particular view or stance taken on science, this does not mean that there are advocates of science on one side and opponents of it on the other. Science no longer creates dividing lines in public discourse. Nevertheless, the opponents of IVF stress the dangers resulting from technological change, which takes away from the mystery of creation (or, as they term it, 'openness to life'). They also point out the excessive power over the body and reproduction IVF represents, which accounts for their reliance on the Dr. Frankenstein trope, a fictional character who paid with his own life and the lives of his family members for trying to manipulate human nature: 'What is the literary representation of Frankenstein [referring here to Frankenstein's monster—author's comment], a creature brought to life against nature, if not a prototype of in vitro [fertilisation]?', asks Tadeusz Pieronek [2009], a Catholic bishop and an important player on the Polish political scene (on the myth of Frankenstein and the creation of monsters in the discourse of the Polish opposition to IVF, see Radkowska-Walkowicz [2012b]).

Patriarchal technologies

IVF can be perceived as a male technology, interfering with the female body and reinforcing the idea that every woman can and should become a mother (for a survey of the feminist criticism of ART as essentialising and subjectifying women, see Thompson [2002], Stanworth [1987], and Corea [1985]). Support for naprotechnology might seem in line with this aspect of feminist criticism pointing to the patriarchal and technocratic nature of biomedical science, which turns women into the subject of male technological fantasies. At closer look, however, one sees that naprotechnology actually reinforces traditional gender roles, according to which the woman, or more precisely the female body, is responsible for shaping the family. The naprotechnology website (www.naprotechnology.com) supported by the Pope Paul VI Institute for the Study of Reproduction promises to 'Unleash the Power of a Woman's Cycle' and claims that: 'Thirty years of scientific research in studying normal and abnormal states in the menstrual and fertility cycles have unlocked their mysteries'. The key to a couple's happiness, and consequently (in this discourse), to the happiness of the nation (on the relationship between reproductive discourses and nationalism in Poland after 1989, see Radkowska-Walkowicz [2014]) lies in the female body: in surgical intervention, testing, analysing, and describing. Moreover, naprotechnologists emphasise that the treatment should result in fertility, not pregnancy. Unlike IVF practition-

ers, the goal is not to make the woman pregnant but to make her capable of being pregnant. According to Hilgers, '[m]ost medical approaches today bypass the woman's problem or simply override her natural processes altogether. With NaPro we find out why the body is not functioning correctly.'²⁰ To naprotechnology, the perfect female subject is a fertile subject open to conception.

Sometimes, however, the man needs to get tested, too. In naprotechnology:

The analysis of seminal fluid does not violate the dignity of the marital act and does not require masturbation. Seminal fluid is collected during a normal marital act using a special tool called the seminal collection device. Research results show that seminal fluid collected in this natural way has a higher diagnostic value compared to seminal fluid collected through masturbation. Following diagnosis, suitable treatment is undertaken. [Barcentewicz 2009]

Again, the legitimising power of science is apparent. It is not enough to conclude, as one author writing for the influential Catholic weekly *Niedziela* does, that where 'male genetic material must be collected through an act of self-abuse, this alone should be sufficient to dismiss this method of conception . . . Masturbation has nothing to do with motherhood. It is an abnormal practice' [Konik-Korn 2008: 25]. It is also necessary to show that science sanctions those choices which are morally justified, and that morality is a consequence of the natural order, which can be described in scientific terms. But the passage cited above brings us to yet another important issue: masculine dignity. According to the opponents of IVF, male dignity may be threatened by masturbation, especially in the context of a fertility clinic, in a separate room filled with pornographic magazines, an image which is particularly repugnant to conservatives who oppose IVF. This concern for male dignity may be surprising in the context of treating infertility, which is mostly about the female body. The man needs to provide semen, which can be unquestionably humiliating. 'I remember there were some semen tests in a disgusting toilet ... it was so awful and humiliating for my partner that we decided not to go ahead', said one of my interviewees, a patient in a fertility clinic. Nevertheless, it is the women—both in IVF and naprotechnological treatment—whose body is open to examination, hormonal treatment, injections, pharmaceuticals, laparoscopy, hysteroscopy, and so on.

In spite of assurances to the contrary from its advocates, naprotechnology is a patriarchal technology. More than that, it is a technology of control and power. Not only does it have a holistic approach to the woman's body and soul, but it actually attempts to control her entire life. It requires a close relationship between the female patient and an instructor or doctor who exerts control over her health,

²⁰ Quoted from an article titled 'Agents of Change' on the website CatholicCulture.org: <http://www.catholicculture.org/news/features/index.cfm?recnum=37850> (retrieved 20 December 2014).

diet, spirituality, morality, and lifestyle. Above all, naprotechnology clearly assigns women the role of being a mother. The responsibility for procreation and building a family lies with the female body. There is no room for the emancipation of women from their expected role or from technology and power. Notably, the promotion of naprotechnology also figures in Catholic nationalist discourse where a woman's health is secondary to the health of the nation and control over women is the 'logical project' of this discourse [Gal and Kligman 2000: 26].

Conclusion

Naprotechnology reveals the ambiguities that exist in the current Catholic discourses shaping Polish post-transformation democracy. It is also a good example of a complex approach to modernity and the negotiation of meanings in relation to it in post-socialist Poland. Finally, it is an attempt to reconcile very diverse discourses. An alternative to the technological paradigms of biomedical science, naprotechnology offers a conventional medical and pharmaceutical treatment, modern body regimes, biopolitical supervisors and teachers, unconventional medical treatments, and prayer. IVF opponents encourage the use of naprotechnology which—as they emphasise—empowers the woman but also they study women with a modern approach and a clinical gaze designed to enclose her conclusively within the patriarchal power discourse. Moreover, naprotechnology epitomises the specific features of Polish democracy, influenced both by Western secular culture and by official Roman Catholic doctrine [Mishtal 2010; Radkowska-Walkowicz 2014]. The current debate on IVF brings these tensions to the fore: in mainstream media priests and politicians discuss the moral evils of IVF and the effectiveness of naprotechnology based, among other things, on prayer, while at the same time fertility clinics offer all kinds of ART procedures (including surrogacy and egg donation, which are prohibited in many countries).

Many scholars note that the process of democratisation in Poland has been accompanied by a curtailing of women's reproductive rights [Graff 2003; Watson 1993], including the right to choose her infertility treatment method [Radkowska-Walkowicz 2012a]. It is important to note that women, as Nina Yuval-Davis argues, have a special role to play: they are the biological reproducers of the nation [Yuval-Davis 1996]. In post-communist Poland the reproduction of the nation is to a large extent controlled by men (e.g. through gendered legal and other expert practices), especially those affiliated with the Roman Catholic Church, which aspires to be the sole moral authority on what is good for the family and the nation. The Church strongly asserts its opinions on reproduction and gender roles, and gets a lot of exposure in public discourse, law, and politics. Gail Kligman writes: 'Reproduction is fundamentally associated with identity: that of "the nation" as the "imagined community" that the state serves and protects and over which it exercises authority' [Kligman 1998: 5]. As she points out, 'individual, familial, and political interests in reproduction differ so dramatically' [ibid.]; especially

in the face of a demographic crisis, which is a reflection of the state's biopolitics, but is not a significant factor for individual reproductive choices. Those choices, however, are affected by the law and by state policy, which are in their turn both influenced by the Church.

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