Good Parents, Better Babies
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An Argument about Reproductive Technologies, Enhancement and Ethics

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To Marta
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Erik Malmqvist
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CHAPTER 1

Introduction

A Shift From Chance to Choice

Reproduction has always been among the most significant of human activities, and it will no doubt continue to be so for a long time to come. While having children has certainly been imbued with different meanings in different cultures and historical epochs, some things have remained largely invariable. Most importantly, perhaps, reproduction has always been a very chance enterprise. Its outcome has largely been beyond human control, regardless of whether people have actually believed it to be within their power, or rather attributed it to brute luck or divine providence. People have of course not been entirely at the mercy of chance. Whether or not to have children at all has to some degree been open for deliberate decision for a very long time, and much more so since the advent of contraceptives. But the kind of children parents-to-be were to have – girls or boys, healthy or ill, and so on – was until recently not a choice for them to make.

Now this is beginning to change. As a result of a rapidly growing body of genetic knowledge and recent developments in assisted reproductive technologies, prospective parents now have unprecedented possibilities of controlling the outcome of their reproductive efforts. To put the matter simply, it is becoming increasingly more feasible for parents to choose the kind of children that they want. The nature and magnitude of this change should certainly not be exaggerated or overly dramatised. Most parents do not make use of these new technologies, and those who do use them are still very much at the mercy of the uncontrollable and unforeseeable. But we should not be blind to the fact that the range of reproductive choices available has expanded significantly in the wake of scientific discovery and technological invention. This expansion has probably not yet come to an end. Indeed, many believe that we have so far only witnessed its beginning, that much more extensive possibilities for technological control of human reproduction still lie ahead.
This shift “from chance to choice” (Buchanan et al. 2000) has many, and potentially far-reaching, social and cultural repercussions. Not least – and this shall be at the centre of my attention throughout this dissertation – it raises vexing moral questions.

**Four Cases**

Before turning to these questions, let us take a look at four cases that illustrate some of the possibilities and potentials of new and emerging reproductive technologies. The cases are meant to work as a heuristic for the discussions to come. They are hypothetical in the sense that characters and plots have been made up in order to simplify some features and highlight others. They are thus not real, but, except for the last one, they could very well have been real, given current technological possibilities and the legal situation, at least in some countries. Indeed, again except for the last one, the cases exemplify either the intended use of the technologies in question, or uses that reportedly have occurred.

**a) Selection against Severe Disease**

A couple of years into a happy and so far relatively carefree marriage, Peter and Susan contemplate having their first child. Peter, who has been eager to become a father for a long time, has changed to a more stable and well-paid position at the office and believes that the time has come. Susan has always been more reluctant to having children, but she now finds herself enthusiastic at the thought of being a mother. However, the normally joyful decision is mixed with unusually great measures of fear and uncertainty. The reason is that several male members of Susan’s family over the years have suffered from Duchenne muscular dystrophy, an uncommon X-linked single gene disorder. She has a particularly vivid memory of the short and tragic life of her cousin Alex, who already at the age of three did not walk like other children and at the age of ten needed help to get dressed, get in and out of his wheel-chair and turn around in bed at night. Alex died at eighteen, when his lungs gave up, after years of breathing difficulties, uncontrollable muscular contractions, increasing immobility and complete dependence on his family.

After discussing the matter repeatedly with Peter and her parents and thinking it over during a couple of sleepless nights, Susan decides to take a genetic test, which confirms her fear: she is a carrier of the disease. This means that, while not being affected herself, she has a 50 percent chance of
passing on the disease to a male child and a 50 percent chance of passing on her carrier status to a female child (who thus in turn would have an equal chance of passing on the disease or the carrier status to her own children). The couple is devastated by the result of the test, but still feel strongly that they want a child. Peter is convinced that adoption would not be quite the same as having a biological child. Susan thinks that she could consider adoption, but does not want to try for pregnancy and let a prenatal test reveal the genetic status of the foetus. She feels very reluctant to consider abortion in case the foetus should be affected. Neither of the two wants to risk bringing into existence a child with a life prospect like Alex’s.

By recommendation from their doctor, Susan and Peter contact a centre of reproductive medicine at a big city hospital. After thorough counselling at the centre, they decide to request in vitro fertilisation (IVF) and preimplantation genetic diagnosis (PGD) in order to avoid giving birth to an affected child. They are aware that the procedure is demanding and stressful, physically and psychologically, as well as expensive, and that success is far from certain. However, they agree that the goal, a healthy baby, is sufficiently important to them to outweigh these considerations.

After a couple of frustrating failed attempts – the couple is told that there are several stages at which the process can fail – Susan finally gets pregnant after the centre personnel have successfully sorted out a healthy embryo and transferred it to her uterus. Nine months later she gives birth to Robert, a healthy and vigorous baby boy.

b) Sex Selection

Anna and Michael have two daughters, Sarah and Emma, two and seven years old. They are both known to be loving parents and it is with great pride and enthusiasm that they rear their daughters. For Michael, however, there is something missing: he longs for a son. He himself grew up with his parents and three older sisters. He always felt that he and his father, Tom, were especially close, from his early childhood until about a year ago, when Tom died. He feels strongly that he wants a chance of repeating this kind of relationship with a son of his own. Michael has a wonderful relationship to his daughters, of course, but it is just not the same.

Anna and Michael have discussed IVF and PGD for the purpose of selecting a boy. (The technology is more often used to select female embryos when there is a suspicion of an X-linked genetic disease, but may also be used in the opposite way – to choose a male embryo). However, Anna has been very reluctant to this, partly because the IVF procedure would mean a considerable health risk for her and because it is expensive, but also partly
because the idea of choosing and discarding embryos “just doesn’t feel right”. It is not that she does not want a boy. On the contrary, she feels that it would be fulfilling for them as parents to raise both boys and girls and that growing up with a little brother would be a good thing for her daughters too. Unlike Michael, however, she would be happy to “let nature have its course” – to have another baby the usual way, leaving the matter of its sex to be determined by chance. They both agree that they could not possibly manage more than one more child.

After several Internet searches, Michael has recently found a fertility clinic that offers prospective parents a technology called MicroSort, which significantly increases their possibility to select the sex of their child. MicroSort works by separating male from female sperm and is normally followed by intrauterine insemination (IUI), but could also be combined with IVF. Enthusiastic about this newly discovered option, Michael contacts the institute and the couple is eventually scheduled for consultation.

At the consultation they are informed that MicroSort combined with IUI is considerably less risky and invasive than IVF and PGD, as well as less expensive. However, the counsellor carefully points out that there is no guarantee that the resulting child will have the desired sex, only a significantly increased chance. Also, she emphasises that IUI often fails to result in pregnancy and that the procedure may have to be repeated several times. Nonetheless, after thinking the matter through and discussing it thoroughly, Anna and Michael decide to enrol. The procedure appears to be successful and the couple is relieved to eventually learn that Anna is pregnant with a boy. After a rather uncomplicated pregnancy, Christopher – the couple’s third child and first son – is born.

c) Selection for Deafness

While most people consider deafness an uncontroroversial example of disability, Jonathan and Sandra, both congenitally deaf, strongly disagree. They both regard their deafness as constitutive of their identity, and they are proud to belong to a rich and vital deaf community, with a unique language and culture of its own, as well as a growing sense of common identity and political self-awareness. Their pride is underscored by their insistence on referring to themselves as Deaf, with capital D.

Sandra has always regarded herself as culturally Deaf. Her parents were both born deaf and ASL (American Sign Language) was the given form of communication in the family. Sandra learned the language just as naturally as a hearing child of hearing parents learns their spoken language. Apart from exclusion from communication with the world of the hearing,
mastery of ASL became the defining feature of her belonging to the largely linguistically constituted Deaf culture.

For Jonathan, however, things are very different. He was born to hearing parents, who, despite great efforts, never managed to learn more than the basics of ASL. Consequently, communication with them and his sister, not to mention with more distant relatives and friends of the family, was always frustratingly impoverished. The sense of alienation that Sandra felt towards people outside of the Deaf community was for him an inescapable feature of his relationship to his own Mom and Dad. It was not until his parents were persuaded to send him to a residential school for deaf children that this fundamental isolation was broken and the doors of the Deaf culture opened to him. He still regards this as the most important moment of his life.

Sandra and Jonathan are both convinced that they want their future children to be deaf like them. Sandra believes that her happy upbringing and close relationship to her deaf parents depended on herself being deaf. Jonathan is eager to avoid repeating the kind of distance that he experienced vis-à-vis his parents – that is, the deep sense of alienation resulting from not being able to properly communicate – in his relationship to his own children. Deeply convinced about their wish for a deaf baby, the couple take genetic tests, which reveal Sandra’s deafness to be due to a dominant genetic mutation and Jonathan’s deafness to be determined by two copies of a different, recessive mutation. This means that Sandra has a one in two chance to pass on her deafness to a child, a chance which is judged to be unaffected by Jonathan’s genetic mutation.

Jonathan and Sandra are reluctant to leave it to pure chance to have their wish for a deaf child fulfilled. They contact a genetic counsellor about the possibilities of using IVF and PGD in order to select only embryos with Sandra’s genetic mutation. The counsellor is highly surprised at first. She is aware of cases where couples have used these technologies in order to avoid having deaf children, but the idea that they might be used for choosing for deafness had not crossed her mind. She informs the couple that the treatments they request are often unsuccessful, as well as stressful to the woman and expensive. But she also says: “At the end of the day the choice is yours. It is not for us to decide how our clients avail themselves of our services.” Sandra and Jonathan remain convinced that they want to try for a deaf baby by means of IVF and PGD. The process is unusually smooth – the couple is told that they are lucky – and the pregnancy is not worse (nor better) than most others. Eventually, Julia is born. Her parents are delighted and relieved to find out that she is deaf like them.
**d) Genetic Enhancement**

The year is 2030. Carl and Patricia, both in their early forties, have decided to have their second child together. They do not suffer from infertility and neither of them has a family history of genetic disease. In spite of this, and partly because of Patricia’s age, they decided to have their daughter Lisa, now two years old, by means of IVF and PGD, in order to avoid chromosomal abnormalities – “just in case”. A large percentage of the parents of their generation, including several of their friends, have made the same decision. Reproductive technologies have developed rapidly over the past decades and IVF has grown increasingly precise and successful as well as increasingly common and inexpensive.

Encouraged by their positive experience with their first daughter, Carl and Patricia consult the same clinic again. This time they are told that not only can the clinic offer them the tests available a few years earlier; the couple is also informed about the more comprehensive, newly introduced Additional Genetic Options package. The counselling team goes on to explain what the package consists in. The created IVF embryos are screened for common chromosomal abnormalities, and if the couple is at risk of transmitting a single gene disorder, embryos with the mutation in question are sorted out. Also (and this is the novel part), some of the DNA of the embryos is modified prior to embryo transfer. The modifications are aimed at providing the future child with the genetic preconditions of emotional stability, increased resistance to infections and above average stature. The team stresses that while the detection and modification of the involved genes can be done with a high degree of accuracy, the interventions will not by themselves produce the desired traits; environment is just as important as genes. Finally, they assure the couple that the techniques involved are thoroughly tested and safe, as well as legally permitted, although unfortunately still rather expensive.

At first, Patricia and Carl feel a little uncomfortable about this new option; it almost seems like a scenario from some science fiction film. What puts them off initially is not the financial cost – they are comparatively well off – but a rather vague moral apprehension, little more than a “gut feeling”. However, after carefully deliberating the matter together for some time, they decide in favour of the package. They assure each other that they are not seeking a perfect baby; they would love any new child of their own – whether genetically modified or unmodified, normal or disabled – just as much as they already love Lisa. It is just that the world seems so tough nowadays. Patricia and Carl agree that luck is not enough to get where you want: innate and acquired talents are as indispensable as hard work in a society that
seems to be continually growing more competitive. They argue that opting for the package would be strictly in the interest of their future son or daughter; it would increase his or her chances of a successful and happy life. “Besides”, Patricia argues, “even if we don’t do it, many other parents will, and our kid would be disadvantaged if compared to theirs. It wouldn’t be fair.”

Convinced by these considerations, they inform the counselling team about their decision and are scheduled for commencing the IVF procedure promptly. The expectations of everyone involved are high; it is one of the first interventions of its kind that is performed at the clinic. After a complex but successful process of egg extraction, fertilisation, diagnosis, genetic intervention and implantation, as well as a carefully monitored pregnancy, Patricia gives birth to Lisa’s little sister Nancy.

Background

In this section I shall describe the technologies used in the above cases as well as some of the science behind them and some of the laws and policies that regulate them. I will also touch upon a few of the controversies that they have given rise to, although I will postpone all lengthy discussion of substantial ethical issues to subsequent chapters. The purpose of the section is to put the cases into context.

**In Vitro Fertilisation**

The choices in all cases except case b are made possible by *in vitro fertilisation* (IVF), a technology that was first developed for human use in the late 1970s and that is now an established means of overcoming many different kinds of fertility problems.¹ As the name indicates, the technology is used to produce fertilised eggs *in vitro*, i.e. outside of a woman’s uterus. The growth of multiple follicles inside a woman’s ovaries is stimulated by hormone injections. A number of egg cells are then retrieved from the follicles and allowed to mature. They are then mixed with sperm and incubated in a culture medium in order to bring about fertilisation. In cases of male fertility problems, a single sperm cell may be injected directly into the egg, a procedure called *intracytoplasmic sperm injection* (ICSI). The fertilised eggs are allowed to grow into 2-8 cell embryos. One or a few of the embryos are then

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¹ For a description of the IVF procedure, see for instance Pernoll (2001: 783-5).
transferred to the uterus of the would-be mother. If implantation is successful the result is pregnancy.

IVF often produces surplus embryos, which may either be preserved by freezing or discarded. If preserved, they may be used for subsequent pregnancy attempts by the same patients, or donated to other infertile patients or to research. The eggs and sperm used in IVF may be obtained from the couple themselves or from donors. Laws and policies that regulate IVF, embryo and gamete donation, and research on these tissues differ widely between countries.²

**Genetic Disorders**

Genetic mutations play different roles in different forms of ill health.³ Sometimes the mutation or mutations involved in a disease are inherited and sometimes they occur later in life as a result of environmental influences, such as radiation. Most diseases that have a genetic component (e.g. heart disease and diabetes) are the outcome of complex interaction between many different genes and environmental factors.

So-called *monogenic* (or *single-gene*) disorders, on the other hand, are caused by mutations in a single gene. Such conditions may be *autosomal* or *sex-linked*, depending on whether the gene is located on one of the autosomes (chromosome pairs 1 through 22), or on one of the sex chromosomes (the X- or, more rarely, the Y-chromosome). Monogenic disorders are inherited according to predictable patterns. *Autosomal recessive* conditions (e.g. cystic fibrosis) affect only *homozygotes*, i.e. those who have two copies of the gene in question, one inherited from each parent. A person with one copy of the gene, a *heterozygote*, is a *carrier*; she may pass on the gene to future generations, but is not affected herself. By contrast, *autosomal dominant* conditions (e.g. Huntington’s disease) are expressed also in heterozygotes, in those who have inherited one copy of the gene from either parent.

*Sex-linked* disorders differ in their pattern of inheritance and their expression between males and females. This is because males have one X-chromosome, inherited from the mother, and one Y-chromosome, inherited from the father, while females have two X-chromosomes, one from each parent. Duchenne muscular dystrophy (the

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² For an overview with a focus on European regulation, see Soini et al. (2006).
³ The following is a classification of genetic disorders of the kind that may be found in any standard textbook on medical genetics. I have relied on Young (2005).
disease in case a) is an X-linked, recessive disorder. This means that sons who inherit the mutation from carrier mothers are affected, while daughters who inherit the mutation are unaffected carriers.

*Chromosomal disorders* are the result of abnormalities in chromosome structure or number. Many numerical abnormalities (aneuploidies) lead to miscarriage of the affected foetus, but some (e.g. trisomy 21, the cause of Down syndrome) are compatible with survival. Some chromosome abnormalities are inherited, but most occur accidentally as an error in cell division, for instance when sperm or eggs are created.

Finally, some inherited disorders are caused by mutations in *mitochondrial* DNA, rather than in the DNA of the cell nucleus. As all the mitochondria are inherited maternally such disorders can only be transmitted from mother to child.

*Preimplantation Genetic Diagnosis*

There are different ways for would-be parents at risk of transmitting genetic disorders to avoid having affected children. Adoption is of course one possibility. Another alternative is to use IVF or intrauterine insemination (IUI) with donor eggs or sperm. They may also try for pregnancy through sexual intercourse and abort the foetus, should a prenatal genetic diagnosis reveal that it is affected. A more recent alternative, developed in the late 1980s, is *preimplantation genetic diagnosis* (PGD). The technology is often presented as a way for high-risk couples to avoid having affected children, without having to rely on abortion, which is stressful to all and perceived as immoral by some (Braude et al. 2002).

PGD is mainly offered to couples at risk of transmitting a mono- genic disorder or a structural chromosomal abnormality. It is used to identify a specifically targeted disorder, either in embryos produced by IVF or in the eggs retrieved for IVF, for the purpose of only transferring unaffected embryos to the uterus. When the analysis is to be performed on embryonic cells, *cleavage stage biopsy* is used to remove one or two cells from an 8-12 cell embryo. Alternatively, the first polar body of the unfertilised egg may be removed, a procedure called *polar body biopsy*. Sometimes the second polar body, which emerges at fertilisation, is also used in order to confirm the analysis. Polar body

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4 My outline of the procedures involved in PGD draws on the review in Braude et al. (2002).
biopsy can only be used for obtaining information about the mother’s genotype.

The method used for the genetic analysis depends on the targeted disorder. *Polymerase chain reaction* (PCR) is used to amplify a segment of DNA for the purpose of identifying a particular single-gene disorder. *Fluorescent in situ hybridisation* (FISH) is used to detect chromosomal rearrangements and (where X-linked disorders are suspected) to determine the sex of the embryo. This method consists in introducing DNA probes that attach to the targeted chromosomes. The probes shine in different colours when exposed to fluorescent light, making possible the detection of abnormalities in chromosome number and structure.

Embryos that are unaffected by the targeted disorder and that otherwise appear normal are then selected for transfer to the woman’s uterus. If there are surplus unaffected embryos, these are often frozen and saved for subsequent IVF rounds. This may be important, as the process often fails to lead to viable pregnancies.5

Sometimes the term PGD is also understood as including preimplantation genetic screening (PGS or PGD-AS). The latter procedure is not used to identify a particular genetic disorder in the *in vitro* embryos, but to screen them for aneuploidies. It is primarily indicated for women above a certain age and women with a history of recurrent miscarriages or repeatedly unsuccessful IVF. The purpose of the screening is to increase the chances of viable pregnancy for such women.6

Different laws and policies apply to PGD in different countries. In the United States, PGD is unregulated at federal and state level. The IVF clinics themselves determine which uses they offer, but professional organisations have some oversight. (Baruch et al. 2008) Within the European Union, regulation of PGD differs very much between states. In Italy the technology is completely prohibited and Germany only permits it in conjunction with polar body biopsy,

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5 Success rates for assisted reproductive technologies are debated. The probability of a successful pregnancy for an individual woman depends on a number of factors, particularly her age. According to recent figures from the Human Fertilisation and Embryology Authority, average UK IVF success rates range from 29.6% for women under 35 to 0.8% for women over 44 (HFEA 2007/8).

6 According to one recent study, sorting out aneuploid embryos does in fact increase those chances (Munné et al. 2005). However, a recent review of other studies suggests that more research is needed before such a conclusion can be drawn (Shahine & Cedars 2006).
while other countries (e.g. the UK and Belgium) have more permissive policies (Soini 2007). In Sweden, PGD is only legal for persons at high risk of transmitting monogenic or chromosomal disorders, and for the purpose of avoiding such transmission. Special permission is required for so-called PGD-HLA typing.7 (Lag [2006:351] om genetisk integritet mm, 4 kap, 2 §)

**Sex Selection by Sperm Sorting Technology**

Different reproductive technologies make it possible for parents-to-be to try to choose the sex of their future child. For several decades it has been possible to determine the sex of a foetus through ultrasound or amniocentesis, and to subsequently abort it, should it be of the undesired sex.8 A more recently developed alternative is to use PGD to analyse the chromosomal constitution of IVF embryos, and choose to implant only embryos with the desired pair of sex chromosomes.9 The purpose of such an analysis is normally to sort out embryos affected by X-linked genetic disorders. However, according to a recent survey many US clinics offer PGD also for non-medical sex selection (Baruch et al. 2008).

Both these alternatives have major drawbacks. Abortions are stressful and involve risks, and many have moral qualms about them. Also, it is obviously far from certain that any subsequent pregnancy yields a child of the desired sex. As for PGD, it relies on IVF, a cumbersome procedure that poses various risks to the woman’s health, and that may have adverse effects on the future child.10 Further, IVF and PGD are expensive technologies, which makes them virtually unavailable to those who are not well off and cannot rely on public

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7 This is when PGD is used to select embryos that are not only free from a genetic disease, but that also have a tissue type compatible with that of an affected sibling. The purpose is to use stem cells derived from the umbilical cord blood of the created child to treat the affected brother or sister. See Spriggs (2005) for a discussion of this controversial “saviour sibling” scenario.

8 Sex selection through prenatal testing and abortion has been widely discussed, in particular by feminists and with reference to countries where such practices are widespread. See Moazam (2004) for an overview of some of the arguments.

9 This possibility has also attracted bioethicists’ attention; see for example Robertson (2003).

10 Some believe that the PGD procedure itself may also involve risks to the child. The question of risks associated with IVF, PGD and related technologies is a controversial topic and subject to much research. See Soini et al. (2006) for an overview.
funding or private insurances for financing.\textsuperscript{11} They also typically result in left-over embryos with uncertain destinies, which some find morally problematic.

These considerations are powerful deterents for would-be parents who might consider selecting the sex of their child negatively trough abortion or positively through IVF and PGD. There is however a third option, which seems both simple and affordable by comparison, and which is less likely to give rise to moral misgivings. This option involves using a technology called MicroSort, which is currently being clinically tested, to separate sperm with Y-chromosomes (“male” sperm) from sperm with X-chromosomes (“female” sperm).\textsuperscript{12} The technology is not capable of completely separating the two kinds of sperm, but may reportedly increase the proportion from about 50\% to 88\% and 73\% respectively depending on the kind sorted for (the higher number is for X-bearing sperm). The enriched sperm can be used to inseminate the would-be mother or to create embryos for subsequent implantation by means of IVF with ICSI. The former procedure is less likely to result in pregnancy than IVF/ICSI, but is both less expensive and less stressful to the woman, and also poses fewer health risks.\textsuperscript{13}

The institute that currently provides MicroSort grants access to the technology for two purposes: to reduce the risk of transmitting X-linked genetic disorders and for “family balancing”, i.e. in order to help a couple that already has a child or children to increase their chances of having a child of the underrepresented sex. Only married couples are allowed to enrol, but they may use donor sperm or eggs.

\textsuperscript{11} The availability of IVF is often limited to those who have access to publicly funded health care or private health insurance too. Many private insurance policies do not cover infertility treatment and in countries where public funding is available for IVF, it is often limited to a small number of attempts.

\textsuperscript{12} MicroSort is currently performed by The Genetics and IVF Institute in Virginia, USA. The information about the technology presented here is taken from the institute’s website, http://microsort.net/ (accessed 14 January 2008).

\textsuperscript{13} The Genetics and IVF Institute’s website reports a 15.6\% pregnancy rate for their own and their collaborators’ IUI cycles, as compared with a 32\% pregnancy rate for IVF (http://microsort.net/results.php, accessed 14 January 2008). The institute’s fees for an IUI cycle, including MicroSort, range from $3765 to $5415 (http://microsort.net/fees.php, accessed 14 January 2008). Their fee for an IVF cycle is $8900, excluding $3400 for MicroSort and $1850 for ICSI (which is required) (http://www.givf.com/financialprograms/pricing.cfm, accessed 14 January 2008).
PGD for Deafness

A 2002 news report about a deaf lesbian couple that used sperm donated by a deaf friend to deliberately conceive and give birth to a deaf son aroused much debate (Dennis 2004). The couple did not use any genetic test. However, commentators were quick to point towards the possibilities of selecting against hearing by means of selective abortion following prenatal diagnosis and for deafness by means of PGD (Savulescu 2002). Indeed, bioethicists had anticipated and discussed these possibilities, as well as the possibility to select for achondroplasia (a common cause of dwarfism), even before the 2002 controversy (Davis 1997). A recent survey confirms that PGD for disabilities like deafness has in fact been provided by a small percentage of US IVF clinics (Baruch et al. 2008). In the UK, spokespersons for deaf people recently defended deaf parents’ right to make such choices, criticising proposed legislation that would make them illegal (Templeton 2007).

Many are no doubt puzzled by the use of PGD described in case c. Deafness is, after all, usually regarded as a disability, as something that we have reason to avoid. However, drawing on accounts of deafness and Deaf culture, I have tried to illustrate that it may make sense for a couple like Sandra and Jonathan, who regard themselves as culturally Deaf, to wish for a deaf child. There are indeed many deaf, in the US and the UK at any rate, who do not regard themselves as disabled and who do not wish to be rid of their condition, but who rather insist on being treated as a cultural and linguistic minority (Dolnick 1993, Dennis 2004). For this reason, Deaf activists are critical of cochlear implants, which they perceive as a threat to their culture (Tucker 1998). Also, some Deaf prefer children who are deaf like them, for reasons like my imagined couple’s (Dolnick 1993: 38, Dennis 2004: 894-5). One study suggests that a small minority among them would even consider aborting a foetus found to be hearing through prenatal diagnosis (Middleton et al. 2001).

However, the same study reveals that deaf people (including the culturally Deaf) are much more likely not to want to use prenatal tests for deafness at all, or to use them to avoid having deaf children, than to use them for that purpose (Middleton et al. 2001). Also, it is impor-

14 For my construction of case c, I have found Edward Dolnick’s (1993) description of deafness, Deaf culture, and the communication difficulties facing deaf people and their hearing parents especially useful. I have also drawn on Dennis (2004) and Tucker (1998).
tant to note that far from all deaf people identify themselves as Deaf, and that many deaf are wary of the notion of Deaf culture and of Deaf activists (Tucker 1998). One should therefore be careful not to regard Jonathan’s and Sandra’s wish for a deaf child, and their determination to fulfil that wish by means of sophisticated genetic technologies, as representative of deaf people in general.

Further, a choice like the one described in case c is not available to all, or perhaps not even to very many, deaf parents who might want a deaf child. To begin with, many causes of deafness, e.g. trauma and various infections before and after birth, are not genetic.\textsuperscript{15} It has been estimated that roughly half of all deafness can be attributed to genetic causes. Some kinds of inherited hearing loss are part of genetic syndromes that also involve other, more or less severe, medical problems. There are many such syndromes, and they are inherited according to different patterns. 70-80 \% of genetic deafness is however nonsyndromic, i.e. unaccompanied by other signs or symptoms. This kind of deafness is usually due to a mutation in a single gene, but many different such mutations have been identified. Some of them are inherited according to an autosomal dominant pattern and others are autosomal recessive, while a small percentage are X-linked or mitochondrial. The commonest form of nonsyndromic genetic deafness is caused by an autosomal recessive mutation in the GJB2 gene.

In order for the couple’s choice to be possible we have to suppose that a genetic test for the dominant mutation that causes Sandra’s deafness is clinically available.\textsuperscript{16} Note that were it not for the fact that her deafness was caused by a dominant mutation, the couple would have little reason for wanting to use PGD. If they were deaf due to the same double recessive mutation they would be almost certain to pass on the condition to their child. If, on the other hand, their deafness were caused by different recessive mutations, their child would likely

\textsuperscript{15} I draw in this paragraph on the overview of genetic causes of deafness in Nance (2003).

\textsuperscript{16} I have not found any PGD provider that actually offers such a test for dominant non-syndromic deafness. However, several providers offer tests for recessive mutations that cause deafness. For instance, the Genesis Genetics Institute lists three such disorders on their website (http://www.genesisgenetics.org/pages/services.html, accessed 15 January 2008). And prenatal testing is available for at least one inherited dominant mutation that causes non-syndromic deafness (http://www.geneclinics.org/profiles/dfna3/details.html, accessed 15 January 2008). The same genetic test could presumably be used on preimplantation embryos as well (Baruch et al. 2004: 3).
be a hearing carrier of both mutations. If their deafness were non-genetic in origin they could not transmit it, and if it were syndromic they would probably be reluctant to do so.\textsuperscript{17}

In many countries, including Sweden, there are laws or policies that prohibit selection for deafness or other disabilities by means of PGD. An important exception is the US, due to the situation described earlier.

\textit{Inheritable Genetic Modification}

Unlike the other technologies described in the four cases, the technology that allows Carl and Patricia to modify the genetic bases of disease resistance, height and emotional stability in their future child is not currently available, but merely discussed as a future possibility. This kind of intervention, which is variably referred to as \textit{germ-line gene therapy/transfer} (GLGT) and \textit{inheritable genetic modification} (IGM), is often distinguished from \textit{somatic cell gene therapy/transfer} (SCGT) (Anderson 1985). The latter procedure, which has been widely tested as a treatment of genetic disorders, involves introducing new genetic material into the non-reproductive body cells of a patient in order to correct the effects of a defective gene.\textsuperscript{18} The effects of such interventions are restricted to the patient. The former type of intervention, by contrast, alters the genes that are passed on to future generations.

A number of methods for introducing inheritable genetic changes are being used in the creation of transgenic animals. Some of these methods are used on embryos, others on sperm or unfertilised eggs, yet others on the cells from which these develop. Most of them utilise the same gene transfer technologies that are used for SCGT and some involve cloning or stem cell technology. None of the methods is at present nearly as safe, accurate and efficient as would be required for

\textsuperscript{17} In light of the fact that most deaf couples who might want deaf children would have little help of PGD, one may wonder whether the attention that this possibility has attracted, both in the news media and in academic bioethics is warranted. However, there are perhaps more likely possibilities than the ones I have considered above; people who are deaf due to recessive mutations may for instance use IVF with gametes from donors with the same condition and use PGD in order to select affected embryos. I have chosen to include PGD for deafness in my discussion because it has become an important theme in bioethical discourse about new and emerging reproductive technologies.

\textsuperscript{18} SCGT has given rise to a large and complex bioethical debate (for an overview, see Juengst & Grankvist 2007). I shall not in this dissertation address that debate.
use on humans. A major problem with most of them is that the animals created are mosaic or chimeric, i.e. have cells with different genotypes. Generating animals that have the desired genetic modification present in all cells and that are homozygous therefore involves breeding the suitable offspring initially created over at least two more generations, while disposing of a number of unavailable or otherwise unsuitable offspring in the process. (Rasko & Jolly 2006: 25) From this perspective it is hardly surprising that IGM on humans is illegal in many countries.

If IGM were to develop sufficiently to permit human clinical use, its primary purpose would probably be to allow at-risk parents to avoid passing on severe monogenic disorders to their children. In certain cases, such as when both parents are homozygous for a recessive disorder, IGM may be the only possibility of having an unaffected child genetically related to both parents (Walters & Palmer 1997: 81). Such cases are however very rare. Usually there are other alternatives available to at-risk parents. They may for instance use PGD or prenatal diagnosis and selective abortion, or, if the genetic relation to the child is not crucial to them, they may opt for gamete donation or adoption. (Scott 2006)

Disease prevention aside, IGM has attracted considerable attention for its alleged potential for enhancement of normal, non-disease characteristics in future persons, i.e. the kind of use illustrated in case d. Some are concerned that the development of IGM will be driven primarily by the demand for such uses (Paren 2000). We have seen that other technologies make possible selection for certain non-disease traits, like sex, and we can imagine that the possibilities for selection may expand in the wake of growing knowledge in genetics.

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19 For recent overviews and assessments of these methods, see Friedmann (2004) and Rasko & Jolly (2006).
20 The difference between mosaicism and chimerism is that in the first case the genetically different cells originate from the same fertilised egg, while in the second case they originate from different fertilised eggs.
21 Swedish legislation, for instance, prohibits medical treatment and research on humans that introduces inheritable genetic changes (Lag [2006:351] om genetisk integritet m.m., 2 kap, 4 §). Similarly, in the UK the Human Fertilisation and Embryology Act 1990 rules out “altering the genetic structure of any cell while it forms part of an embryo”, both for treatment and research (Schedule 2, arts. 1(4) and 3(4)). In the US, there is no explicit ban on research into IGM, and if clinical applications were to be developed, these would probably be offered by private, unregulated IVF clinics (Frankel & Chapman 2003: 329). However, proposals for IGM research are not presently considered for federal funding (NIH 2002).
Such choices are however always made from a range of combinations
of genes present in the genetic parents. Some suggest that the greater
potential of IGM lies in its promise to “allow prospective parents to
go beyond their own genes” (Silver 2000: 67).

Even if the great technical hurdles that stand in the way for safe
and reliable clinical use of IGM were to be overcome, it would still be
unclear what could be achieved by the technology. Complex non-
disease traits are the outcome of an exceedingly intricate interplay
over time between different genes and between genes and environ-
mental factors. As news reports constantly remind us, behavioural
 geneticists are discovering correlations between genetic variation and
variation with respect to particular phenotypic traits at a fast pace.
But that is a far cry from explaining traits and behaviours in groups or
individuals. And it is even further from allowing us to manipulate a
desired trait in a future person by manipulating her genes. Nonethe-
less, some believe that IGM may some day allow us to enhance traits
like “emotional stability, intelligence, or longevity” (Hood 2000: 17)
in our offspring.

**General Aim and Scope**

The above four cases were introduced in order to raise questions.
They were meant to provoke a certain sense of moral perplexity, to
illustrate some of the far-reaching moral issues that new and emerg-
ing reproductive technologies give rise to and to indicate the need for
reflection on these issues. Indeed, much reflection on and debate
about scenarios of the kind described above has already taken place.
As we shall see, a considerable amount of bioethical literature has
been dedicated to analysing the ethical, social, existential and legal
implications of the newly acquired and growing possibilities of in-
tervening in human procreation.

My dissertation is a contribution to that area of bioethical re-
search. It addresses a complex of moral questions raised by the tech-
nologies that I have just introduced and described. The focus of my
discussion will be on the moral implications of the increasing possi-
bilities to decide what kinds of people will be brought to existence.

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22 For an illuminating overview of recent advances in behavioural genetics that
cautions against expecting too much from it in terms of explanation, see Parens
(2004).
From the point of view of the parents deciding about the technologies, they represent an increased possibility to choose the characteristics of future persons – and not just any future persons, but their own children. To what extent are these choices ethically justifiable? That is the most fundamental question that this dissertation addresses. However, that question is overly broad to grapple with directly. It has to be addressed by way of more specific questions if we are to have any chance to arrive at a meaningful answer. I will return to this specification in the next chapter, since it presupposes some of what I say there about moral intuitions and methodology.

It is important to distinguish this dissertation’s main question from another type of question that bioethicists frequently deal with. It is often assumed, implicitly or explicitly, that bioethics ought to contribute to sound laws and policies – professional and institutional norms and so on – on its subject matter. Consistent with that assumption, I will address the following question: once we have an account of the ethical justifiability of would-be parents’ choices of the characteristics of their future children, how should that account inform policies? Note that I shall treat this policy question as secondary to the main ethical question of this dissertation. First, an answer to it obviously presupposes an answer to that question. Second, while my attempt to answer the main ethical question is allowed to determine the structure of the whole dissertation, I discuss the policy question separately, briefly and in general terms, in the Appendix. My contribution to the debate about policies on reproductive technologies will thus be very modest.23

**Morality, Ethics, Bioethics**

The description of my aim should give some idea of the nature of my inquiry. However, the description mentions things like moral questions, ethical justifiability and the bioethical debate in a way that is

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23 The secondary and limited place assigned to policy issues in this dissertation does not reflect a belief that such issues are less important than ethical and other philosophical questions. It is rather expressive of a certain caution as to the extent to which philosophy alone is capable of dealing with such issues (cf. Brock 1987). While philosophers often do not hesitate to criticise or propose particular policies, the more principled question of the relationship between moral philosophy and policy is rarely discussed in any systematic way (one exception is Kymlicka 1993). I shall assume, however, that sound policies do not flow directly from philosophical analyses.
perhaps not sufficiently clear. A few words on the key triad of terms, ‘morality’, ‘ethics’ and ‘bioethics’, are thus in order.

In what follows I will discuss moral questions. Moral questions are, roughly, questions about right and wrong actions, good and bad character, the nature of the good life, and so on. My dissertation is a work in ethics, which is conventionally described as the systematic study of morality. Ethicists may study morality empirically, by investigating people’s actually existing moral values, beliefs and experiences. However, this dissertation belongs to ethics as a philosophical discipline; I will approach moral questions raised by reproductive technologies through philosophical analysis and argument.24 (I will describe my method more in detail in the next chapter).

Philosophical ethics is often divided into normative ethics and meta-ethics. The purpose of normative ethics is to elaborate sound judgments on moral issues. It tries to deliver substantial answers to questions of the following type: Should promises always be kept? Under what circumstances, if any, is it right for a doctor to help a patient to die? How are we to justly distribute scarce resources in health care? Meta-ethics is on a higher level of abstraction. It does not deal directly with normative questions, but, as Michael Smith (1994: 2) puts it, with questions about normative questions, such as the meaning of moral terms (like ‘should’), the nature of moral judgment and the justification of moral beliefs.

It should be clear from the above description of the aim of this dissertation that it is mainly a study in normative ethics. However, I will also discuss metaethical issues occasionally, in the next chapter for instance the question about justification in ethics. Further, the dissertation belongs primarily to practical or applied ethics (a subcategory of normative ethics), since it addresses particular, concrete moral questions, rather than discussing or attempting to develop moral theory. Also, it could be regarded as a work in bioethics, since it addresses moral questions raised by biological science and medicine.

24 One should be careful not to overemphasise the distinction between empirical ethics and philosophical ethics. Empirical ethics is sometimes combined with philosophical conceptual analysis in a mutually illuminating way (Zeiler 2005).
Outline of the Dissertation

Chapter 2 is devoted to methodological and related meta-ethical issues, in particular the nature of justification in ethics and the role of moral intuitions in such justification. I describe what I believe is a commonly held moral intuition about the use of reproductive technologies. I also pose two questions which are to guide the discussion in the subsequent chapters: how is this intuition to be understood, and is it justifiable? In Chapter 3 I discuss two central issues in the bioethical debate about reproductive technologies: the moral status of the embryo and the so-called Non-Identity Problem. The discussion of these issues does not directly answer the questions posed in Chapter 2, but it indicates two different paths that one might take in the search for an answer. The first, consequentialist, path is explored in Chapter 4. There I discuss the impact of reproductive technologies on the autonomy and freedom of those that they help create. I conclude that neither of these concepts can be used to fully answer the dissertation’s central questions.

The subsequent four chapters are devoted to elaborating an alternative, non-consequentialist approach to these questions. In Chapter 5 I discuss the concept of instrumentalisation as it appears in three different philosophical theories: Kant’s moral philosophy, Heidegger’s critique of modern technology and Jonas’s ethics of responsibility. I suggest that instrumentalisation takes us some way towards understanding the intuition, but that it raises further questions that must be answered before one can judge whether it is justified or not. In search for an answer to these questions I turn to Aristotelian practical philosophy. In Chapter 6 I elucidate, by critically examining a virtue-ethical approach to the ethics of reproductive technologies, the Aristotelian concepts of practice and practical wisdom. In Chapter 7 I employ these two concepts to analyse the context in which such technologies are used, the practices of medicine and parenting, and the difficulties and dangers that pertain to choices within this context. This analysis makes it possible to return, in Chapter 8, with more clarity than before to the issue of instrumentalisation. The discussion results in a combined account of instrumentalisation and practical wisdom in medicine and parenting, which, I suggest, allows us to understand the intuition and to address the question of its justifiability.

Some implications of my argument for policies on reproductive technologies are briefly discussed in the Appendix.
CHAPTER 2

Methodological Discussion and Specification of the Aim

Introduction

Where should a normative, philosophical inquiry into the ethics of reproductive technologies, such as the one that I have decided to embark upon, begin, and how should one go about conducting such an inquiry? These questions are in fact closely related. In this chapter I shall choose and discuss my point of departure. I will also describe the method that I will use, and discuss related, more general methodological and epistemological issues. In the course of my discussion I will pose the questions that are to guide my subsequent analyses, and relate them to the aim outlined in Chapter 1.

Intuition, Reason and Reflective Equilibrium

Starting Point: An Intuitive Moral Distinction

Let us return to the cases sketched in Chapter 1. As I have already said, they seem to appeal to our moral sentiments; they present themselves as something about which we can and should have beliefs about right and wrong, good and bad. To use a slightly more technical term, they trigger our moral intuitions. It is important, however, to note the differences between the cases. They all seem to be suitable objects of moral judgement, but they seem to trigger moral intuitions that are, to some extent at least, different. Choosing the genetic basis of enhanced emotional stability and high stature in a future child (as in case d) does not seem morally equivalent to choosing a child free from an agonising and severely disabling hereditary disease (as in case a). I shall take this intuitive difference as the point of departure for my reflections about the ethics of reproductive technologies.
Moral intuitions tend to be vague, and this one is certainly no exception. Also, people are admittedly bound to differ to some extent in their intuitive reactions to different uses of reproductive technologies. But this does not mean that the intuitive difference between the cases is an arbitrary choice of starting point. It does not merely reflect a personal moral belief. In fact, I think that there is a fairly common and fairly strong presumption that using such technologies for the purpose of avoiding severe disease, as in case a, is morally less problematic than the uses illustrated by the other cases, in particular case d.

First, empirical research seems to indicate views roughly corresponding to this intuition, both among people in general and among medical professionals. According to one study, Swedes are deeply ambivalent about gene technology (Westerlund 2002). On the one hand, people are strongly inclined to reject that kind of technology, often even categorically, while on the other, they tend to welcome its therapeutic possibilities. A British study dedicated to lay people’s ethical evaluations of non-medical sex selection demonstrates a consensus among participants that there is a moral difference between using PGD for that purpose and using it to select against disease (Scully et al. 2006). Similarly, a study of the moral views of Swedish, British and Italian geneticist and gynaecologists shows that one important concern among them is that PGD should only be used for proper medical reasons (Zeiler 2005).

Also, the presumption about a moral difference between avoiding (severe) disease in future people and choosing other characteristics for them seems to harmonise with various policies, policy recommendations and pieces of legislation regarding reproductive technologies. For instance, we have seen that Swedish legislation only permits PGD for the purpose of avoiding severe disease. Similar limitations obtain in many other European countries (Soini 2007: 317-8).

However, my main reason for taking as point of departure the intuition that I have described is that it has haunted bioethical discussions about reproductive and genetic technologies for a long time, and continues to haunt them. Many have been tempted to draw a principled moral distinction between using these technologies to avoid disease and using them for other purposes. One early and much-cited example is W. French Anderson, who distinguishes between the insertion of genes that “result in correcting a genetic defect” (in the patient or the patient’s offspring, depending on whether the target is somatic cells or germ-line cells) and “the insertion of a gene to try to ‘enhance’ a known characteristic” (Anderson 1985:}
A number of more recent commentators, too, have elaborated sustained arguments against “non-medical” or “enhancement” uses of genetic and reproductive technologies, while defending their use in order avoid disease. Notable examples are the prominent philosopher and social theorist Jürgen Habermas (2003), the influential President’s Council on Bioethics (2003) and the well-known political philosopher Michael Sandel (2007).

Many others have disputed that the distinction that these authors try to draw carries any moral weight (e.g. Kitcher 1996, Savulescu 2001, Agar 2004, Glover 2006, Harris 2007). It is even arguably the case that the alleged distinction is more often criticised than defended in contemporary bioethical debate. When I say that the intuition that there is such a distinction haunts bioethics, then, I obviously do not mean that everyone supports it. Rather, I mean that it is the subject of fierce controversy and that it keeps asserting itself even in the face of heavy criticism. Indeed, one reason why I believe that many share it, and one reason why I think it is an interesting starting point, is the perceived need among bioethicists to dismiss it over and over again.

The debate over the distinction is complex, not least because it raises difficult conceptual questions\(^\text{25}\), and because it is merely part of a more general, multifaceted discussion about enhancement uses of medical technologies.\(^\text{26}\) I shall return to several aspects of the debate about the distinction and I therefore refrain from reiterating it here. The point for now is that the intuition that the four cases were meant to elicit, an intuition that I believe is rather widely shared, is reflected in that debate too.

\(^{25}\) Those who are critical of the thought that avoiding disease in future persons is morally different from enhancing them also sometimes question whether the distinction is conceptually sound. This is a difficult question because it touches upon the large debate within philosophy of medicine on how to define core medical concepts, like health and disease. For a subtle discussion of the conceptual difficulties involved in the treatment/enhancement distinction in genetic medicine, see Juengst (1997).

\(^{26}\) Many of the authors referred to above present their arguments for or against enhancement uses of reproductive technologies as parts of arguments about the ethics of enhancement in general. For an introduction to the “enhancement debate”, see Parens (1998).
The Role of Moral Intuition in Ethics

Here the question arises what weight, if any, we should assign to our intuitive reactions to certain uses of reproductive technologies. This is really a specific variant of the more general question about the role of intuition in moral argument and ethical justification. That question has been a source of controversy in recent discussions about the ethics of reproductive technologies. Much of the debate has circled around Leon Kass’s (1997) appeal to what he calls “the wisdom of repugnance” as an argument against human reproductive cloning. The argument is that the intuitive repulsion we feel at the prospect of cloning humans in itself, without rational support, provides us with very strong (though perhaps not sufficient\textsuperscript{27}) grounds to ban it, and that this is enough to put the burden of moral proof on its proponents. Kass (1997: 20) writes:

In crucial cases [...] repugnance is the emotional expression of deep wisdom, beyond reason’s power fully to articulate it. Can anyone really give an argument fully adequate to the horror which is father-daughter incest (even with consent), or having sex with animals, or mutilating a corpse, or eating human flesh, or even just (just!) raping and murdering another human being? Would anybody’s failure to give full rational justification for his or her revulsion at these practices make that revulsion ethically suspect? Not at all.

Kass’s critics generally object to the non-rational character of his argument. The suggestion that intuitive disgust trumps reasoned argument seems to exclude opposition even before the opponents enter the discussion; it seems like argumentative cheating (Agar 2004: 56). A related and rather obvious objection (of which Kass himself is aware) is that morally loaded emotions often seem to offer poor moral guidance. If pure intuition is the highest moral authority, how could we condemn, say, racists’ revulsion concerning interracial marriage?

\textsuperscript{27} Kass himself does not seem convinced that pointing towards his own emotional uneasiness is enough to settle the issue (although some of his critics have understood him as suggesting just that; Macklin 2006: 38). Most of his essay is an elaboration of more reason-based arguments against cloning. He claims that “[t]he wisdom of our horror at human cloning can be partially articulated” (Kass 1997: 21).
(Macklin 2006: 39) The objections converge on the more general question: if Kass is right, how could we ever settle moral disputes, given the fact that what people find morally repugnant diverges considerably? (ibid.) I think that the lesson to be learned from the debate about “the wisdom of repugnance” is that if we want to engage in reasoned ethical argument about biotechnology, we cannot accept pure intuition as a source of overriding moral wisdom. Since this is the kind of argument that I want to make in this dissertation, I have to take a position different from Kass’s (or, at any rate, the position that his critics attribute to him).

These considerations seem to warn us about letting intuitive moral judgment play too large a role in ethical discussions. On the other hand, it is common philosophical practice to argue against an ethical theory on the grounds that it yields conclusions that run counter to our moral intuitions or to the feelings or pre-theoretical judgments that morally serious persons normally have or make.28

But is this practice sound? In a recent paper, Peter Singer (2005) argues that it is not. Singer’s point is, roughly, that since moral intuitions simply reflect our biological inheritance, it is unclear why we should give them any normative weight.29 He supports his argument by citing recent research in psychology and neuroscience, which investigates people’s responses to different versions of the familiar “trolley problem”.30 In the first version of the problem, the death of five people (strangers to the agent) by a runaway trolley can only be avoided by throwing a switch (located at some distance from the track) that diverts the trolley onto a sidetrack, thereby killing a different person (also a stranger). In the second version, the trolley cannot be diverted, but it can be stopped (and the five people saved) by physically pushing a large stranger onto the track, thereby killing him. People tend to approve of killing one person instead of letting five die in the first case but not in the second, and the empirical find-

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28 See Williams (1973) for a well-known and subtle critique of utilitarianism in this vein.
29 This could be regarded as a parallel to Singer’s suggestion in a much earlier paper that moral intuitions are suspect because they “are likely to derive from discarded religious systems, from warped views of sex and bodily functions, or from customs necessary for the survival of the group in social and economic circumstances that now lie in the distant past” (Singer 1974: 516).
30 The problem probably originates from a paper by Philippa Foot (2002b) first published in 1967. It is more extensively analysed by, among others, Judith Jarvis Thomson (1985), who elaborates the particular versions of the problem that Singer discusses.
ings indicated more emotional activity in the brain when people were asked to make a judgment on the second case. The minority that concluded that it would be right to sacrifice the stranger in the second case did so in spite of their emotional reaction and after longer deliberation (accompanied by a higher amount of cognitive brain activity) than those who concluded that it would be wrong. (Singer 2005: 339-42)

Singer claims that, from a moral point of view, there really is no difference between the cases and that the stronger emotional aversion to the second case is to be understood as arising from evolved responses to situations familiar to our biological ancestors, while evolution has not equipped us with an emotional response to the distanced killing in the first case. “But what is the moral salience of the fact that I have killed someone in a way that was possible a million years ago, rather than in a way that became possible only two hundred years ago? I would answer: none.” (Singer 2005: 348) The upshot of the argument is that moral intuitions are not to be trusted; moral judgment needs a rational rather than emotional foundation.

I think that moral intuitions are more difficult to do without than Singer wants to believe, especially if the alternatives are considered. Scepticism is an unattractive option if we want to be able to engage in reasoned argument on moral questions and, as Singer (2005: 349) himself notes, many are highly doubtful of the long-standing philosophical project of founding ethics on rationally indubitable “first principles”. Even the more reasoned answer to the trolley cases – the one that Singer finds to be correct, i.e. that one person should be sacrificed for the sake of the many in both cases – seems to rest on assumptions we accept because of their intuitive force, for instance that “five deaths are worse than one” or that “it is a bad thing if a person is killed” (ibid.: 350). It is of course possible to offer further reasons for these assumptions, but it is unlikely that these reasons would be accepted without reference to even further reasons or, ultimately, to intuitions. Similarly, the normative theory that he favours, utilitarianism, seems to rest on some intuitively plausible assumptions – assumptions that are not themselves derived from other parts of the theory (cf. Daniels 1996: 5).

Singer takes these points into consideration and seems to grant that, in a sense, also the reasoned answer might rest on an intuition. However, he claims that this intuition is fundamentally different than the intuitions that lead us to judge the trolley cases differently; it is a “rational intuition”, not “the outcome of our evolutionary past”
(Singer 2005: 350-1). But he gives us little clue as to how to separate rational intuitions from evolutionarily derived emotional intuitions. It cannot be that the former, but not the latter, are indubitable in the sense of analytic truth; “it is a bad thing if a person is killed” does not seem to be analytically true and if it were it would not tell us anything interesting. Both kinds of intuition seem to be substantial moral intuitions. One might instead argue, as Singer (2005: 351) implicitly does by citing Sidgwick, that the former are clearer or more certain than the latter. However, clarity and certainty are dubious criteria of rationality. Why should we expect current intuitions about killing to be clearer or more certain than historical, and in retrospect questionable, moral intuitions about, say, the evils of masturbation?

**Reflective Equilibrium**

It seems that Singer does not give us sufficient reason to exclude intuitions or apparently sound pre-theoretical moral judgments altogether from ethical deliberation. However, his concern about the role of reason – a legitimate one indeed, and essentially the same concern that Kass’s critics express – is still left in suspension. The problem is: if intuitive, theoretically unfounded judgments are a legitimate part of ethical reasoning, what room is there for reasoned argument? Can we ever do better than articulating and advocating conclusions that we have already settled for on intuitive grounds? Can we ever be rationally persuaded to give up those judgments that might simply be reflections of cultural bias, prejudice or evolutionary heritage? The challenge is to strike a balance between Kass’s and Singer’s positions, to grant intuitions a role without allowing them to engulf reason.

Somewhat ironically, perhaps, the view that seems most suitable to meet this challenge is also the one that Singer is explicitly criticising. His argumentative edge is directed at the influential method of reflective equilibrium (besides at an, in his opinion related, general conservative tendency on the part of ethicists).

The term reflective equilibrium was first introduced by John Rawls in his seminal work *A Theory of Justice* (1971), but the roots of the method can be traced further back. The basic idea is that we at-

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31 Not only does the methodological discussion in *A Theory of Justice* draw on earlier work of Rawls’s, but it reflects features of how ethical reasoning is typically done, features which have been prevalent throughout the history of philosophy (Rawls 1971: 51, n. 26, Tersman 1993: 16-7). Smith (1994: 40-1) even argues
tempt to justify our moral beliefs, general and specific alike, by seeking coherence among them. The method is often characterised as a movement back and forth between our particular considered moral judgments and our ethical principles, in which each level is evaluated and adjusted in the light of the other. This process aims at a state, the state of reflective equilibrium, where the principles match the considered judgments – where we have a coherent system of moral beliefs. (Rawls 1971: 19-22, 46-53)

Rawls’s account of reflective equilibrium has been further developed to a considerable extent by other authors (e.g. Tersman 1993, Daniels 1996), as well as criticised (e.g. in Singer 1974, 2005). It is probably at present the most widely discussed suggestion of a method for ethics. This is not the place to rehearse the details of that debate. However, a few remarks need to be added to the above outline of the general idea of reflective equilibrium. First, the coherentist character of reflective equilibrium implies that there are no “fixed points”, no self-evident foundation from which ethical arguments can proceed. This applies to ethical principles as well as to moral judgments on particular cases; all are open to revision or rejection. A part of our system of moral beliefs is justified solely by virtue of its coherence with the rest of the system. (Rawls 1971: 21, Tersman 1993: 37)

Second, the notion of considered moral judgment requires explanation. Rawls conceives of such judgments as held with some conviction and arrived at in conditions conducive to sound deliberation and judgment in general. Judgments made with little confidence are ruled out, as are judgments made in situations where we are excessively biased by self-interests, for instance because of fear. (Rawls 1971: 47-8)

Finally, a distinction is often made between narrow and wide reflective equilibrium (Daniels 1996). In narrow reflective equilibrium ethical principles are matched with particular considered moral judgments in the way described above. In the pursuit of wide reflective equilibrium the justificatory circle is extended; coherence is sought in a system of beliefs consisting of a set of considered moral judgments, a set of ethical principles and a set of relevant ethical and other background theories – for instance theories about the person or the role of morality in society. The point is that the principles are not

that it is a platitude about moral argument that it takes the coherentist form systematised in the method of reflective equilibrium.
only justified by their “fit” with considered judgments, but also tested and supported by arguments inferred from these theories. Beliefs on all three levels may be revised, but the independent theoretical support for the principles means that the weight of particular judgments is more limited than in the narrow interpretation of reflective equilibrium. (Daniels 1996: 22-3) There is more room for theory-based revision of moral judgments, i.e. more room for philosophical argument. This responds to the objection that reflective equilibrium is too conservative a method – that it merely systematises whatever moral judgments we already happen to have. (Ibid.: 27-8)

Method and Questions for the Subsequent Inquiry

My method in this dissertation is in the spirit of reflective equilibrium. I shall adopt three general features from that approach and the broadly coherentist moral epistemology on which it rests. First, I shall assume that moral beliefs can be more or less well founded (in the coherentist sense) and that we can therefore argue reasonably about them.\footnote{It should be noted that saying that moral beliefs can be more or less well founded does not amount to saying that they can be true or false. Truth and justification are conventionally understood as two separate necessary conditions of knowledge (the third being the belief condition; to know something one has to believe it). The two epistemological questions whether a belief (moral or non-moral) is justified and whether it is true are therefore distinct (see Tersman 1993: 13). Daniels (1996: 33-40) offers a very tentative argument to the effect that, while intersubjective agreement in reflective equilibrium is not constitutive of truth, it might be regarded as evidence of truth, \textit{if there is such a thing} as moral truth. The question of moral truth (not to mention truth in general) is the topic of almost endless philosophical debate and is far beyond the scope of this dissertation.} That is to say, I am not a sceptic. Scepticism would in any case be a rather fruitless foundation for a normative argument like mine. Second, I believe that pre-theoretical moral judgments have a certain initial justificatory weight. In this I disagree with Singer. Third, however, I shall assume that such judgments can be revised or rejected in the light of other judgments and a wide range of theoretical considerations. In this I disagree with those who attribute an epistemological privilege to an unarticulated “wisdom of repugnance”. The moral beliefs that we actually happen to have need to be taken seriously, but should not be conceived of as unalterable or beyond the reach of argument.
It is against this background that I take the widely shared presumption about a morally relevant difference between the use of reproductive technologies to avoid severe diseases and other uses to be worthy of reflection. In what follows, I shall attempt to understand this intuition and assess its normative importance. Understanding it involves trying to account for or explain it by means of various ethical principles, theories and values. This is a matter of matching principles with judgments in the spirit of reflective equilibrium. It should be pointed out that the precise content of the intuition is not determined beforehand; rather it will emerge through the principles, theories and values that I will attempt to match it with. The normative force of the intuition is then determined by its coherence with other considered judgments and the independent plausibility of the principle, theory or value that accounts for it.

Thus, my discussion addresses two distinct questions. First, how are we to understand the intuition? Or, what is it about? Second, once this is made clear, are we justified in having the intuition? The questions designate two different steps in the argument; answering the first one is necessary for arriving at an answer to the second. Further, the second question is related to the fundamental normative question posed in Chapter 1: to what extent are parents justified in using reproductive technologies in order to select traits in their offspring? The intuition is about the moral limits of reproductive technologies. If the outcome of the discussion is that the intuition is justified, we have an answer (or a partial answer) to the question where those limits are. However, the content of that answer will depend on how the intuition is characterised; that is, it will depend on the answer to the first question.

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33 Thus, I do not think of the movement between the principles and the intuition as a matter of fitting together two already completely determined, independently characterised ideas. Rather (and I think that this departs somewhat from Rawls’s characterisation of reflective equilibrium), the relationship between the intuitive and the theoretical level of our moral belief system has a certain hermeneutic quality. That is, neither level can be fully understood without reference to the other. The movement between them thus involves an element of interpretation that in principle goes both ways, although for my purposes the direction of interpretation is primarily from principle to intuition. For different views on the similarities and differences between wide reflective equilibrium and hermeneutics, see Ebbesen & Pedersen (2007) and Widdershoven (2007).
On Intuition, Belief and Emotion

Here an important difficulty seems to arise. I have presupposed that what I have called an intuition can play the role of what Rawls calls a considered judgment. Is this sound? A judgment is normally taken to be something cognitive: a belief with a propositional content. But the language used by both Kass and Singer suggests that they are concerned with something seemingly non-cognitive; what Kass appeals to and Singer criticises is described as “emotional responses”, “emotional expressions” and such. This may seem to cast serious doubt on my ambition to test the justifiability of our moral intuitions about reproductive technologies. How could an intuition, if it is essentially an emotion, function as part of a web of coherent beliefs?

This leads us to the question: what are moral intuitions? On the one hand, there are, after all, reasons to believe that they are beliefs or belief-like. We often try to articulate them linguistically and use them in reasoned moral argument. If indeed they are beliefs, we have of course no reason to worry about their place in coherentist justification. But on the other hand, as both Singer and Kass suggest, moral intuitions seem to have a certain non-cognitive flavour. They have a special phenomenology that is lacking in pure belief; they feel in particular ways (as descriptions like “repugnance” indicate) and they may even move us physically (they make us upset or agitated). It should be noted that this observation is compatible with the claim that moral intuitions are essentially beliefs; the non-cognitive elements of our experience of them may be merely typically caused by the belief element, not a necessary part of the intuition as such.

But let us suppose, for the sake of argument, that moral intuitions are emotions. We are not thereby committed to the claim that they may play no role in ethical justification. That claim rests on an inadequate understanding of the nature of emotions – an excessively stark opposition between reason and emotion – of which both Kass and Singer seem guilty. I cannot here delve very deeply into the large and old subject of the relation between reason and emotion. I will just make two brief points that are relevant to the present discussion of moral intuitions. First, on a conventional view, emotions are distinguished from other types of feeling – bodily sensations and moods – by their intentionality: they are directed towards objects.34 For in-

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34 See, however, Peter Goldie’s intriguing arguments that bodily feelings can have a kind of intentionality that is “borrowed” from emotional feelings (Goldie 2000: 54-7) and that moods are also intentional, but directed to much less distinct ob-
stance, one cannot love without loving *someone* (or, perhaps, *something*). It should be clear that moral intuitions are likewise intentional, which means that they may perhaps be emotions, but not moods or sensations. Kass’s repulsion is directed towards the idea of human reproductive cloning; it is emphatically not like an unintelligible itch (a bodily sensation) or a vague but all-enfolding gloom (a mood).

Second, many believe that emotions, properly understood, in fact involve beliefs. This has been conceptualised in different ways in contemporary philosophy of the emotions. Martha Nussbaum (2001) argues that emotions are value judgments about persons or objects important for our flourishing – i.e. they are beliefs. (Note, however, that Nussbaum conceives of judgment as something wider than simply grasping a proposition). In a less rationalistic, but still largely cognitivist, vein, Peter Goldie (2000) argues that emotions are to be thought of as complex phenomena, a kind of thinking-through-feeling, that also typically (though not always) involve beliefs, without which they are unintelligible. The role of belief in emotion can be demonstrated by a simple example: I cannot envy another person if I do not believe that she is in possession of something that I lack. My belief enters into the very definition of my envy. Similarly, and this is my point, I cannot have the moral intuition that an act is wrong without also *believing* that the act is wrong.

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35 A critique of the alleged opposition between reason and emotions may also take the converse form. Such a critique would consist in showing how beliefs are themselves necessarily emotionally sustained. This is captured in the Heideggerian notion of “attunement” (*Befindlichkeit*), which involves the idea that we always find ourselves in some mood (*Stimmung*) or other, through which the world is revealed to us as meaningful. Our being-in-the-world is, then, always emotional in an important sense, even when we are engaged in something as seemingly purely cognitive as believing something. (Heidegger 1996: § 29)

36 One might of course be convinced by an ethical theory, say act-utilitarianism, and still find some of its implications unpalatable, for instance that it seems to require that we sometimes sacrifice innocent people. However, this does not mean that one has a moral intuition that condemns such a practice without a belief that it is condemnable. Rather, I think that the example can be conceived of as a case of conflicting beliefs; one believes both that the practice is condemnable and that it is approvable (we often have conflicting beliefs, especially on moral issues; see Nussbaum 2001: 35-6). Indeed, this would explain why such implications are often taken to refute utilitarianism and why utilitarians are often careful to avoid
It appears, then, that either answer to the question whether moral intuitions are beliefs or emotions is compatible with the idea that they may play a role in ethical justification. Either they are beliefs, however typically accompanied or followed by feelings, and may thus function just as any other such states in moral reasoning. Or they are complex emotions that conceptually involve beliefs. In that case the beliefs involved can be sorted out and fitted with other beliefs in the search for coherence. This is to say neither that the other, non-cognitive, aspects of moral intuitions are unimportant, nor that the beliefs involved are always easily identifiable. But, in principle and at least to some extent, our initial, often largely emotional, moral reactions can be articulated and rationally discussed. Indeed, this seems to be a perfectly normal part of everyday moral discourse. Thus I agree with Mary Midgley’s (2000: 7) claim that

[t]he gut sense that something is repugnant or unsavoury – the sort of feeling that many now have about various forms of biotechnology – sometimes turns out to be rooted in articulate and legitimate objections, which with time can be spelled out, weighed, and either endorsed or dismissed. But we ought not dismiss the emotional response at the outset as “mere feeling”.

It should come as no surprise, then, that what Rawls calls a considered moral judgment Singer calls a moral intuition. They seem to mean the same thing: an initial, “raw”, theoretically unfounded moral opinion. I shall assume that reasonable articulations of intuitions may be regarded as judgments in coherenist justification. There is however one proviso: they must meet Rawls’s conditions of sound

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37 I shall assume without further argument that what I have said already about moral intuitions and emotions also entails the idea that moral intuitions can be linguistically articulated. If they are plain beliefs this goes almost without saying. The idea that moral intuitions are articulate is also, I believe, compatible with the idea that they are emotions, as long as one takes a cognitivist view of emotions. The reader who is not satisfied with this brief remark is referred to Charles Taylor’s rich and subtle discussion in “Self-interpreting animals” (1985). For Taylor, emotions (including moral intuitions) can be linguistically articulated, and also shaped by language, because they are linguistically constituted in the first place, because language is “the medium in which all our emotions, articulate and inarticulate, are experienced” (ibid.: 74).
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judgment, i.e. they must be held with some confidence and not be bi-
ased by self-interest. In that sense, unreflective moral intuitions are
merely candidates of considered moral judgments. However, I do not
see any reason why the intuitive distinction that I have described
would fail to meet these conditions.

Specifying the Intuition: A Twofold Distinction

I have described a moral intuition that I think that many share,
namely that there is an important moral difference between using re-
productive technologies for the purpose of avoiding severe disease in
future persons – what I shall sometimes call therapeutic uses – (illu-
strated by case a), and using them for the purpose of selecting or en-
hancing non-disease traits – what I shall sometimes call enhancement
uses (illustrated by cases b, c and d).38 I have also suggested that
moral intuitions can be made intelligible and that, if properly articu-
lated, their justifiability may be tested in a coherentist fashion. Before
I attempt to articulate and test the intuition, however, it needs to be
somewhat more clearly stated.

Critics of enhancement uses of reproductive technologies often
distinguish such uses not only from uses that aim at avoiding dis-
ease, but also from what we might call “environmental” (as opposed
to genetic) enhancement (Habermas 2003: 61-2). This includes a wide
variety of measures that a child is exposed to in the course of being
raised and in other ways socialised and cultivated – from violin les-
sons and ice hockey practice to moral guidance and schooling. From
this perspective, genetically enhancing a future person’s emotional
stability (as in case d) is morally different from raising one’s already
existing child into an emotionally stable adult. This suggests that the
intuitive wariness about enhancement uses of reproductive technolo-

38 Note that my use of the terms ‘therapeutic’ and ‘enhancement’ differs from
their use in ordinary language. When we speak of an intervention as therapeutic
we normally mean that it heals or ameliorates an illness in a particular person,
and when we speak of some measure as enhancing we usually mean that it con-
stitutes a benefit to someone in particular, that it makes her better off. As we
shall see in Chapter 3, however, the choices discussed in this dissertation often do
not affect particular people for the better or the worse, but rather create people
that would not exist if the choices were not made. And even regardless of this
peculiarity some of the traits selected by what I call enhancement uses may often
not be regarded as beneficial (e.g. deafness). I will call them enhancements any-
way in order to distinguish them from choices that aim at avoiding disease. I
choose to use the terms in this way partly for reasons of convenience, partly be-
cause they are often used in that way in the bioethical literature.
gies in fact encompasses two distinctions. The intuition can thus be more precisely expressed:

Using reproductive technologies to (i) produce or enhance non-disease traits in future persons is morally problematic in a sense that (ii) using these technologies to avoid severe diseases in such persons and (iii) producing or enhancing these traits by other means in already existing persons are not.

It is important to note not only the distinction between (i) and (ii), but also the distinction between (i) and (iii). Both distinctions have been defended by those who are suspicious of enhancement, and questioned by their critics. A number of authors have criticised the first distinction because of the normative weight it seems to attribute to the concept of disease. Avoiding disease, the argument goes, is only morally important because of the negative impact that diseases have on people’s well-being or quality of life. What really matters, then, is not disease, or the absence of it, as such, but rather well-being. Whether or not a particular intervention is morally acceptable should therefore be determined directly by its effects on the created child’s well-being (and perhaps that of its parents and others concerned).39 The second distinction is contested by Nicholas Agar’s “nurture principle”: “If we are permitted to produce certain traits by modifying our children’s environments, then we are also permitted to produce them by modifying their genomes” (Agar 2004: 113, cf. Robertson 1994: 167).

It should be noted that the claim that I intend to explore is not merely that (i) is morally different from (ii) and (iii). In order to account for and justify the intuitive distinction it is not sufficient to identify reasons to approve of (ii) and (iii), which are not also reasons to approve of (i). Rather, explaining the intuition requires identifying reasons to morally disapprove of (i), which are not also reasons to disapprove of (ii) and (iii). Justifying the claim requires showing that these reasons are good, that we really ought to disapprove of (i) (at least absent countervailing reasons).

The claim is of course still not very precise; in particular, it raises the question how the term ‘severe disease’ is to be understood. I believe, however, that it is sufficiently clear to be tried against princi-

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39 For different versions of this argument, see Kitcher (1996: 208-12, 216), Savulescu (2001: 419-21), Glover (2006: 75-6), and Harris (2007: ch. 3).
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...ples and theories, and that a more precise understanding of it will emerge in that process.
CHAPTER 3

First Approximations

Introduction

In the first chapter I specified the aim of this dissertation: to explore the moral limits of reproductive technologies. In the second chapter I decided to embark on this project by way of scrutinising the justifiability of a moral intuition that many appear to share about the use of such technologies. I now turn to discussing substantial ethical issues. This chapter is devoted to two such issues that do not in themselves clarify the intuition. More specifically, I shall argue that they cannot explain one of the two distinctions that the intuition captures: that between using reproductive technologies for the purpose of avoiding severe disease and using them for other purposes. They are nevertheless important to deal with in order to clear the way for, and determine the direction of, the analyses in the subsequent chapters – analyses that do help us to get at the roots of the intuition. Another reason not to leave the issues of this chapter out of the discussion is that they have played, and continue to play, important roles in the bioethical debate about reproductive technologies. I shall first discuss the moral status of early embryos and then turn to what is often referred to as the “Non-Identity Problem”: the difficulty of applying our familiar ethical principles to cases where our actions determine the identities of those affected by them.

A Note on the Liberal Context

Before delving into these issues, however, let me make a brief remark on the context in which the choices discussed in this dissertation take place. I have assumed from the outset that they are made under conditions that presently obtain in liberal, Western societies. Most importantly, they are ultimately individual parental decisions. They may well be subject to legal or other restrictions, but they are not part of some overt societal scheme geared towards controlling the kind of
people that will be born. This means that they are different in impor-
tant ways from many of the choices promoted by various historical
eugenic efforts (those of Nazi Germany being only the most con-
spicuous example). Note that this places important limits on my at-
tempt to account for the intuition described earlier. The reasons why
many feel uncomfortable about some of the choices described in
Chapter 1 must be sought among factors pertaining to individual re-
productive choices in liberal societies. This excludes from consider-
ation some of what made past eugenic programmes objectionable, like
the coercion they typically involved, or the deliberate ambition to
shape the population according to some single, state defined ideal.40

The Moral Status of the Embryo

As mentioned in Chapter 1, IVF often results in the creation of “sur-
plus” embryos, that is, embryos that are not transferred to the uterus
of the would-be mother, but discarded, preserved for further IVF
rounds or donated to other patients or to research. It is particularly
difficult to avoid ending up with leftover embryos if IVF is combined
with PGD. This is because the purpose then is precisely to sort out
embryos that are judged undesirable. Since some embryos are likely
to have severe genetic defects, it is implausible (though not impos-
bile) that all diagnosed embryos from a given IVF round will ever be
implanted and given the possibility to be carried to term. Some will
probably be discarded. It is conceivable that IGM techniques suffi-
ciently precise to be used on a single embryo may develop. However,
the intervention would still rely on IVF, where leftover embryos are
commonly discarded. Also, it would probably involve a selection
procedure identical or similar to PGD in order to find an embryo
suitable for the intervention.

40 A short clarification is in order here. It may well be that the history of eugenics
explains why some people do in fact feel uncomfortable about certain uses of
reproductive technologies. But that explanation alone would not give us reasons
that can aspire to be justifiable to feel that way – it would also have to be shown
that some of what makes that history repugnant pertains also to those uses.
Studying the history of eugenics may certainly illuminate the moral questions
posed by uncoerced, individual use of new reproductive technologies (Buchanan
et al. 2000) – what might be described as a new, “liberal” (Agar 2004) or “uto-
pian” (Kitcher 1996) eugenics – but such a study does not by itself answer those
questions.
In short, the technologies described in Chapter 1, with the exception of MicroSort and IUI in case b, typically involve the destruction of early embryos. To put it slightly more contentiously, they involve a kind of “killing” – the termination of the earliest form of biological human life. Is this morally acceptable? Do we owe it to embryos not to destroy them? The most fundamental question here is about the moral status of pre-personal human life, a question that is to a great extent responsible for the intractability of the now several decades old abortion debate. Assisted reproduction and human embryonic stem cell research have given rise to a renewed interest in this issue, but the arguments and positions are essentially the same as in the abortion controversy (Holm 2002: 497).

Three Views on Moral Status

I shall argue that the intuition described in the previous chapter cannot be made intelligible with the help of any position on the question of the embryo’s moral status. In order to see why, let us take a brief look at the contours of the debate about this question. At the one extreme, there is the view that the embryo is the moral equivalent of a full-fledged person – that is, that it enjoys the same rights, including the right to life, as normal adults. Differently put: human beings at the moment of conception enter the community of beings that are fully protected by morality. From this perspective the destruction of embryos amounts to murder, which makes IVF and PGD highly suspect practices, to say the least. This is the official view of the Catholic Church\(^\text{41}\), but the full moral status of embryos may also be defended on strictly secular grounds (see for instance Almeida 2004).

At the opposite extreme, there is the view that the embryo completely lacks moral status – that it is, morally speaking, like any other

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\(^{41}\) The Vatican Congregation for the Doctrine of the Faith (1987) states that: “[T]he fruit of human generation, from the first moment of its existence, that is to say from the moment the zygote has formed, demands the unconditional respect that is morally due to the human being in his bodily and spiritual totality. The human being is to be respected and treated as a person from the moment of conception; and therefore from that same moment his rights as a person must be recognized, among which in the first place is the inviolable right of every innocent human being to life.” For a critique of the official Catholic position, see Munthe (1999: 110-7). It is important to note, in relation to this, that Catholic ethicists hold different views with respect to the moral status of early embryos, and that there is an ongoing debate about these issues among them and between them and other ethicists. For an overview, see Cahill (1993).
lump of human cells. This is usually backed up by the argument that embryos lack the properties that are considered necessary for personhood in the moral sense: the capacity to feel pleasure and pain (Kuhse & Singer 1990) or cognitive traits like autonomy, rationality or self-awareness. On this view, human beings enter the moral community not at conception but at some later point, for instance when they develop the capacity to feel pain, at birth, or even later. Consequently, there is nothing about the embryo in itself that makes destroying it morally problematic. (The destruction of embryos may still be objected to for other reasons, for instance because it might the first step on a slippery slope towards some other, intrinsically immoral, practice, or because of the “symbolic value” [Robertson 1995] that we attribute to embryos).

Both these opposite views are problematic for the very reason cited in support of the embryo-as-object view: embryos seem to lack the properties that we normally associate with personhood. The problem for the proponents of this view is to pick out a property that embryos lack, but that other human beings have. If rationality or autonomy is regarded as necessary for personhood, infants and many mentally retarded and severely demented persons are excluded from the moral community – a rather counterintuitive conclusion (Munthe 1999: 103-5). The problem for the supporters of the embryo-as-person view is of course not to find a property that excludes embryos (and only embryos), but, conversely, a property that includes them. The most obvious property that embryos share with other humans is membership of the human species, defined by possession of a complete human genome. However, assigning moral status on the ground of species membership alone is vulnerable to the charge of “speciesism”: the unjustified bias in favour of one’s own biological species. Species membership, like race membership, seems by itself entirely morally arbitrary. (Kuhse & Singer 1990: 70-1)

One influential strategy for granting the embryo moral status without referring to any property that it actually shares with adult persons is by appealing to its potentiality to develop into a person. The respect that everyone agrees is owed to paradigmatic persons, with the capacities for experiencing pleasure and pain, reasoning

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42 An association between personhood, in a moral sense, and various cognitive traits can be found in different ethical traditions. It is for instance intrinsic to Kant’s ethics, which I shall discuss in Chapter 5. For a defense of such an association, see Warren (1973).
and autonomous agency, is by this move somehow extended to embryos in virtue of their potentiality to become such persons. The potentiality argument has been given different interpretations and has been used to support different conclusions. Also, the notion of potentiality and its relevance for ethical argument has been seriously questioned.\textsuperscript{43}

What is particularly interesting for the present discussion is that potentiality for personhood may be invoked not only to support the embryo-as-person view. It may also be appealed to in order to establish a considerably weaker thesis: that, contrary to the embryo-as-object view, embryos have \textit{some} moral status, but not, contrary to the embryo-as-person view, \textit{full} moral status.\textsuperscript{44} From this perspective, embryos are due some kind of respect, but they do not enjoy the absolute (or at least very strong) moral protection of paradigmatic persons. This opens for the possibility of justifiably using – even destroying – embryos in some circumstances, without denying them moral status altogether. It should be noted that this position may also be defended without reference to the notion of potentiality (see for instance Meyer & Nelson 2001). The point here is not to review the arguments put forward in defence of this position, but merely to indicate the possibility of a “middle way” between the embryo-as-person and the embryo-as-object views.

\textbf{Why Moral Status Does Not Explain the Intuition}

None of the three views with respect to the moral status of the embryo outlined here can adequately account for the intuitive distinction between using reproductive technologies to avoid severe diseases in future persons and using them for other purposes, such as sex selection, selection for disability and genetic enhancement. If we believe

\textsuperscript{43} A well known objection to the potentiality argument is that if we believe that human embryos should be respected because of their potentiality for personhood, we are thereby committed to the belief that human gametes – sperm and unfertilised ova – are worthy of the same respect, since they are also, considered together, potential persons (Kuhse & Singer 1982, Singer & Dawson 1988). For a critique of this \textit{reductio ad absurdum} argument, see Gómez-Lobo (2004). The potentiality argument has been criticised in other ways too; see for instance Mahowald (2004).

\textsuperscript{44} For a utilitarian version of such a defence of limited moral status in terms of potentiality, see Munthe (1999: ch. 4). Combining the Kantian prohibition on instrumentalisation with a Heideggerian account of practice, Fredrik Svenaeus (2007) draws on potentiality to argue for another variety of the limited moral status view.
that embryos have full moral status, we should be troubled indeed about all the cases described in Chapter 1, except case b. Our belief that embryos are due the same strong moral protection as adults would not in itself allow us to discriminate between the cases, as long as they all involve the destruction of embryos (cf. Wilkinson 2005: 46). The disposal of surplus embryos would amount to murder in all cases, regardless of the purpose of the intervention.

Conversely, the belief that embryos completely lack moral status would not give us reason to oppose the parents’ choices in any of the cases. The destruction of embryos would in all cases in itself be an irrelevant consideration for the ethical evaluation of the intervention. None of the cases should be troubling solely because of the disposal of embryos involved. It seems quite clear, then, that both the embryo-as-person and the embryo-as-object views, considered in isolation, lead to the conclusion that there is no morally relevant difference between the cases.

What about the middle way view, the claim that embryos are due some respect, but not to as high a degree as paradigmatic persons? This perspective seems at first glance more helpful for our attempt to make intelligible the intuitive distinction between the cases. This initial optimism is due to the fact that ascribing weak moral status to the embryo is usually understood as entailing the belief that it may only be used or destroyed for good moral reasons, for instance in legitimate research aiming at laudable goals (Meyer & Nelson 2001). It might be suggested that such good reasons are provided by the therapeutic goal present in case a and that this justifies the destruction of embryos – beings with some degree of moral status – in that case, but not in the other cases, where such reasons are not present.

However, such an argument begs the question why the therapeutic goal may justify the destruction of embryos while other goals may not. Any genuine distinction between the cases would, on this line of reasoning, require deliberation about the worthiness of the various possible goals of reproductive technology. It should be clear that this would shift focus away from the question of the moral status of the embryo. The distinction between the cases would, then, not be explained by the belief that the embryo has a weak moral status, but rather by the belief that some goals are morally better than others. The middle way view on moral status might imply that embryos may only be used or destroyed for good reasons, but it does not in itself answer the question what reasons are good. The answer to that question must be sought elsewhere.
Conclusion and Implications for the Subsequent Argument

I conclude that the intuitive difference between using reproductive technologies to select against genetic diseases and the selection and engineering of future offspring for other purposes cannot be explained in terms of the moral status of the embryo. The intuition is not an intuition about moral status. This has two important and related implications for the discussion in what follows. First, in the search for the underpinnings of the intuitive distinction the attention must be directed away from the embryo towards something else, for instance the prospective parents or the child-to-be. Second, any ethical argument proceeding from the distinction will be independent on views concerning the moral status of the embryo. This is of course a significant advantage of such an argument; it sidesteps a several decades old ethical controversy that is unlikely to be resolved any time soon. The argument that will emerge out of my discussion in the subsequent chapters will thus be in principle acceptable to proponents of all three main views on the moral status of the embryo, as well as to those who do not hold any particular view on the matter.

However, the relative weight of the argument will depend on the view taken with respect to the question of moral status. If we share the embryo-as-person view, we already have very strong reasons to object to all uses of reproductive technology that involve the destruction of embryos. It is unlikely that any argument about a distinction between different uses will identify reasons for some of these uses sufficiently strong to tip the scales in favour of them. Rather, any reason against certain uses picked out by such an argument is likely to merely add to the basic negative evaluation. If we subscribe to the embryo-as-object view, on the other hand, or if we do not hold any particular view on the question of moral status, the argument may take on greater independent importance, since the reasons it provides us with to endorse some uses of reproductive technology and reject others do not have to be weighed against or added to reasons having to do with the moral status of the embryo.

The relative weight of the argument will be somewhat more difficult to determine if we hold some version of the middle way view; it will depend on the details of the view. If the view is taken to imply that embryos may only be used or destroyed for good reasons, one role of the argument might be to distinguish such reasons from others. The distinction between different uses of reproductive technology
could then be understood as implying a distinction between valid and invalid reasons for using or destroying embryos.

**Reproductive Freedom, Harm and the Non-Identity Problem**

**Reproductive Freedom and the Harm Principle**

“Do as you like, as long as you don’t harm others” is a familiar rule of thumb of everyday morality. Its appeal is of course that it acknowledges the moral importance normally assigned to personal autonomy, the self-rule of mature and competent persons. In political philosophy, one of the most influential proponents of this idea was John Stuart Mill, who famously argued that society may only interfere with the conduct of an individual in order to protect others from harm (Mill 2001). What he or she does to him- or herself is, emphatically, none of the community’s business. We may call this idea “the harm principle” (see for instance Glover 2006: 73).

The harm principle is frequently invoked in discussions of the ethical and legal implications of reproductive technology. One example is John Robertson’s influential defence of reproductive freedom45 – “the freedom to decide whether or not to have offspring and to control the use of one’s reproductive capacity” (Robertson 1994: 17). This freedom is conceived of as a negative right that protects parents-to-be from state regulation of their reproduction, whether “natural” or technologically assisted. Ethicists and genetic counsellors generally share Robertson’s insistence that the right of prospective parents not to have their reproductive choices made or constrained by others has great weight. Nobody is prepared to defend the coercive measures of the various historical varieties of eugenics. This unity is partly explained by the fact that reproductive freedom may be grounded in a wide variety of ethical values and perspectives: autonomy, well-being and gender equality (Buchanan et al. 2000: 214-22).

However, there is disagreement as to the scope and limits of the moral and legal right to reproductive freedom. The question whether

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45Although Robertson himself favours the term ‘procreative liberty’, I will follow many others (e.g. Buchanan et al. 2000) in using the term ‘reproductive freedom’ to refer to this prerogative of prospective parents. I regard the terms as synonymous.
it extends not only to choices of whether, when, with whom and how many times to procreate, but also to choices about the characteristics of one’s offspring, is especially controversial (Buchanan et al. 2000: 209-11). The emerging reproductive technologies described in Chapter 1 seem to focus our attention on choices of the latter kind. For Robertson, the relevant limit to the use of these technologies is drawn by the harm principle: “To take procreative liberty seriously […] is to allow it to have presumptive priority in an individual’s life. This will give persons directly involved the final say about use [sic] of a particular technology, unless tangible harm to the interests of others can be shown.” 46 (Robertson 1994: 41-2)

It should be noted that Robertson’s main concern is with the legal question of state regulation of reproductive technologies, rather than with the question of to what extent their use is morally justified. However, the distinction between law and ethics is often blurred in the discussion of reproductive and genetic technologies. Robertson himself often seems to want to capture both in his argument, and at any rate the logic of that argument is often found in purely ethical discussions. (Cf. Davis 2001: 41-2, Murray 2002: 42) Therefore, the argument is of interest for our present discussion.

**The Non-Identity Problem**

Is the harm principle of any help to us if we want to understand the distinction between different uses of reproductive technologies captured by the intuition described in Chapter 2? I shall argue that it is not. In order to see why, it might be helpful to consider case c, in which Jonathan and Sandra choose to use PGD to successfully give birth to a deaf child, Julia.

Many of us feel inclined to believe that the couple does something wrong to their child, that their choice harms her – makes her worse off – in some way. But this is not so. Had they chosen to transfer another embryo to Sandra’s uterus, another child (if any) would have been born. From Julia’s perspective, the only alternatives seem to be existence as a deaf person and non-existence; her parents could not have chosen to bring her about as a hearing person. Julia might wish that she had been born a hearing person, but surely it is better to be deaf than not to be at all? Since she has not been made worse off by her

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46 For similar views on the limits to reproductive freedom, see Savulescu (2002) and Harris (2005a, 2005b, 2007).
parents’ decision – many would probably even say that she has been made better off⁴⁷ – she does not seem to have any legitimate complaint against them. It seems, then, that Sandra and Jonathan have not harmed anyone else by their decision and therefore, on the harm principle, they have not done anything wrong.

Note the important difference between this case and another conceivable case, in which a child is already born hearing and his parents cause him to be deaf by action or omission. In the latter case, we would indeed say that the parents harmed their child, that their action or inaction made him worse off. The child would have been better off hearing and thus his parents have deprived him of something valuable. This is not true of the first case; Julia has not been made worse off by her parents’ choice to bring her into existence. Only if her deafness made her life not worth living (from her own perspective) could we say that their choice harmed her. But such a view is highly implausible; being deaf is compatible with a worthwhile and rewarding life and clearly not worse than not existing at all. Our initial common sense judgment, that Jonathan and Sandra do something wrong to Julia, therefore seems unfounded. Yet we seem to want to object to their choice.

This illustrates what Derek Parfit (1984) calls “The Non-Identity Problem”. In order to get a more comprehensive view of the problem, it might be helpful to consider one of Parfit’s own examples. Suppose that we are about to choose between two public policies: either we deplete a certain kind of resource, or we conserve it. The quality of life on average will be slightly higher for the next couple of centuries if we choose Depletion rather than Conservation. Later, however, it will drop and for many centuries remain much lower than if we had chosen Conservation. Most of us would say that the higher quality of life of future generations provides us with a moral reason to choose Conservation. Yet if we choose Depletion no one will be made worse off and nobody will have any grounds for complaint. The reason is that the identity of future people will depend on which policy we choose; the difference in quality of life brought about by the two policies will cause people to have children at different times. After a few generations the people brought about if we choose Depletion will not be the

⁴⁷ Note that the claim that Julia has been made better off, rather than merely not worse off, rests on the far from unquestionable assumption that causing someone to exist can benefit that person. This assumption is discussed (inconclusively) in Parfit (1984: 487-90).
same that would have been brought about if we had chosen Conservation. It is also assumed that the quality of life if we choose Depletion will not be so bad that it makes people’s lives not worth living. The question then arises: given that nobody can complain and nobody is harmed, why not choose Depletion? (Parfit 1984: 361-3)

The two cases arise in different contexts, but they are puzzling for the same reason. Actions that affect future persons are different than other actions in an important way: they sometimes determine the identity of those that they affect. Our ordinary moral principles are concerned with what Parfit calls “Same People Choices” – no matter how we choose the same people will exist. However, the couple’s choice in the above example is a “Same Number Choice”: it affects the identity but not the number of future persons. The identity of their future child depends on the embryo that they choose in the PGD process; had they chosen another embryo for implantation, Julia would not have existed. Also, there are “Different Number Choices”, which affect both the identity and the number of future persons. (Parfit 1984: 355-6) For methodological reasons, Parfit thinks of the choice between Depletion and Conservation as a Same Number Choice, but this kind of policy decision could sometimes be regarded as Different Number Choices.

The Non-Identity Problem has important implications for our present search for the underpinnings of the intuitive distinction between different uses of reproductive technologies. We have seen that case c describes a Same Number Choice. And, obviously, so does case a, since it involves the same kind of embryo selection. Had Susan and Peter selected another embryo instead of the one they in fact selected, some other child than Robert would have been born (or, if the procedure had failed, no child at all). What about cases b and d? Both can, I think, be classified as Same Number Choices, but case b only with some hesitation and case d perhaps only given the current state of the technology involved.

Suppose, in case b, that Michael and Anna found out at the last minute that Michael’s sperm was of poor quality, but that despite this they decided to go through with the procedure by inseminating Anna not with Michael’s sperm, but instead with the sperm of a donor. Suppose also that the insemination resulted in pregnancy and that Anna carried the child to term. Would that child be identical with Christopher? It would, on the one hand, originate from a different sperm cell than Christopher, but, on the other hand, it would be conceived at the same point in time as he and originate from the same
egg cell (and would consequently have the same genetic mother). If the child in this altered version of the case is identical with Christopher in the original version of the case (if it is Christopher), then sex selection by sperm sorting is a Same People Choice, if not it is a Same Number Choice.48

As for case d, there are a variety of techniques that are used to introduce inheritable genetic modifications in animals. The techniques that are used on fertilised eggs are currently highly inefficient in the sense that the gene transfer only succeeds in a small percentage of the targeted cells (Rasko & Jolly 2006: 19). If used in human assisted reproduction this presumably means that the gene transfer would have to be attempted on a range of fertilised eggs and that an embryo with the desired modification would then have to be selected from this range. This would make the selection a Same Number Choice; depending on which embryo is selected different people will exist. However, we can imagine a much more sophisticated kind of germ-line intervention, which would be performed on a single, pre-selected embryo. Such an intervention would be a Same People Choice; the same person would exist whether or not the intervention was performed. But such an imagined refined variety of germ-line gene transfer is quite far from the current state of the technology.

The upshot of the Non-Identity Problem for the present discussion is that the harm principle is of no help for making intelligible the intuitive distinction. If I am right that the choices made in all the cases a through d are Same Number Choices, the principle does not

48 In Parfit’s discussion, the distinction between Same People and Same Number Choices rests on what he calls the “Time-Dependence Claim”: “If any particular person had not been conceived within a month of the time when he was in fact conceived, he would in fact never have existed” (Parfit 1984: 352). The underlying assumption seems to be that no one could have originated from a different egg cell than she in fact originated from, but Parfit leaves open the possibility that the sperm cell could have been different (ibid.). What distinguishes a Same Number Choice from a Same People Choice is, then, that on the different outcomes, the persons that exist originate from different egg cells. If we allow for the possibility that the same person might originate from different sperm cells, the consequence for case b is that had Anna been inseminated with different sperm, she might have become pregnant with the same child (who consequently could even have been a girl). On that view, case b illustrates a Same People Choice. Like Parfit, I am undecided on whether this view is correct, but it does not really square with my intuitions; I am inclined to believe (without justification) that in the alternative version of case b, some other child than Christopher is born. As we shall see, I do not think that much hinges on this problem. Even if the case involves a Same People Choice it is odd to say that anyone is harmed.
pick out any relevant difference between any of them. In neither case is anybody harmed, because if different choices had been made, different people would have been born. Thus, on the harm principle, there is nothing wrong with any of the choices. And even if case b and d are more appropriately conceived of as Same People Choices, it is unlikely that the harm principle is of much help. It seems on the face of it strange to say that being born with an enhanced genetic make-up rather than an unenhanced one, like Nancy, or a boy rather than a girl, like Christopher, is harmful to either of them. I will return to this in the next chapter.

It should be noted that the harm principle would not even allow us to object to more extreme conceivable cases. Consider, for instance, the use of PGD to select for a severe genetic disease. This would not be objectionable as long as the disease is not so severe that it makes life not worth living, all things considered. This is only true of very severe diseases (more severe than, say, Duchenne muscular dystrophy). In Same Number Choices the harm principle only gives us grounds for objecting to the bringing into existence of persons with lives that are not worth living. Everything else is morally permissible.

A Way out of the Problem: Non-Person-Affecting Principles

Some accept this conclusion. Many others, including Parfit himself, find it highly problematic and feel prompted to find a way to avoid it. Before examining the standard way to avoid the Non-Identity Problem, it should be pointed out that it is not only a problem for the harm principle. For the same reason that we cannot say that Julia’s parents have harmed her, it makes little sense to say that her rights have been violated. Suppose that we believe that every child has a right to a life without disability. The only way for Julia to have such a right respected is by never having existed. It seems, then, that had it been possible for her to have a say, she would have waived her right, which makes it a strange kind of right. (Parfit 1984: 364) A related point,

49 Julian Savulescu (2002: 772) relies on non-identity to argue that, in cases where the alternative is non-existence, the use of reproductive technology may only be interfered with if the child caused to exist will have a life not worth living. This is an argument about regulation; in other places he has proposed moral obligations with respect to reproduction that make a much wider range of choices immoral (Savulescu 2001). Another version of the argument is offered by Robertson (1994: 75-6), who, however, also grants a possibility of moral criticism even when non-identity makes it impossible to argue that parents act irresponsibly in a legal sense.
made by Christian Munthe (1999: 131-2), is that rights are conceptually connected to obligations. If Julia has a right to a life without disability, others must have a corresponding obligation to respect that right. But, since ‘ought’ implies ‘can’, there can be no such obligation. There is no way that anybody can see to it that Julia is born without deafness.

What the harm principle and the attempted appeal to rights have in common is that they imply the so-called person-affecting restriction. This means that they judge the goodness of outcomes of actions by their effects on particular people; something can only be bad in a morally relevant sense if it affects someone for the worse. On the level of right and wrong actions, this feature is what leads us to the harm principle: no wrong without harm. The standard way out of the Non-Identity Problem is to abandon the person-affecting restriction (Munthe 1999, Buchanan et al. 2000, Davis 2001, Savulescu 2001, Glover 2006).

This move leaves us with principles that are in an important sense impersonal, that do not judge outcomes by their effects on particular people, but compare their effects on the different people that would exist in different outcomes. As a claim about good and bad outcomes, Parfit (1984: 360) suggests “The Same Number Quality Claim” (Q): “If in either of two possible outcomes the same number of people would ever live, it would be worse if those who live are worse off, or have a lower quality of life, than those that would have lived”. As an example of an action guiding ethical principle, consider principle N, put forward by Buchanan et al. (2000: 249):

Individuals are morally required not to let any child or other dependent person for whose welfare they are responsible experience serious suffering or limited opportunity or serious loss of happiness or good, if they can act so that, without affecting the number of persons who will exist and without imposing substantial burdens or costs or loss of benefits on themselves or others, no child or other dependent person for whose welfare they are responsible will experience serious suffering or limited opportunity or serious loss of happiness or good.50

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50 Another example of a non-person-affecting ethical principle is Savulescu’s principle of “procreative beneficence”: “couples (or single reproducers) should select the child, of the possible children they could have, who is expected to have
Q allows us to say that Depletion is worse than Conservation, although nobody would be made worse off on either course of action. Similarly, Q makes it possible to say that John and Sandra have brought about a worse state of affairs by having Julia than they could have brought about by having another child. N allows for the argument that they have breached a duty by doing so. Note that the absence of the person-affecting restriction means that they cannot be said to have breached a duty to Julia, nor to anybody else in particular. Rather, they can be reproached for, as Jonathan Glover (2006: 49) puts it, having made “the world a worse place” – that is, a worse place than they could have made it. On the non-person-affecting approach, then, there is such a thing as wrong without harm. Obviously, because of its impersonal character, this view is particularly congenial to utilitarians (see for instance Munthe 1999: ch. 5).

In bioethical discussions about reproductive technologies and future people it is often not recognised that avoiding the Non-Identity Problem by dropping the person-affecting restriction comes at a high price. One counter-intuitive implication is of course that, in case c, the wrong is not done, as we initially assumed, to Julia.\textsuperscript{51} More importantly, however, once we abandon the requirement that wrong actions must be bad for someone, we seem to be left with a concern with impersonally good and bad states of affairs. Our duties are then not determined by the well-being and suffering of anybody in particular, but by the well-being and suffering in the world. This puts us on the path towards what Parfit (1984) calls the “Repugnant Conclusion”: a world with a huge population with lives that are barely worth living is preferable to a world with a different, much smaller, population where all have a very high quality of life.

This is, in brief, how Parfit reaches the highly counterintuitive conclusion: in Same People Choices we derive our reasons against treating people in ways that affect them for the worse from the famil-

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\textsuperscript{51} This might not be a problem for the non-person-affecting view; Buchanan et al. (2000: 250-3) argue that it is instead a strength. They claim that the fact that the account does not point us towards any victim does not count against it, but rather shows that it characterises the problem correctly. Despite what our (essentially person-affecting) intuition suggests, the fact of non-identity means that there cannot be a victim.
iar principle of beneficence. But since this principle, as it is ordinar-
ily understood, implies the person-affecting restriction, it faces the
Non-Identity Problem in Same Number Choices. Hence, in order to
cover such choices, Parfit suggests that we revise the principle by re-
moving that restriction. This leaves us with something like the Same
Number Quality Claim (Q), which both encompasses the ordinary
principle of beneficence in Same People Choices and allows us to
make interpersonal comparisons in Same Number Choices. (Parfit
1984: 366, 369-71) So far so good. But Parfit wants to develop a theory
that not only implies Q, but also (unlike Q) covers Different Number
Choices (ibid.: 378). When the principle of beneficence is revised by
removing the person-affecting restriction and extended to such
choices, we get something like the “Impersonal Total Principle”: “If
other things are equal, the best outcome is the one in which there
would be the greatest quantity of whatever makes life worth living”
(ibid.: 387). And this clearly implies the Repugnant Conclusion.

Having reached this point in the argument, Parfit sets out to find
a theory that both solves the Non-Identity Problem and avoids the
Repugnant Conclusion, without yielding even less acceptable con-
clusions. Despite numerous ingenious attempts he fails. Many con-
sequently conclude that we face a dilemma: either we accept the
person-affecting restriction and have to face the Non-Identity Problem or
we adopt a non-person-affecting (utilitarian) view and have to em-
brace the Repugnant Conclusion (Munthe 1999: 128-9). It seems that
the very move that allows us to sidestep the one quandary places us
straight in the other.

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52 Parfit thinks of this principle in very broad terms, namely as “our general
moral reason to benefit other people, and to protect them from harm” (Parfit
1984: 371). It is clear, not only from this formulation, but also from the kind of
cases that he discusses, that he takes it to imply the harm principle as I have un-
derstood it. I have chosen to reiterate Parfit’s argument as much as possible in
his own words, but nothing hinges on the choice of terminology. Whether we start
out with the harm principle or the principle of beneficence we end up with the
same set of difficulties: first the Non-Identity Problem and then the Repugnant
Conclusion.

53 For those who want to avoid the Non-Identity Problem by removing the per-
son-affecting restriction, there are in principle two ways of dealing with the Re-
pugnant Conclusion. One may either accept it as not-so-repugnant-after-all
(Munthe 1999: 128-9) or deny that it is really entailed by dropping the restriction.
The latter strategy could take various forms. It could be argued that principles
like N do not necessarily entail the Repugnant Conclusion because they are only
concerned with Same Number Choices, not Different Number Choices. (Buchanan
et al. 2000: 254 make the similar suggestion that person-affecting and non-
Another Way out: A Non-Consequentialist Approach

This unattractive implication of the non-person-affecting approach should make us want to find another way out of the Non-Identity Problem. I shall suggest that for my purpose here, there need not be a dilemma, in a strict sense, between the Non-Identity Problem and the Repugnant Conclusion. In order to see why, it is helpful to briefly reconsider the way that the debate generally has been framed.

The person-affecting harm principle and the non-person affecting approach both belong to a broadly consequentialist outlook. This is indicated by the prevalence of terms like ‘worse/better outcomes’, ‘worse/better off’, ‘harm’ and ‘benefit’. Admittedly, the harm principle may be part of a deontological rights based approach rather than ethical consequentialism, but the definition of harm in terms of being made worse off is inescapably about consequences of actions. The controversy between person-affecting and non-person-affecting views concerns, above all, in what way – not if at all or to what extent – the rightness and wrongness of actions are determined their effects. The general consequentialist assumption that underpins both approaches is typically not questioned.

It goes almost without saying that the field of ethics is not exhausted by consequentialism. From a historical perspective, there are two outlooks in particular that challenge this preoccupation with person-affecting principles need to be combined in a complete moral theory, but give little clue as to the details of such a combination). But this is unsatisfactory in the light of Parfit’s discussion. What makes it possible to avoid the Non-Identity Problem is the principle of beneficence without the person-affecting restriction, and it is precisely that principle in its non-person-affecting form that leads to the Repugnant Conclusion when applied to Different Number Choices. Reaping the rewards of the principle in one kind of case without owning up to its problems in another kind of case does not seem entirely honest. We should be worried if our principles have unattractive implications for cases other than the one we are immediately concerned with. Parfit’s own failure in Reasons and Persons to find a plausible account of beneficence that both solves the Non-Identity Problem and avoids the Repugnant Conclusion puts a particularly heavy burden of proof on those who claim to avoid both quandaries within a theoretical framework of harm and benefit. It should be noted that the most well-known and theoretically coherent non-person-affecting account of beneficence – straightforward total utilitarianism – obviously avoids the first difficulty only at the expense of being stuck with the other. A possible reply at this point would be that we should accept Parfit’s solution to the Non-Identity Problem in Same Number Choices, but rely on some wholly other principle than the principle of beneficence in Different Number Choices. But without further justification such a suggestion seems arbitrary.
outcomes of actions; we may call them the Aristotelian view and the Kantian view. Simplifying somewhat, on the Aristotelian view, the primary object of moral praise is neither action in itself nor the consequences of action, but the **virtue** – the state of character – of the agent.\(^5^4\) On the Kantian view, the sole object of moral praise is the **motive** of the agent – her sense of duty. This is captured in the well-known opening sentence of the first section of the *Groundwork of the Metaphysics of Morals* (4: 393): “It is impossible to think of anything [...] that could be considered good without limitation except a good will.”

My purpose here is not exegetic; neither will I discuss the merits and shortcomings of these two influential views. I simply want to point towards other ways than consequentialism to approach the thorny issues grouped together as the Non-Identity Problem.\(^5^5\) The Kantian and Aristotelian views both prompt a shift in focus from the outcomes of actions (good or bad, impersonally characterised states of affairs) to the agent (more specifically her motives or character). This allows us to approach the selection in case c and the choice of Depletion over Conservation with another kind of criticism than the kind considered above. Regardless of whether or not Julia’s parents harm her by their choice or whether or not they bring about a worse state of affairs than they could have brought about, there might be something reproachable about the motive or attitude behind the choice or the character of which it is expressive. Due to the more impersonal nature of the choice of Depletion, the same point seems less plausible here\(^5^6\), but could still be made for the sake of illustration: we

\(^{5^4}\) The reason why this is simplified is that an action is not virtuous only because of the state of character from which it proceeds; the agent also needs to have certain knowledge and choose the action for its own sake (NE 1105a31-4). Aristotle also insists throughout the *Nicomachean Ethics* that the virtuous person has to take pleasure in virtuous actions. However, it is clear that what our praise is directed at is the agent’s state of character.

\(^{5^5}\) For other non-consequentialist approaches to the Non-Identity Problem, see Kumar (2003) and Wasserman (2005). From a contractualist perspective, Rahul Kumar argues that someone can claim to have been wrongly by being caused to exist (without having been made worse off), because the legitimate expectations to which she is entitled in virtue of her value of a person have been violated. David Wasserman argues that an impaired child’s grounds for complaint against his parents for bringing him into existence can be found in their faulty reasons or motive for doing so.

\(^{5^6}\) This should not be surprising; policy decisions concerning future generations are arguably quite different from parents’ choices concerning their future children,
might find the choice blameworthy (partly) because it says something about the motive or character of the decision maker.

From a non-consequentialist point of view, then, we do not necessarily face a dilemma between the Non-Identity Problem and the Repugnant Conclusion. If outcomes are not all that matters, there seem to be possible ways to object to Same Number Choices that do not require us to embrace the concern for impersonal good that pushes us in the direction of the Repugnant Conclusion.

A non-consequentialist view also opens up a new perspective on the intuitive difference between using reproductive technologies to avoid severe diseases in future persons and using them to select or enhance non-disease traits. Perhaps the difference should not be understood in terms of differences in the way that the future person is affected by the interventions, but rather in terms of different reasons or motives on the part of the person or persons deciding about the interventions, or in terms of the different character traits that the decisions display. From this perspective, the reason that we feel uncomfortable about, say, selection for deafness might be that it is undertaken with an attitude, or originates from a disposition, that we find somehow inappropriate, either specifically for parents-to-be and/or medical personnel or quite generally.

Two remarks need to be made at this point. First, like the non-person-affecting approach, the non-consequentialist approach suggested here opens for the possibility of moral wrongness in the absence of harm. There may be something wrong about the motives or character of parents who use reproductive technologies to select for a certain trait even if their choice does not harm anybody. However, nothing has been said about the place of character and motive in a full, all-things-considered ethical analysis of choices of this type. It may well be that consequences count too, so that such an analysis requires taking into account both consequentialist and non-consequentialist considerations. The point for now is simply that not only consequences matter.

Second, nothing has been said in this chapter about the relation between on the one hand moral wrongness and on the other law and policy. In Chapter 1 I distinguished between ethical and policy questions and declared that I would focus on the first type of question, and only briefly discuss questions of the second type in the Appen-

although both kinds of choices illustrate the Non-Identity Problem (Wasserman 2005: 132-3).
Conclusions and the Way forward

We have seen that in cases where our decisions determine the identity of future persons (so-called Same Number Choices), the Non-Identity Problem is a great obstacle to the application of broadly consequentialist, person-affecting ethical principles, like the harm principle. The shortcomings of the harm principle are reflected in its inability to account for the intuitive distinction that we make between using reproductive technology for the purpose of avoiding severe disease and other uses. The intuition does not seem to be about harm at all. If we are to understand what it is about, then, some other approach is necessary.

If we take the Non-Identity Problem seriously our search for such an approach is forced in either of two opposite directions, both of which have been discussed in this chapter. The first alternative is to drop the person-affecting restriction in favour of an impersonal, broadly consequentialist view. I have suggested that such a view has highly problematic implications, but I will nevertheless explore its possibilities in Chapter 4. There I will attempt to analyse the intuitive distinction in terms of the effects of reproductive technologies on the persons that are brought about (in Same Number Choices compared to the effects on persons that could have been brought about instead). More specifically, the discussion will address the concepts of autonomy and the right to an “open future”.

The second alternative is to take on a non-consequentialist view. From this perspective, what we find troubling about certain uses of reproductive technologies is not their effects on the persons that they help bring into existence. Rather, in order to understand the intuition, we need to shift focus from those affected by reproductive choices to those who make them – to their motives, attitudes or character traits. The details of such a view are yet to be spelled out. Chapters 5 through 8 are devoted to the twofold task of developing a non-
consequentialist perspective on reproductive technology (drawing on both Kantian and Aristotelian patterns of thought), and bringing it to bear on the intuitive double distinction at the centre of this dissertation’s discussion.
CHAPTER 4

Impersonal Harms, Autonomy and the Right to an Open Future

Introduction

In Chapter 2, I noted that using reproductive technologies to select for or enhance non-disease traits in future persons intuitively seems to be morally different both from “enhancement” of existing persons by environmental means and from using these technologies for the purpose of avoiding bringing into existence persons with severe diseases. I posed the interrelated questions what this intuition is really about and whether it can be justified. The discussion in the last chapter did not offer much by way of clarification, except negatively, by showing that the intuition is neither about the moral status of embryos nor about harm to particular persons. However, it pointed towards two opposite ways to analyse the intuition: by considering the impersonally characterised effects that reproductive technologies might have on those they bring about, future persons, and by focusing on those who use the technologies: prospective parents assisted by medical personnel. This chapter proceeds from the first perspective; I will attempt to understand the intuition as a belief about what might happen to future persons. More specifically, the question that I intend to discuss is whether enhancement uses of reproductive technologies could affect for the worse the persons that they bring into existence.

A Short Reminder

This last sentence needs qualification. When using the expression ‘affect for the worse’, we need to bear in mind the distinction (discussed in Chapter 3) between Same People Choices, where the identities of the persons that will exist are not affected by the choices, and Same Number Choices, where the identities of the persons that will exist depend on the choices. Principles that are about the effects of actions on particular people, like the harm principle, imply the per-
son-affecting restriction and hence, as I have demonstrated, do not cover Same Number Choices. If we want broadly consequentialist principles to accommodate this kind of choice, we need to abandon the person-affecting restriction. This leaves us with principles that allow us to compare the effects of different courses of action on different persons.

If such principles are to clarify what might be troubling about cases b through d, we need to be able to demonstrate that the uses of reproductive technologies that the cases exemplify may somehow have bad consequences for the persons they bring about. For the reasons just mentioned ‘bad consequences’ is to be understood impersonally; it means ‘bad for this particular person compared to another person that would exist, had a different choice been made’. I will use the term ‘impersonal harm’ (Glover 2006: 45) to denote the bringing about of such consequences. For example, in case c, saying that Jonathan’s and Sandra’s choice was harmful means that their daughter Julia is made worse off compared to some other child that would have existed, had they selected another embryo. It is this kind of claim that is explored in this chapter. It should be noted, however, that non-person-affecting principles also allow us to make comparisons between the effects of different courses of action on the same person; that is, they also allow us to talk about Same People Choices. The point is that it does not matter whether the comparison is intra- or interpersonal.

**Suffering and Quality of Life**

In what way might parents’ uses of reproductive technologies harm (in the peculiar sense just specified) the children that they bring about? In some conceivable cases the answer to this question seems clear. Suppose a couple wanted to have a child that suffered from some painful and ultimately life-threatening disease, which nevertheless was compatible with a life worth living. Suppose further that they used PGD to have such a child. Because of the Non-Identity Problem and because the child’s life is worth living we could not re-proach them for harming the child, in the usual, person-affecting sense of the term ‘harm’. But we could say that they have failed to make sure that the child for whom they are responsible does not suffer seriously (Buchanan et al. 2000: 249) or that they have caused
more suffering in the world than they could have caused – that is, that they have caused an *impersonal* harm.

Conversely, consider the couple in the first case described in Chapter 1, who use PGD to *avoid* bringing about a child suffering from this kind of disease. We can readily account for why this may be intuitively perceived as a good thing by saying that the parents have avoided that a child for whom they are responsible suffers or that they have avoided to cause suffering in the world. But this only gives us a reason to approve of the selection in the first case; it does not explain why we should be worried about the other cases described in the first chapter.

Cases b through c are not like the two kinds of case briefly described here. We cannot without further argument account for our intuitive uneasiness about these cases simply by appealing to catch-all concepts like suffering, happiness or quality of life. There is no uncontroversial account of suffering or happiness that would permit us to straightforwardly conclude that boys are less happy than girls (or vice versa), or that those born with genetically enhanced traits would suffer in ways that others do not. And, as we have seen, many deaf themselves contest the claim that deaf people enjoy lives of less quality than hearing people. If we want to argue, then, that it would be worse to be born deaf rather than hearing, or a boy rather than a girl, or genetically enhanced rather than unenhanced, as a result of someone else’s choice, we seem to be faced with the question: in what way would it be worse? In what follows, I will examine the most widely discussed answer to that question.

**Autonomy**

Many authors have expressed concern about the effects of certain uses of reproductive technologies on the autonomy or freedom of future persons. Dena Davis is worried that “the extreme respect for the autonomy of the parents-to-be, who are the obvious clients of geneticists, has sometimes obscured concern for the autonomy of the child-to-be, who is in an important way also the geneticist’s client, or at least the object of her concern” (Davis 2001: 6-7). Habermas’s claim that a person who has been genetically enhanced by others before birth might find himself cut off from “the spontaneous self-perception of being the undivided author of his own life” (Habermas 2003: 63) also seems, at first glance at least, to express a concern about the
autonomy of this person. Can the choices of prospective parents threaten the autonomy of their future children, and, if so, how? A closer look at the concept of autonomy seems like a sensible first step towards an answer to these questions.

The Concept of Autonomy

Like most important philosophical ideas, autonomy, meaning roughly self-rule, has travelled a long and winding historical road. The concept is primarily associated with the Kantian tradition in moral philosophy, where the autonomous will is conceived of as a will unmoved by outer influence, only subjugated to its own, self-given law. The past few decades have seen an increased interest in the concept of autonomy, an interest not least attributable to a growing emphasis on self-determination and informed consent in health care and research on human subjects. In the context of the present discussion I can only describe some very broad outlines of this more recent discussion.

A distinction is sometimes made between autonomy as a capacity of persons and autonomy as a property of actions (Faden & Beauchamp 1986). Theorists of autonomous persons tend to emphasise a particular reflective and revisionist attitude on the part of such persons towards their preferences, motivations and desires. Gerald Dworkin (1988: 20) characterises autonomy as "a second-order capacity of persons to reflect critically upon their first-order preferences, desires, wishes and so forth and the capacity to accept or attempt to change these in light of higher order preferences and values". This capacity comprises several parts. It is not enough to be able to merely reflect on one’s preferences and approve of or disapprove of them; one must also have some ability to change them and to make them effective in one’s actions (ibid.: 16-7).

Elaborating on the concept of a person, Harry Frankfurt puts forward a view in the same vein. What makes somebody a person, he argues, is that she has “second-order volitions”: that she is not only moved to act in accordance with her desires, but that she also may or may not want her desire to be thus effective (Frankfurt 1971: 10). Frankfurt regards such a capacity as necessary for having a free will, that is, being able to act on the desires one wants to act on (ibid: 14-5).

From this perspective, what is characteristic about the autonomous person is, then, not that she acts as she pleases, on whatever preferences that she may have. Nor do her preferences or motivations
need to have a particular origin or content (Dworkin 1988: 22-9). She is autonomous (or, on Frankfurt’s theory, a person with a free will) because she asks herself whether she wants to have these particular preferences, whether she can identify herself as the kind of person who is motivated in this particular way, and because, if she answers ‘no’ to any of these questions, she is willing and able to change her preferences and motivations.

Ruth Faden and Tom Beauchamp (1986), leading theorists of autonomous action, question the practical relevance of theories of autonomous persons. The purpose of their work is to develop a theory of informed consents and refusals, which they regard as a subclass of autonomous actions. Theories of autonomous persons are inadequate, they argue, because persons who are generally regarded as non-autonomous may still act autonomously sometimes and, vice versa, autonomous persons may fail to act autonomously. An autonomous person may for instance sign an informed consent form without reading or understanding it, or accidentally sign another form than the one that she intended to sign. (Faden & Beauchamp 1986: 235-7)

Faden and Beauchamp list three necessary conditions of autonomous action: intentionality, understanding and noncontrol. Intentional actions have two components. It is not sufficient that an action originates from the agent’s will – that it is her action. The action must also correspond to the agent’s conception or plan for the action. An intentional action is an action “willed in accordance with a plan” (Faden & Beauchamp 1986: 243). This rules out mere events (which do not have agents at all), as well as accidents and mistakes (which do not have plans), but not all unwanted actions; one may will what one does not want.57 (Ibid.: 242-7)

The understanding condition rests on a propositional conception of understanding: “a person’s understanding that his or her action is an action of a certain description with consequences of a certain description” (Faden & Beauchamp 1986: 250). Completely understanding one’s actions is a matter of grasping all statements that describe its nature and foreseeable or possible outcomes. Here it is important to point out that Faden and Beauchamp regard autonomy as a graded concept. Complete understanding is necessary for completely

57 The difference between a will and a want is that only the former desire is necessarily motivating – it “moves (or will or would move) a person all the way to action” (Frankfurt 1971: 8).
autonomous actions, but informed consents merely have to be *substantially* autonomous – hence they require substantial, not full, understanding (ibid.: 238-41).

The condition of noncontrol is based on two concepts: influence and resistance. Control belongs to the wide category of influence, but is distinguished from other kinds of influence (like persuasion) by its quality of irresistibility. Influence is irresistible when the agent cannot willingly accept or reject the way that it shapes her action, when it is not her will, but someone else’s that governs the action. (Faden & Beauchamp 1986: 256-8) Control is exerted either by coercion, which involves intended, credible and irresistible threats, or by manipulation, which involves altering the agent’s actual choices or, by other means than appeals to reason, her perception of choices. The category of manipulation comprises both controlling and noncontrolling influence, since not all manipulation is irresistible. (Ibid.: 339, 354-5)

*Reproductive Technologies and the Autonomy of Future Persons*

Could selection or engineering for enhancement purposes somehow undermine the autonomy of future persons? This question can be discussed in two ways. We may ask either if the selected or engineered person would lack any capacity central to autonomy or if the selection or engineering would amount to the kind of influence that makes actions non-autonomous. Note that these two questions do not correspond to the distinction between theories of autonomous persons and theories of autonomous actions. Both kinds of theory allow us to discuss both questions. Performing autonomous actions requires the possession of certain basic capacities (for instance the capacity for intentional action). And theories of autonomous persons have implications for action; they allow us to talk about autonomous action as the exercise of autonomous capacity, and about non-autonomous actions as actions where that capacity is not exercised or is prevented from being exercised.

Let us first look at the capacities that are explicitly and implicitly involved in the theories of autonomy described above. Both theories seem to require the possession or exercise of some basic volitional capacity: to be able to form and act on an intention. This is indeed a necessary condition for being an agent at all. For Faden and Beauchamp intentionality further involves a capacity of making plans. Also, because of their propositional conception of understanding, the agent must have some capacity for linguistic apprehension. Dwor-
kin’s theory involves some kind of self-knowledge, an awareness of one’s preferences, desires and so on. Further, it requires from the autonomous person a volitional capacity more refined than the very basic one already mentioned: she must also be able to make her desires and preferences the object of a higher-order will.

Many of the elements of this list could of course be further analysed. However, it should already be sufficiently clear that the list does not include any capacity that would be targeted by the uses of reproductive technology described in the first chapter. It is difficult to see how selection for sex or deafness, or enhancement of height, disease resistance or emotional stability would affect any of the capacities in question directly. And this should not surprise us as they are capacities of a rather basic kind; most adults have them, at least to a substantial degree.58 Saying that selecting for deafness or increasing height in future persons would deny them the basic capacities necessary for autonomy seems to amount to saying that deaf or tall people lack these capacities because they are deaf or tall – a highly implausible claim.

However, it could still be argued that selecting or enhancing desired traits in future persons might indirectly affect these capacities. We can imagine that learning that one’s genetic make-up is the result of someone else’s choice – and, in Same Number Choices, that one owes one’s very existence to this choice – might be upsetting. Perhaps it could be disturbing to the degree of affecting one’s capacity of, say, reflecting on one’s preferences or planning one’s actions. There are two problems with this line of reasoning. First, a distinction must be made between having a capacity and exercising it. Being upset or perplexed about one’s parents’ choice could perhaps temporarily interfere with the exercise of certain psychological capacities, but it would hardly permanently destroy them or prevent one from ever obtaining them. But periods of psychological distress and temporary breakdown in the functioning of normal psychological faculties are part of every normal human life. What would make the lives of selected or enhanced persons different, except perhaps the reasons for the distress?

58 The assumption that people in general act autonomously, or are at least capable of doing so, carries much of the weight of Faden’s and Beauchamp’s (1986: 235-7, 264-5) critique of theories of autonomous persons. See, however, Dworkin’s (1988: 7-8) requirement that a theory of autonomy be empirically possible.
This brings us to the second problem: the argument rests on assumptions about the psychology of selected or engineered persons, which can be neither confirmed nor dismissed a priori, but only by empirical evidence that is as yet unavailable. Without such evidence it cannot be concluded that the knowledge that one owes certain genes, or even one’s very existence, to someone else’s choice would disturb the exercise of certain psychological capacities in any more fundamental way than the various contingencies that belong to all normal lives.

By shifting focus from the possession of capacities to the exercise of them we have already begun to touch upon the second question posed earlier: could selection for or enhancement of non-disease traits be understood as the kind of influence that compromises autonomous actions? One initial suggestion about how it could be readily dismissible. It might plausibly be argued that by using reproductive technologies parents-to-be can affect the future preferences and aspirations of their children.59 Since autonomy, on Dworkin’s and Frankfurt’s view, is a matter of having a certain kind of relation to one’s preferences and so on, the suspicion might arise that the fact that these preferences are the result of someone else’s choice could somehow make one less autonomous. But this is not so. The origin of one’s preferences is not relevant to one’s critical reflection on them and one’s choice to accept or reject them as motives for one’s actions (Dworkin 1988: 22-9, cf. Wasserman 2003: 102).

As we have seen, when authors discuss the kind of influence that undermines autonomy they have in mind such things as coercion. The suggestion that parents would coerce their future children by genetic selection or enhancement surely has an odd ring to it. There seems to be a significant disanalogy between the robber holding the victim at gunpoint and the parents selecting the genetic make-up of their future children. Coercion undermines autonomy because it severs the connection between the agent’s will and the action – the action is “entirely dominated by the will of another” (Faden & Beauchamp 1986: 258). This is clearly not what happens when parents make choices about what kind of person to bring into existence.

59 This is perhaps most clearly the case when it comes to sex selection: being a man or a woman is not merely a matter of biology, but also comes with a host of gender-specific expectations, possibilities and so on (in short, what some would call a role). It is reasonable to assume that these socio-cultural factors play an important part in shaping men’s and women’s wishes and preferences and the kind of life to which they aspire.
Impersonal Harms

They do not impose their will on the future person in a way that makes the person’s own will ineffective and forces her actions towards a certain alternative. At the time of the intervention there is no will that can be thus overridden.

The suggestion that the parents manipulate their future child by selecting its genetic make-up seems less outlandish. Manipulation may involve altering the set of options open to the agent, for instance by offers and non-coercive threats (Faden & Beauchamp 1986: 355). It seems reasonable to assume that parents might give a future child different options if they select one set of genes over another – indeed, the purpose of the selection might be exactly to facilitate certain choices rather than others. However, even if the notion of manipulation could be stretched to accommodate such cases, this does not demonstrate that autonomy has been restricted, since not all manipulation is incompatible with autonomous action. When manipulation undermines autonomy it is for the same reason that coercion undermines autonomy: the action is brought about by someone else’s will, regardless of what the agent wants, by influences that she finds irresistible or near-irresistible. Manipulation, in the relevant sense, works on the will of the agent, but, again, at the time of the intervention there is neither will nor agent. That one course of action on the part of others presents the agent with different options than an alternative course of action is not enough to qualify it as controlling manipulation.

Despite being unsuccessful as an argument about the autonomy of future persons, the last paragraph brings out something that might be important: parents’ uses of reproductive technologies may affect the set of options available to their future children. I will now turn to this phenomenon.

Freedom

A Distinction between Autonomy and Freedom

We have seen that the concept of autonomy is of little help in clarifying what might be troubling about selecting or engineering non-disease traits in future persons. However, this does not dissolve the various concerns cited above, simply because they are not about autonomy in any of the senses discussed above (although ‘auton-
omy’ is often the term used to express the concerns). Rather, they are about the freedom – in a particular sense of that term – of future persons. A distinction between freedom, in this sense, and autonomy, in the above senses, suggests further possibilities for answering the question whether enhancement uses of reproductive technologies might be impersonally harmful for those that they help bring about.60

Dworkin offers a rough characterisation of freedom: “the ability of a person to do what she wants, to have (significant) options that are not closed or made less eligible by the actions of other agents” (Dworkin 1988: 14, cf. Frankfurt 1971: 15). We have seen that on his account autonomy includes more than doing what one wants, namely to reflect on and accept or reject one’s wants before acting (or refraining from acting) on them. Faden’s and Beauchamp’s theory also requires more of autonomous action than their being what the agent wants; in particular, she must know what she is doing. But these two theories of autonomy also include less than the above characterisation of freedom: they do not involve a notion of (several, sufficient or significant) options.61

To illustrate the difference between autonomy and freedom, in this sense of the term, consider a simple example. Suppose that I offer you a piece of chocolate that you feel like eating. Nothing would stop you from eating the piece of chocolate. Most would agree that you are free to eat it. However, not all would say that eating it would be an autonomous action. Dworkin would require that you stop and think about whether you really want to eat it, taking into consideration higher order preferences (to maintain a healthy diet, say, or to avoid caries). Faden and Beauchamp would perhaps require that you know a little more about the situation than that I offer you a piece of chocolate (or something that looks like chocolate – for all you know it might be poison). Suppose, further, that upon seeing that you hesitate about whether to eat the piece of chocolate or not, I also offer you a piece of

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60 The distinction outlined in what follows is admittedly rather crude and does not do justice to the wide variety of different, contemporary and historical, ideas of autonomy and freedom. However, it is useful for my purpose here: to explore two different conceivable ways in which reproductive choices may affect for the worse those that they help create.

61 Note, however, that theories of autonomous actions, as well as theories of autonomous persons when they make claims about actions, require that there be one option in the sense of one action that is autonomous or not, or with respect to which an agent is autonomous or not. But, and this is what matters for my distinction, they neither involve the notion of a number of options (significant or not), nor the idea that the degree of autonomy somehow varies as that number varies.
fudge. We would say that your freedom has increased because you now have more options (provided, of course, that the piece of fudge was not already available to you). We would, however, not say that your autonomy has increased.

**The Child’s Right to an Open Future**

It is particularly this last aspect of freedom that is of interest here. Concerns about the freedom of persons brought about by reproductive technologies are most often concerns that some options may be closed off to them, that they may be prevented from pursuing certain ways of life. This has led some to propose that parents’ use of reproductive technologies should remain to a substantial degree neutral with respect to the possible life plans of their children-to-be, much like the liberal state should remain neutral with respect to the various conceptions of the good held by its citizens.62 The basic idea is that the future freedom of the yet unborn ought to limit the reproductive freedom of their parents-to-be.

This line of reasoning is typically inspired by Joel Feinberg’s argument to the effect that children have a “right to an open future”, which consists in a set of “rights-in-trust”. These are the rights that adults have, but that children do not yet have the capacity of exercising, for instance the right to freely practice one’s religion. Many of the rights belonging to the broad liberal ideal of being free to pursue the kind of life that one wants are properly understood as such rights-in-trust. Children’s possibilities of exercising these rights when they grow up may be precluded already when they are children, hence they have to be proactively protected. Protecting a child’s right to an open future is a matter of protecting her freedom, as an adult, to live according to her own conception of the good life. (Feinberg 1992: 76-8)

This reasoning is what leads Feinberg to be cautious of the claim of a community of Old Order Amish in Wisconsin that their freedom of religion should exempt them from the legal obligation to send their children to school until the age of sixteen. Such an exemption, he argues, is compatible with preparing a child for a traditional Amish lifestyle, but it might not be sufficient to prepare him for other ways of life that he some day may wish to pursue: “He may become a pious

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62 This analogy is suggested by Buchanan et al. (2000: 174-5), who, however, recognise that it is imperfect; proper parental neutrality is much more limited than proper state neutrality.
Amish farmer, but it will be difficult to the point of practical impossi-

bility for him to become an engineer, a physician, a research scientist,

a lawyer, or a business executive” (Feinberg 1992: 82).

Applying Feinberg’s argument to the discussion of reproductive

technologies, Davis, the most eloquent spokesperson for the freedom

of the yet not conceived, suggests the following rough norm for the

use of such technologies: “Parents ought not deliberately to substanci-

tively constrain the ability of their children to make a wide variety of

life choices when they become adults” (Davis 2001: 66). She regards

this claim as rooted in the Kantian ban on instrumentalisation: par-

ents who equip their child with the abilities to pursue only their con-

ception of the good life fail to treat it as an end in itself (ibid.: 34). In

the same vein, Nicholas Agar argues that “[t]hose who regulate en-

hancement technologies should insist that parents’ attempts to en-

hance do not rule out plans founded on conceptions of the good life

radically opposed to the parents’ conception” (Agar 2004: 106).

What are the implications of this for the uses of reproductive

technology that we are concerned with here? Both Agar (2004: 105-6)

and Davis (2001: 63-6) argue that selection for deafness is ruled out,

because being born deaf means being limited to a more narrow range

of possible ways of life than being born hearing. Davis also relies on

the open future argument to argue that sex selection by sperm sorting

technology should be discouraged. Her argument is not that being a

woman or a man per se entails having fewer opportunities, but rather

that sex selection (whether for a boy or a girl) threatens to exacerbate

gender stereotyping, thereby limiting the child’s freedom to choose

and pursue a life of its own. (Davis 2001: 100-2)

The Merits and Limitations of the Open Future Argument

This first brief look at the implications of the open future argument

thus makes it seem like a good candidate for the elucidation of the

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63 See Buchanan et al. (2000: 170-6) for yet another version of this view. Haber-

mas also comes close to this line of reasoning at times. He writes that “[e]ugenic

programming […] gives rise to moral misgivings as soon as it commits the person

certained to a specific life-project, or, in any case, puts specific restrictions on his

freedom to choose a life of his own” (Habermas 2003: 61). As Bernard Prusak

(2005) points out, Habermas shares an important basic presupposition with the

proponents of “liberal eugenics” that he criticises (Agar in particular): the limits

of reproductive freedom ought to be drawn on liberal grounds. This being said,

however, there are certainly other dimensions to Habermas’s concern about

“eugenic programming”. I will return to some of these dimensions.
intuition described in Chapter 2. Trying out the argument on case a reinforces this optimism. The reason that it provides us with for being wary about selection for deafness and sex selection – the concern about the open future of the child-to-be – also seems to be an important reason to welcome selection against severe disease. The condition selected against in case a, Duchenne muscular dystrophy, puts considerable limits on the pursuit of most life plans. It involves severely impaired mobility and, perhaps even more importantly, often leads to death at an age where it is still too early to even consider life plans. From the point of view of an open future, a life without the disease would be vastly better. (Note that ‘better’ is still used in an impersonal sense – it would not be better for someone who actually suffers from the disease that someone else existed instead).

I shall argue that the open future argument, despite this initial optimism about it and despite the fact that it offers much by way of clarification of our moral perplexity about reproductive technology, ultimately fails to fully elucidate the intuitive moral difference between the cases. I begin by examining the conclusions about selection for deafness and sex cited above, and then move on to discussing the implications of the argument for genetic enhancement.

How might the parents in the selection for deafness case reply to the charge that they narrow down the range of opportunities of their child-to-be? I can think of three relatively plausible objections. First, they might argue that their future deaf child will not in fact have a less open future than a hearing child; that is, that it will not in fact have fewer opportunities. Second, they might concede that their child will have fewer opportunities, but argue that these opportunities (or some of them) are better than those that a hearing child of theirs would enjoy. Third, they might again concede that their deaf child will have fewer opportunities, but argue that this does not matter, since a maximum number of opportunities (a maximally open future) is too ambitious a goal for one’s child.64

The first of these objections accepts the logic of the open future argument, but denies the conclusions about selection for deafness

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64 The third objection corresponds to a critique mounted against Feinberg’s argument in general, outside of the context of reproductive technologies. The gist of the critique is that the child’s right to an open future sets the standard of parenting too high, either because it requires parents to be too self-effacing (Ruddick 1998, cf. Ruddick 1979), or because it is simply impossible for them to keep all of the child’s future options open (Mills 2003). See Lotz (2006) for a defense against the latter claim.
that Agar and Davis draw from it. The disagreement with these authors is of an empirical, not a normative or theoretical, nature. Here much depends on whether one conceives of deafness as a disability or as a culture. Deaf activists are quick to point out that knowing sign language opens for membership in a unique, culturally and linguistically rich community (Dolnick 1993, Dennis 2004). Davis is sympathetic to this point of view, but nevertheless ultimately concludes that if deafness indeed is a culture, it is a narrow one; being deaf involves severe limitations, in particular in terms of career opportunities and prospects for mastering written language (Davis 2001: 63-5).

I shall not dwell on this. The usefulness of the open future argument for coming to grips with our intuitions about reproductive technologies does not hinge on who is right in the disability-versus-culture debate. I will only briefly point towards what seems to me a mistaken line of reasoning in that debate. Julian Savulescu criticises the claim that deafness opens the doors to a unique culture. He writes: “Hearing children of deaf parents can learn how to sign, just as children of English parents can learn to speak Chinese as well as English. It is better to speak two languages rather than one, to understand two cultures rather than one.” (Savulescu 2002: 771) This reasoning overlooks that understanding sign language, while certainly necessary for membership in the Deaf culture, may not be sufficient. Perhaps genuine belongingness among the Deaf, and full access to the goods and opportunities available to those in that community, requires actually being deaf – that is, being excluded from the world of the hearing. If that is the case, one cannot both enjoy the benefits of hearing and the full range of benefits that come with being part of the Deaf community.

The second and third objections are more interesting here because they question the very soundness of the open future argument. The last paragraph can help to substantiate the second objection. If

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65 It should be noted that Savulescu does not endorse prohibiting selection for deafness. On the contrary, he believes that such selection should be permitted because it does not harm the child. (Savulescu 2002: 772) However, in another paper he defends a position on which such choices are probably immoral (Savulescu 2001).

66 The journalist Carina Dennis writes that that “[k]nowing sign language doesn’t, by itself, break down the barriers between the hearing and the Deaf” (Dennis 2004: 894). She goes on to quote a Deaf person saying: “Even hearing people from Deaf families and who sign well are always, to a certain degree, seen as culturally distinct. [...] That absolute feeling of exclusion from the hearing world is difficult for a hearing person to fathom”. (Ibid.)
the deaf parents can show that they can give a deaf child opportunities that a hearing child of theirs would not have, it might also be possible for them to argue that some of these opportunities are better than those of a hearing child. Such a claim seems plausible because these opportunities are the ones that are most closely associated with their own way of life. The parents could then ask: why should we prefer that our child have the largest possible number of options, rather than the best ones? The third objection does not presuppose that deaf people have unique opportunities, but rests on the less bold claim that being deaf is compatible with a decent range of worthwhile opportunities. The question that it raises is whether this range is not enough, whether additional opportunities above this limit have any value. This brings out in a more direct manner a question that already the second objection points in the direction of: is it always a good thing to have more options? The open future argument seems to rest on the assumption that it is.

I think that the general view that more options are always better than fewer is untenable.\textsuperscript{67} The most important reason why a wide range of choices is often more valuable to an agent than a more narrow range is that one or more of the choices in the wider range might better fit the agent’s preferences than any of the choices of the narrow range.\textsuperscript{68} But it is not always the case that an expansion of choices increases the possibility of preference satisfaction. Suppose, for instance, than an agent loves strawberry and chocolate ice cream, but cannot stand vanilla ice cream. A choice between all three kinds of ice cream is, then, not in any way better for her than a choice between strawberry and chocolate ice cream. (Having a choice between the two that she likes may, however, be better than just having one option – sometimes she prefers chocolate and sometimes she prefers strawberry).

Further, an expanded set of options may not only sometimes not be better than the original set, it may even be worse. As Dworkin

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\textsuperscript{67} For a more complete discussion and dismissal of this commonly held view, see Dworkin (1988: ch. 5).

\textsuperscript{68} Dworkin (1988: 78-9) also suggests other reasons why more choices might be instrumentally valuable to an agent. She might for instance take pleasure in the very exercise of choice or want to develop certain character traits (like self-confidence) by making choices. I will leave these reasons out of the discussion here, partly for the sake of simplicity, partly because I take them to be less important than the first reason cited: more choices tend to offer greater prospects for preference satisfaction.
points out, increased choices often incur costs: more choices mean more deliberation, which requires more time, effort and knowledge, the acquisition of which in turn requires time and effort. Also, more choices often come with more responsibility, which we may want to avoid, and they can change the nature of previous options that we may have valued for what they were before the new choices became available. (Dworkin 1988: 66-8, 72) These costs may make an expanded range of options less desirable than a narrower one, especially if the benefits of more choices are small or non-existent.

What this demonstrates is that increasing the range of options of an agent with a given set of preferences does not always make her better off. However, it does not show that a narrow range of options may be equally good or better than a wider range for a future person. There is one crucial difference between the two kinds of case: the preferences of the future person are not yet known. This gives prospective parents a strong reason to aim for as wide a set of options as possible for their child-to-be; the more options the future person will have, the more likely it is that some of these options will fit her yet unknown preferences, her favoured way of life.

This puts us in the position to defend the open future argument against the second and third objections. The reply to the second objection is that because the parents cannot know at the time of the choice what kind of life their yet unborn child will prefer, neither can they know what will be the best opportunities for him or her. The reply to the third objection is that, given this lack of knowledge, the wider the set of options they aim at for their child-to-be, the more likely it is that he or she, as an adult, will be able to pursue the way of life that he or she finds worthwhile.69

Let us now turn to the implications of the open future argument for the sex selection case. As we have already seen, Davis’s argument is not that sex selection should be discouraged because men have more opportunities than women or vice versa. Rather, the idea is that the future opportunities of the selected child might be limited by unusually demanding parental expectations. She writes: “Parents

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69 The point here is that aiming for a more open future for one’s child is, as a general matter, better than aiming for a more restricted one. However, it is still debatable whether a maximally open future is the most attractive aim and whether it is at all feasible (cf. Ruddick 1979, 1998, Mills 2003). While the reply defeats the claim that a narrow set of opportunities is sufficient, it might be compatible with the weaker claim that there is such a thing as a reasonable, less than maximal, set of opportunities.
4. Impersonal Harms

whose preference for one sex or the other is compelling enough for them to take active steps to control the outcome must [...] be committed to certain strong gender-role expectations of the children they will raise” (Davis 2001: 101). Her concern is succinctly expressed in the claim that “to view a child primarily through its gender narrows the child’s ability to choose his or her own path in life” (ibid.: 102).

Davis’s argument strikes me as plausible. Note, however, how much it presupposes in addition to the model of traits and opportunities that the open future argument, as it has been discussed so far, relies on. There is nothing about the trait selected for that should make us cautious about the selection on the grounds that the opportunities of the future person might be restricted. Rather, the reasons for caution only emerge if we consider the context of the selection: the motives and expectations of the parents, the way that the child perceives these expectations and, more generally, the nature of the parent-child relationship.\(^{70}\) The open future argument, then, can perhaps explain our reluctance about sex selection, but hardly by itself, only in combination with such a contextual account. Such an account involves much more than a description of the consequences of the selection for the selected child. Or more to the point: the negative consequences – the narrowing of the child’s opportunities – become visible only if we first consider things that are not themselves consequences, in particular the attitudes of the parents. Completing the argument, then, requires a shift of focus from outcomes of actions to agents, which brings us to the topic of the next chapter.

Does the open future argument help us understand what might be troubling about genetic enhancements? At first, this question might seem odd. Would not having enhanced or even additional traits increase rather than decrease the range of opportunities of the enhanced person? Some traits can, however, certainly in themselves preclude certain options. The heavily muscled body of a sprinter effectively rules out any serious attempt to excel in a marathon or in figure skating. Being seven feet tall is great if you envision a career in basketball, but may prevent you from ever flying a fighter jet. Caution about genetic enhancement of this kind of trait seems motivated by concerns for the open future of the enhanced person.\(^{71}\)

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\(^{70}\) I have elaborated further on this point elsewhere (Malmqvist 2008).

\(^{71}\) However, such concern is arguably limited to the enhancement of a rather small set of traits. David Wasserman (2003: 101) points out that, while increased height might rule out certain opportunities, it is plausible that it would, all things considered, expand the full range of opportunities of the future child. Analogous
There might also be a further reason to be concerned about genetic enhancement from the point of view of the open future argument. Davis mentions in passing that her argument about sex selection and parental expectations would also hold for selection for “height, musical ability, or aptitude for nuclear physics” (Davis 2001: 102). That is, parents who selected any of these traits for their child would have strong, even compelling, expectations that she comply with the life plan for the sake of which the trait was selected. The point made above seems to apply here too: if the argument is to be complete, it has to be complemented by an account of the motives (or attitudes in general) of parents and/or the nature of their relationship to their children, which requires that we move beyond a narrow focus on consequences. This is not so much an objection to the argument as a suggestion about how to make it more plausible and a preparatory remark for the next chapter. For the sake of the present discussion, however, let us assume that an argument along these lines is successful.

Many enhancements would arguably not rule out life plans in any of these two ways. There are two kinds of enhancement in particular that the above arguments seem unable to accommodate. First, there is the enhancement of what Buchanan et al. (2000: 174) call “all-purpose means”, that is: capacities useful for the pursuit of any life plan. The authors point out that the line between this kind of capacities and more specific ones is not clear-cut. Nevertheless, we can imagine that greater disease resistance or emotional stability, or increased capacities for learning and memory – even, perhaps, greater intelligence in general – are conducive to all or almost all life plans. Selection for or enhancement of these capacities escapes the concerns described above because of their generality. Having such capacities does not in itself seem to rule out life plans.

Moreover, our concerns about the parental expectations behind the selection or engineering of this type of trait, and the impact of arguments can be made for other enhancements; perhaps they impose limits on certain ways of life, but they might nonetheless be regarded as net benefits, since they open up more options than they foreclose.

72 Agar (2004: 106-8) points out that whether enhanced intelligence expands or restricts the range of choices of a person depends on the nature of the trait – whether intelligence is best thought of as a singular, unified trait or rather a diverse set of potentially competing capacities. His own discussion, while tentative and inconclusive, seems to suggest that enhancing intelligence might be compatible with protecting the open future of the enhanced child-to-be.
those expectations on the child, should be significantly weaker than in cases where more specific traits are targeted. Parents may of course choose a generally useful trait for a very specific purpose, but they may also, like the parents in case d, choose it for the purpose of facilitating the pursuit of any life plan that their child-to-be may embark upon. In either case, the objection that they view their child primarily through the chosen trait seems less forceful when the trait in question is something like emotional stability than when it is something like a specific aptitude for nuclear physics.

Second, there is the selection for or enhancement of what we might call trivial traits. On the one hand, these traits are the converse of the all-purpose means: they are of little or no use to any life plan. On the other hand, like the all-purpose means, they do not rule out the pursuit of any life plan. Simply put: they are not really relevant to life plans. What I have in mind are traits like eye and hair colour. In ordinary circumstances, the possession of such traits does not rule out or greatly complicate the pursuit of any way of life. And, because of the small relevance of these traits, parents who selected them for their child-to-be would not do so with any particular life plan in mind; hence, the selection would not work as a vehicle for the imposition of their expectations on the child.

It seems, then, that the open future argument, even when complemented by an account of parental expectations, does not give us

73 The notion of ordinary circumstances is important here. We can imagine situations where a certain eye colour, say, is crucial for the pursuit of a certain life plan. For example, suppose that John, a man of great professional ambition, has applied for the job of his dreams at a company and has been summoned for an interview. Suppose that the personnel manager of the company (who conducts the interview) simply does not trust blue-eyed people. Unfortunately, John has blue eyes, which makes him severely disadvantaged compared to other, equally qualified brown-eyed competitors. While not entirely implausible, situations of this kind are too particular to be taken into account by parents-to-be when they contemplate the opportunities of their future child. The colour of John’s eyes turns out to be an impediment for the pursuit of his life plan as a result of very particular, unforeseeable circumstances, not because blue-eyed people in general tend to have restricted opportunities. Therefore, if John’s parents had selected the colour of his eyes, we would be hesitant to blame them for having given their child fewer opportunities than they could have. We can, however, think of circumstances where the colour of one’s eyes generally does affect one’s opportunity to pursue certain ways of life – for instance in strongly racist societies. In such circumstances eye colour would not qualify as what I have called a trivial trait. But we can easily imagine other traits that would be trivial even in such circumstances. (For a detailed account of the closely related issue of the interdependence between circumstances, abilities and opportunities, see Nordenfelt 1995: 40-9)
reason to oppose genetic enhancement of the yet unborn as such. At most it rules out enhancements that are in some sense biased towards specific life plans, either because of the enhanced trait itself or because it is enhanced with a particular life plan or set of life plans in view.

Conclusion

In this chapter, I have continued the search for a way to account for the intuition that there is an important moral difference between using reproductive technologies to select for or enhance desired non-disease traits and, on the one hand, using these technologies for avoiding severe diseases in future persons, and, on the other, “enhancing” children by environmental means. I have explored the idea that selection or engineering for enhancement purposes might be harmful (in the impersonal sense) to those selected or engineered. More specifically, I have tackled the question whether selection for or engineering of non-disease traits might interfere with the autonomy of the selected or engineered person or make her less free in the sense of restricting her opportunities.

The concept of autonomy does not seem to support the suggestion that such an intervention would undermine the autonomy of the future person. The intervention would neither affect the capacities central to autonomy nor qualify as the kind of influence that renders actions non-autonomous. The intuitive wariness of selection for or enhancement of non-disease traits can, however, partly be made sense of by the notion of freedom. There seem to be reasons to be concerned that sex selection and selection for deafness might bring about persons with restricted opportunities – with not-so-open futures.

However, a fuller understanding of the intuition seems to require that we move beyond considering the mere effects of reproductive choices on those that they bring into existence, towards the parents that make these choices and their relationship to their children-to-be. In this chapter two reasons for such a shift in focus have emerged. First, the open future argument – the most plausible consequentialist account of what might be problematic about enhancing future persons – seems to require support from such non-consequentialist considerations. Second, even thus complemented, the open future argument does not seem to fully make sense of the intuitive uneasiness about enhancement of non-disease traits in future persons. A third
reason, mentioned in the previous chapter, can be added. In the face of the Non-Identity Problem, the broadly consequentialist perspective to which the open future argument belongs has to abandon all references to particular persons. It is required to embrace a concern for the impersonal good which has highly unattractive implications in other types of case. A non-consequentialist perspective, like the one developed in the following chapters, is not susceptible to this problem.
CHAPTER 5

Towards a Non-Consequentialist Account: Instrumentalisation in Kant, Heidegger and Jonas

Introduction

So far I have approached the interrelated questions about how to understand the intuition that enhancement uses of reproductive technologies are morally different from both therapeutic uses and environmental enhancement, and whether this intuitive distinction can be justified, in a largely negative way. I have attempted to show that the intuition is not about harm, whether in the ordinary sense of that term, as in the harm principle, or in the impersonal sense discussed in the previous chapter. With this, the broadly consequentialist trajectory of the previous two chapters comes to an end. My aim in the following is to develop a positive account of the intuitive distinction. Beginning in this chapter, I shall try to suggest what it is about. This requires an elaboration of the non-consequentialist perspective already repeatedly alluded to in the previous discussion. The focal point of the inquiry, then, is no longer the consequences of reproductive choices for yet unborn children, but the attitudes of those who make the choices – their parents, aided by medical professionals. I shall argue in this chapter that the reasons to find selection or engineering for enhancement purposes troubling might have something to do with these attitudes. The argument will however require much further elaboration and qualification in subsequent chapters.

The Limits of Familiar Bioethical Principles

One important outcome of the discussion so far is that, if moral intuitions are to be taken seriously, there are limits to the usefulness of some of our most familiar and well-defined ethical concepts, like harm and autonomy. This negative conclusion is not unique to my
argument. Several authors have suggested that there are important concerns with certain uses of reproductive technologies, certain other reproductive choices, or “enhancement technologies” in general, that are not adequately captured by the thin ethical concepts characteristic of mainstream bioethical analyses. Generally, these authors have turned to thicker, more contextual ethical notions in order to explore these concerns.

Thomas Murray, for instance, argues that, when applied to new reproductive practices, the frequently used ethical models built around conceptions of individual rights, choice and control miss the point; they are “like wearing a tuxedo to a beach party” (Murray 1996: 28). He suggests that a more adequate ethical analysis of these practices requires that we take into consideration what we value about parenthood and family life, the role that these phenomena play in human flourishing. Several other authors have in a similar spirit put forward arguments about reproductive technologies centred on particular parental obligations, virtues or attitudes, or on the special moral character of the parent-child relationship (Asch & Wasserman 2005, McDougall 2005, 2007, Herisson-Kelly 2007a, 2007b).

In a recent report, the President’s Council on Bioethics (2003) argue that besides familiar issues like safety and harm, fairness, equal access, and freedom, there are more “essential sources of concern” (ibid.: 286) about biotechnological enhancement: the threat that new technological means pose to the dignity of central human activities, their failure to appreciate the “givenness” of the world and our human nature, and their potential to alter what it means to be an individual. Specifically discussing enhancement uses of reproductive technologies, the Council is particularly troubled about what such uses mean to our understanding of procreation, sexuality, parenthood and family relations (ibid.: 53-7, 68-71).

Ex-council member Michael Sandel (2007) elaborates further on some of these ideas. The problem with using biotechnology to enhance our children or ourselves, Sandel argues, is not captured by concepts like autonomy and fairness. Rather, what is troubling about such uses is that they “represent the one-sided triumph of willfulness over giftedness, of dominion over reverence, of molding over beholding” (ibid.: 85). This attitude of mastery, Sandel goes on to argue,

\[\text{as an example of what I have in mind when speaking of “thin” ethical concepts, see the four principle framework of “principlism”: respect for autonomy, beneficence, non-maleficence and justice (Beauchamp & Childress 2001).}\]
threatens to transform “key features of our moral landscape” (ibid.: 86). Wasserman comes close to this line of reasoning when he suggests that what is troubling with the idea of parents genetically enhancing their children is the unilateral character of the intervention: “To intervene without restraint is to fail to respect the independence and otherness of the beings and processes one encounters” (Wasserman 2003: 109).

I will return to some of these authors. What I want to call attention to now is that, while differing considerably in their respective analyses and conclusions, they all seem to highlight one or both of two themes: our attitude towards the “given” or “natural” and the meaning and value of certain social practices, in particular parenting. My discussion here and in the next three chapters will elaborate on and attempt to connect these two themes.

**Instrumentalisation: the Kantian Approach**

In his recent book *The Future of Human Nature*, Jürgen Habermas (2003) frequently expresses his concern about emerging reproductive technologies and stem-cell research in terms of *instrumentalisation*. The remainder of this chapter investigates whether this notion can contribute to clarifying the intuitive concerns about enhancement uses of reproductive technologies. I shall argue that it does, but that it has to be understood somewhat differently than Habermas intends.

**Never Merely as a Means**

The notion of instrumentalisation traces back to the works of Immanuel Kant, although he did not himself use the exact term, and it continues to greatly influence moral philosophy and bioethics. It is useful for the present discussion of the notion to return briefly to its *locus classicus* in Kant’s *Groundwork of the Metaphysics of Morals*, published in 1785. In that work, Kant seeks to demonstrate that there is such a thing as moral obligation, to which we are committed by our rationality. If there is such an obligation, he argues, it must have the form of a *categorical imperative*: “act only in accordance with that maxim through which you can at the same time will that it become a universal law” (AK 4: 421). This fundamental principle provides us with a method for identifying more particular duties.
In the course of showing why the categorical imperative is necessarily binding for all rational beings, Kant reformulates it thus: “So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, never merely as a means” (AK 4: 429). It is this so-called humanity formulation of the categorical imperative that expresses the familiar ban on instrumentalisation. All actions are undertaken with some end in view, Kant argues, but not all ends are of the same kind. When we act in order to achieve something that we want, that something is a subjective end, whose worth is conditional upon our desire for it. But an unconditional imperative cannot be grounded on such conditional ends. Morality requires for its existence that there be other ends, whose worth is not dependent on any volition, but absolute – ends in themselves. (AK 4: 428) Such ends impose restrictions on the actions of all rational agents, regardless of what they happen to desire.

Kant identifies humanity, that which must be treated as an end in itself, with the rational will, the capacity of persons to be governed by the categorical imperative (AK 4: 428). He then goes on to argue that the rational will is also autonomous, that is that as rational beings we do not only act on our representation of a law, we also create and bind ourselves to the law. Autonomy is the self-legislation of the rational will. (AK 4: 431-3)

In the final part of the argument, Kant identifies autonomy with free will (AK 4: 447). If moral obligation is real, then, there must be such a thing as free will. But Kant has already demonstrated in the Critique of Pure Reason that there can be no metaphysical proof or explanation of the free will. However, insofar as we regard ourselves as rational agents we must presuppose that it exists, that we act freely and not under compulsion. (AK 4: 448) We must, then, also regard ourselves as being governed by moral obligation.

Problems with the Kantian Approach: Embryos and Future Persons

Let us return to the humanity formulation of the categorical imperative. It is often invoked, but it is not altogether clear how it should be made use of in particular bioethical contexts. The problem we are concerned with here is no exception to that. It is arguably even more problematic to apply the Kantian dictum here than in other contexts. Some have invoked the injunction against instrumentalisation as an argument against using or destroying embryos, or against creating
embryos for research purposes (Oduncu 2003). I shall not consider that argument at any length. The reason is that it implies that embryos are ends in themselves, beings protected by morality, rather than mere things; that is, it hinges on some version of the view that embryos have moral status. As I have argued in Chapter 3, no view on moral status helps us draw a moral distinction between different uses of reproductive technologies as long as all the uses involve destroying or manipulating embryos.

What if we turn instead to the child into which the embryo is intended to grow? The suggestion that what is troubling about parents that choose a desirable genetic make-up for their child is that they treat the child as a means to their own ends, rather than as an end in itself, seems to have at least some plausibility. But several factors combine to complicate such an attempt to identify what might be troubling about that kind of choice.

First, not only selection or engineering for enhancement, but also ordinary reproductive decisions, including having a baby through sexual intercourse, are instrumental in an important sense. Parents’ initial choice to have a child cannot be made for the sake of the child, but only for reasons of their own, because they want a child (Davis 2001: 34, cf. Wilkinson 2005: 55). Here it is important, however, to remember that Kant does not require us never to treat people as means at all. (That would be far too demanding a principle; we seem to use others as means to our ends all the time. For instance, when we ask somebody in the street for the time we use her as a means to our own end: to know what time it is). What is important is that we do not treat them merely as means, but also as ends in themselves. This has led some to conclude that parents’ instrumental reasons for having children should not trouble us, as long as the children, once born, are also loved and cherished as ends in themselves (Murray 1996: 2-6). If this is right, it seems difficult to make any distinction at all between different motives for having children. Parents who choose sex, deafness, musical talent or whatever other trait in their future child do not seem to instrumentalise it as long as it, once born, is also treated as an end in itself.

It could still be argued that the parents in these cases do in fact instrumentalise the child if it could be demonstrated that they would fail to treat it, once brought into existence, as an end in itself. One argument of this kind immediately comes to mind. For many ethicists, the humanity formulation of the categorical imperative simply translates into the principle of respect for autonomy. On this standard
view, treating someone as an end in herself means treating her in ways that she can autonomously agree to. This seems to be close to what Kant himself had in mind.\textsuperscript{75} And, as we saw in the last chapter, Habermas’ concerns about instrumentalisation are at least to a large extent concerns about the autonomy of future persons. But an argument to the effect that the future autonomy of the selected or engineered child is violated by the intervention is not available at this point. A large part of Chapter 4 was dedicated to showing precisely that this is \textit{not} the problem with such interventions.

The upshot of these reflections is that if instrumentalisation is to be a useful notion for making sense of what might be troubling about parents genetically enhancing or selecting non-disease traits in their future children, it seems to require some further analysis. The discussion in what follows is an attempt at such an analysis, an attempt that requires going beyond what Kant himself had in mind with his injunction against instrumentalisation. Nevertheless, the analysis can be regarded as broadly Kantian in two ways. First, I will be concerned with the agent’s motive or attitude, rather than the consequences of her action, as the object of moral attention. Second, I will return to the formal Kantian characterisation of instrumentalisation as treating something that has a special status, that of being an end in itself, as if it did not have such a status. However, for the reason mentioned above, I will depart from Kant’s understanding of being an end in itself in terms of possessing a rational autonomous will.

\textsuperscript{75} Various passages in the \textit{Groundwork} support the conclusion that the humanity formulation of the categorical imperative entails something like respect for autonomy as it is conventionally understood in contemporary ethics. Applying the formulation to the case of a false promise, Kant writes: “he whom I want to use for my purposes by such a promise cannot possibly agree to my way of behaving toward him, and so himself contain the end of this action” (AK 4: 430). Also, it should be remembered that what Kant requires us not to instrumentalise is the autonomous will of rational beings. However, the humanity formulation entails a wider set of obligations than most contemporary conceptions of respect for autonomy, including a duty to contribute to the happiness of others and a duty not to commit suicide (AK 4: 429-30).
Instrumentalisation in Heidegger’s Philosophy of Technology

Heidegger’s Concern about Modern Technology

Martin Heidegger’s critique of modern science and technology, most influentially elaborated in “The Question Concerning Technology” (1977a), seems to point towards another way of understanding instrumentalisation. Heidegger is not an ethicist in the Kantian tradition; he is indeed not an ethicist at all in any straightforward sense of the term, although his philosophy of technology clearly resonates with deep moral worry. Seeing what he might contribute to the present discussion of instrumentalisation therefore requires a brief exposé of his argument.

Although Heidegger discusses things like power plants, bridges, windmills and aeroplanes, his concern is not with particular technologies. Likewise, although, in “Science and Reflection” (Heidegger 1977c), he focuses on physics, the points he wants to make do not only pertain to that particular science or even to natural science in general. Rather, what he seems to want to shed light on might more properly be called the Zeitgeist of the techno-scientific age, the all but ubiquitous basic conceptual framework governing our presently dominant social practices, a way of conceiving of and handling the world particularly emergent in – but not limited to – atomic physics and cutting-edge technologies.

Conventionally, we think of technology as a means we may put to more or less successful use to reach whatever ends we may have. Such a characterisation, Heidegger (1977a: 5-6) contends, is not flatly wrong; it is “correct” but not “true” – it fails to capture what he calls “the essence of technology”. Fundamentally, technology is a way that things are made to appear in certain ways to us in our dealing with them. Thus, Heidegger writes: “Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth” (ibid.: 12).76 The way that everything is presented to us in the

76 Here Heidegger’s long-standing interest in the question of truth comes to light. This subject is too far-reaching to treat systematically here. Let me just point out, by way of clarification, that Heidegger thinks of truth precisely in terms of a revealing or unconcealment intrinsic to our being-in-the-world, rather than in terms
age of modern technology is prefigured by (but not fully developed in) the objectifying world-view of the scientific revolution (ibid.: 21-3). Hence, “[s]cience is one way, and indeed one decisive way, in which all that is presents itself to us” (Heidegger 1977c: 156).

It is as a mode of revealing that modern technoscience distinguishes itself from the knowledge and skill of the traditional artist or craftsman, *techne* in the ancient Greek sense of the term. The latter was concerned with *poiesis*, a kind of making or bringing-forth in which things are allowed to reveal themselves autonomously. *Poiesis* in its original sense is characterised by an attitude towards or a relationship with nature as something independently significant, something that the craftsman works *together* with in an act of genuine co-production. (Heidegger 1977a: 10-1) Despite what the term might suggest, this bringing into appearance is not limited to the work of the poet or artist, or even to arts and crafts in general. Even natural growth, *physis* - “the arising of something from out of itself” (ibid.: 10) - is *poiesis*.

It is precisely the kind of consideration or sensitivity towards the nature of things inherent in traditional arts and crafts that the modern technological perspective has lost from view. The mode of revealing characteristic of modern technology makes everything appear as *standing-reserve* (*Bestand* in German), a pure resource, something whose significance is exhausted by its usefulness, its complete being on hand for our efficient ordering. The world of technoscience is a world void of any independent meaning, a world that patiently awaits our manipulation, calculation and stockpiling. As James Edwards (2006: 54-5) illuminatingly puts it, it is a world of anonymous and interchangeable things, mere instances of generalities, whose meaning and use coincide. Or, to use Heidegger’s (1977a: 16) own example, it is the world of the hydroelectric power plant, from the point of view of which the river is only intelligible as a resource for the extraction of energy, and no longer the world of the old wooden bridge, in which the river as *river* was still accessible and meaningful to us.

The mode of revealing inherent in the “[u]nlocking, transforming, storing, distributing, and switching about” (Heidegger 1977a: 16) of nature characteristic of modern technology is thus very different from the ancient poietic bringing-forth. It is a “challenging setting-upon”

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of a correspondence between on the one hand the outside world, and on the other what we think or say about it. See e.g. Heidegger (1996: § 44).
that at once reveals things as standing-reserve and calls us as humans to approach them as such (ibid.: 18-9). In Heidegger’s idiosyncratic terminology, this way of revealing - the essence of modern technology - is termed Enframing (Gestell).

It is important to note just how all-embracing the technological perspective on the world is, or, at any rate, threatens to become. Heidegger is not primarily concerned about the exploitation of nature for human purposes; the very notion of a human purpose dissipates under the spell of technoscience. What is left is only ordering for the sake of further ordering. (Heidegger 1977a: 16-7) The culmination of the ordering of Enframing is the turning into standing-reserve of the very orderer herself: the human subject (Heidegger 1977a: 27, 1977c: 173). Thus, following Heidegger, we may speak of instrumentalisation of a more radical kind than the one Kant had in mind with the injunction never to treat persons as means only. Instrumentalisation in this sense is not about one person using another to achieve some purpose of her own, but rather about a reduction of everything, including persons and their ends, to the utter purposelessness of standing-reserve. It is about a particular way of understanding and dealing with things, rather than about particular persons and their actions and ends.

Applying Heidegger?

A Heideggerian construal of instrumentalisation might, then, escape the difficulties with applying the concept in its original Kantian sense to the case of reproductive technologies. It suggests a fairly straightforward way of accounting for our concerns about enhancement uses of such technologies: parents who use them are guilty of something like an Enframing way of conceiving of their children-to-be, who appear to them as standing-reserve, as something fully available for manipulation and incorporation into the parents’ own projects. And, the argument would go, because we regard instrumentalisation as morally bad, as something that ought to be condemned, we seem to have strong reasons for our concerns.

However, there are great difficulties with such an appeal to Heidegger for the purpose of drawing ethical conclusions.77 There are

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77 James Edwards (2006) considers, and ultimately decides against, using Heidegger for the purpose of drawing straightforward ethical conclusions about limb-lengthening surgery for achondroplasic children. First, he questions whether Heidegger is at all concerned with what he regards as “the final court of appeal
strong reasons, I think, to resist interpreting “The Question Concerning Technology” as providing us with a set of straightforward ethical rules. What I have in mind in particular is Heidegger’s view of our role as human agents vis-à-vis Enframing. He is quite clear about that although the technological mode of revealing occurs within our human practices, it is not therefore under full human control. He writes: “Does this revealing happen somewhere beyond all human doing? No. But neither does it happen exclusively in man, or decisively through man.” (Heidegger 1977a: 24) Rather, Enframing is a way of understanding things that is in an important sense given to us; Heidegger (ibid.) calls it a “destining” that “starts man upon the way of revealing”.

But he makes clear that this does not mean that we are entirely at the mercy of the essence of technology (Heidegger 1977b: 37); he even describes his aim as preparing a “free relationship” to technology (idem 1977a: 1). However, this freedom should not be understood as a freedom to control technology; Heidegger (1977b: 48) even regards such an ambition to be itself grounded in a technological understanding. Neither is it, I think, a freedom to simply place ourselves outside of Enframing, in the sense of choosing some other perspective on the world. Rather, the freedom Heidegger has in mind consists in realising that Enframing is the mode of revealing that we currently receive, the way that we are in the modern age summoned to understand things, rather than the only way to understand them (Dreyfus 1995). This is particularly difficult, however, because Enframing conceals not only the nature of things, but also itself as a mode of revealing (Heidegger 1977a: 27; 1977b: 46). The way things appear to us on

for our ethical practice” (ibid.: 59), namely human suffering and happiness. Edwards’s main argument is, however, rooted in a general scepticism about the usefulness of metaphysics to ethics. He writes: “We expect too much of our philosophical ideas, if we expect them to settle first-order ethical quandaries. […] At a certain point I realize that philosophy, no matter how compelling, can’t be appealed to itself as Bestand, as raw material standing by for us to use in solving ethical problems. We don’t get firm answers to such questions by kicking them upstairs into the airy realm of metaphysics.” (Ibid: 60) Many philosophers would disagree with such a view. Metaphysics is commonly used in ethical arguments (Edwards himself mentions the elaboration of a theory of personhood for the purpose of drawing ethical conclusions about abortion or the treatment of people in permanent vegetative state – surely a familiar approach to many ethicists). As I shall make clear, I think there are reasons why applying Heidegger is difficult that are independent both of the question whether he cared about human suffering and of one’s view on the large and contentious subject of the relation between ethics and metaphysics.
the current technological world-view thus seems to be the way they really are, indeed the only way they could be. But once our role as receivers is understood and embraced – once we are brought to “reflection” (Besinnung; Heidegger 1977c) or “insight” (idem: 1977b) – we are “saved” (idem: 1977a) from the techno-scientific compulsion to control things and beckoned towards a new, more genuine understanding of the world.\(^78\)

What is important to note here is the very limited scope for individual human agency or choice. Enframing is not a perspective that we freely move in and out of; we cannot simply choose whether or not to adopt it in particular actions, practices or relations. This seems to place it outside the realm of moral obligation, at least on the level of particular choices where the cases of Chapter 1 belong. As a matter of ethical convention, ‘ought’ is believed to imply ‘can’; it makes little sense to say that someone has a moral obligation to do something that she simply cannot do. Although Heidegger might perhaps say (as I think he wants to say) that we ought to surrender ourselves to reflection, this peculiar ‘ought’ does not seem to attach to particular persons and actions; its connection to a ‘can’ is weak at best. Translating the Kantian injunction against instrumentalisation into a parental obligation not to view their children as standing-reserve is therefore a move unavailable to us.\(^79\)

These considerations should make us cautious about simply applying – as one would apply familiar ethical principles – Heidegger’s critique of modern technology to the case of reproductive technologies, thereby aiming at drawing normative conclusions about them. Nevertheless, thinking about reproductive technologies in terms of poiesis, Enframing and standing-reserve, as Heidegger elaborates these concepts, brings out something important about these technologies, something that points towards new ways that our inquiry might take. Such thinking is more appropriately described as inspiration than as application.

What Heidegger might help us to call attention to, I think, is the peculiar one-sidedness of enhancement uses of reproductive technologies. It is helpful to consider here the contrast between the poietic

\(^78\) Heidegger develops his account of how this sudden change of understanding might occur in “The Turning” (Heidegger 1977b). For an illuminating discussion of the issue of freedom from the technological world-view, see Dreyfus (1995).

\(^79\) For an in some ways similar argument, see Jonas (1982: ch. 10), who calls attention to Heidegger’s near-fatalism for the purpose of questioning the appropriation of his philosophy for theological (rather than ethical) purposes.
and the Enframing modes of revealing, and the perspectives on nature that inhere in them. On the first perspective, nature is not so much something that we reveal, as something that is permitted to independently disclose itself, while, on the other, it is approached as something whose only meaning lies in its usefulness to our projects (which, as we have seen, are not really ours, but merely parts of a larger project of impersonal technological instrumentalisation), i.e. as something that in itself altogether lacks significance.

An interesting parallel between this distinction and the distinction between the selection or enhancement of non-disease traits in future persons and “environmental enhancement”, like violin lessons or ice hockey training, suggests itself. The former kind of enhancement appears to involve a perspective that in a certain way resembles the technological one that Heidegger maps out, although it may not be as persistent and all-encompassing as that. The latter, on the other hand, appears to retain important aspects of the pre-modern view on things. All kinds of interaction with the child once born seems to involve a certain adjustment to what might be called the “nature” 80 – in the sense of an independent, self-revealing otherness – of the child. There is already something there in the child, a set of potentialities or a still barely discernible personality, that no successful parental effort at socialisation and character shaping can altogether blind itself to. Discussing the precarious task of raising a child into an autonomous adult, Joel Feinberg makes this point eloquently:

At a time so early that the questions of how to socialize and educate the child have not even arisen yet, the twig will be bent in a certain definite direction. From then on,

80 Invoking “nature” or “the natural” in ethical discussions is a problematic move (for a nuanced discussion, see Norman 1996). It should be noted, however, that my use of the term ‘nature’ is innocent of what makes many such appeals dubious. My point is not to identify something as natural in order to draw an ethical conclusion about it. In particular, I do not wish to suggest that certain uses of reproductive technology are morally problematic because they interfere with some natural order. Nor does my use of the notion of a child’s nature beg the philosophically difficult question of what the nature of a person (let alone human nature) is. By the term ‘nature’ I merely mean something along the lines of what Heidegger has in mind: an independently meaningful otherness. That a person has a nature in this sense only means that there is something constitutive of who she is that is not fully reducible to other people’s understanding of her and that others have to take into consideration when interacting with her. This should be uncontroversial.
the parents in promoting the child’s eventual autonomy and well-being will have to respect that initial bias from hereditary and early environment. Thus from the beginning the child must – inevitably will – have some “input” in its own shaping, the extent of which will grow continuously even as the child’s character itself does. [...] At every subsequent stage the immature child plays an ever-greater role in the creation of his own life, until [...] he is at last fully and properly in charge of himself [...]. (Feinberg 1992: 96)

In the genetic enhancement case, on the other hand, there is at the time of the intervention no such thing as a “nature” of the child. In whatever ways the parents might conceive of and plan for their child-to-be, there is at this time still nothing about the child him- or herself that presents itself to them to contribute to the shape that their thinking takes. The selection for or enhancement of desired traits in the child-to-be cannot be adjusted to the particularities of the child, but only proceed according to the plans of those deciding about the intervention. The parents’ plans are exclusively their own. The child appears as a blank slate, as fully passive, offering neither resistance nor encouragement to the enhancement – as something the shaping of which is only limited by current technological possibilities and the wishes of the shapers. This is what I mean when I call such interventions one-sided (perhaps diverging somewhat from the use of that term in ordinary language).

This suggests that what makes many of us more troubled about enhancement uses of reproductive technologies than about for instance violin lessons might have something to do with this one-sidedness. However, two things should be noted at this point. First, I have claimed that the question what our intuitive worries are about may be distinguished from the question whether they are justified (although these questions interconnect). Since I have argued that Heidegger’s philosophy should not be applied as a set of ethical principles, it can here only play the role of suggesting the beginning of an answer to the first question. It can help us identify the one-sidedness of genetic enhancement and selection of non-disease traits, but not in itself give us reasons to object to it. The question remains: why worry about one-sidedness?

Second, I have not yet said anything about whether the identified one-sidedness is of any help for making a distinction between en-
hancing interventions and interventions that aim at avoiding dis-

ease. That is: are therapeutic interventions any less one-sided than
enhancing interventions, and, if not, is there anything that should
make us less worried about one-sidedness in therapeutic cases? In
search for an answer to the questions left in suspension here, I now
turn from Heidegger to his disciple and critic, Hans Jonas.

Instrumentalisation in Jonas’s Ethics

Philosophical Biology and Ethics of Responsibility

Like Heidegger’s “The Question Concerning Technology”, Jonas’s
The Imperative of Responsibility (1984) can be read as a response to
what we might call the predicament of the technological age. But
there are great dissimilarities between the philosophers, two of which
need particular attention here. First, Jonas’s philosophy is decisively
and explicitly an ethics. Second, while Heidegger attempts to uncover
the world-view that he believes to be concealed at the heart of modern
science and technology, Jonas’s main concern is with something
seemingly more tangible: the impact of technology on the conse-
quences of human actions. What sets our historical epoch apart from
earlier ones, he argues, is that technological mediation has rendered
the effects of our actions radically more powerful and, at the same
time, radically less foreseeable and controllable, than ever before.
Traditional ethical systems cannot match this change, because they
presuppose certain constants – most notably the continual existence
of a recognisable humanity – that are now themselves jeopardised.
Jonas’s project is to elaborate an ethics that is able to deal with this
new situation. (Jonas 1984: 6-8, 17-8, 21-4)

81 For discussions of the relation between Heidegger’s philosophy of technology
and Jonas’s ethics, see Bernstein (1995) and Levy (2002: 79-82), who both regard
The Imperative of Responsibility as a response to Heidegger (on Levy’s view a re-
sponse to Heidegger’s question far more constructive and humane than Heideg-
ger’s own). Jonas himself never explicitly refers to his teacher in that work. How-
ever, in his earlier work The Phenomenon of Life (1982: ch. 9) his response to the
 crisis of nihilism is particularly directed to what he takes to be its most important
modern representative: Heidegger’s Being and Time. And since Jonas’s whole phi-
losophical project can be described as a critique of nihilism (Vogel 1995), The
Imperative of Responsibility can be read as an implicit critique of that work.
At the centre of the Jonasian ethics of responsibility is a new kind of categorical imperative: “Act so that the effects of your action are compatible with the permanence of human life”, or: “Do not compromise the conditions for an indefinite continuation of humanity on earth” (Jonas 1984: 11). Like Kant, but unlike most contemporary ethicists, Jonas attempts to found his imperative on something independent of both subjective preference and religious creed. This makes the argument take a decisively metaphysical turn. Jonas’s search for an objective foundation of our fundamental obligation towards humanity leads him to value-ontology – to the question of the existence of value (ibid.: 49-50).

Here he draws on his earlier work The Phenomenon of Life (1982), which is, among other things, a sustained argument for the existence of purposiveness in nature. The teleological human mind, Jonas contends, is not a mark of distinction, but of continuity, between her and the rest of organic nature. Human subjectivity is prefigured by the “needful freedom” – the simultaneous necessity to exchange matter and independence from material self-identity – integral in the process of metabolism. By virtue of this process, every living organism displays a basic teleology, a continual affirmation of its own existence against the threat of non-existence, or simply put: a striving to remain alive. In The Imperative of Responsibility, this purposiveness is given an axiological significance only just hinted at in the earlier work: “We can regard the mere capacity to have any purpose at all as a good-in-itself, of which we grasp with intuitive certainty that it is infinitely superior to any purposelessness of being” (Jonas 1984: 80, emphasis in original). Jonas regards this as undeniable, as an “ontological axiom” (ibid.).

The next step of the argument is to elucidate the relation between value (the good-in-itself of organic nature) and the obligations of moral agents. Jonas conceives of the affirmation of being constitutive of life as expressing a claim to continual existence. Moral obligation arises when such a claim encounters a creature with both the capacity to recognise it and the power to concede or deny it: a human moral agent (Jonas 1984: 82). What makes an action a moral action is that it responds to this ontological summons, and what makes us potential moral beings is our capacity for such responsiveness. And obligation requires for its exercise an emotional correspondent: the appeal of the good-in-itself elicits in us a feeling of responsibility (Ibid: 85).

Jonas is quick to point out the contrast between his account and the predominant theories of the history of ethics. The source of moral
obligation and its corresponding feeling is, for instance, neither the will of the moral agent (as Kant held), nor some eternal, transcendent entity (as Plato and religious ethicists of various alignments would have it), but immanent being, beheld in its contingency and fugacity (Jonas 1984: 86-90). As a good-in-itself, it is not something that we make the object of our responsibility, but rather something that makes us its responsible guardians: “The independent good demands that it become purpose” (ibid.: 84).

With this, Jonas has established both the objectivity of value and a conceptual connection between value and obligation. However, he does not yet seem entirely satisfied. The real authority of moral obligation hinges on there really being something that is not only in itself valuable, but also summons us to responsibility. Jonas seems to believe that demonstrating the existence of such an objective, obligating ought-to-be needs further argument. The reason why he dwells on this stage of the argument is that it flies in the face of much contemporary thinking, which emphasises the distinction between the categories of being and value (that of which we say that it is and that which we say ought to be). In particular, the materialist world as described by the natural sciences seems to encompass only the first category.\(^82\) What Jonas needs is “an ontic paradigm in which the plain factual ‘is’ evidently coincides with an ‘ought’” (Jonas 1984: 130, emphasis in original). And, he argues, such a paradigm is indeed readily available to us, namely in the phenomenon of the newborn baby, “whose mere breathing uncontradictably addresses an ought to the world around, namely, to take care of him. Look and you know.” (Ibid.: 131) The newborn is the archetype of responsibility; it exemplifies with unrivalled clarity the responsibility-seeking vulnerability – the precarious balance between being and non-being – characteristic of life (ibid.: 134-5).

As we have seen, however, Jonas is not primarily interested in establishing moral obligations towards living beings qua living. Nor does the imperative of responsibility require us to treat future individuals in any particular way, since that which does not exist cannot have a claim on our responsibility (such a claim is part and parcel of the being of something good-in-itself) (Jonas 1984: 38-9, 132-3). What in the present age of technologically amplified action is threatened with non-existence and therefore requires to be taken as an object of

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\(^{82}\) At this point of the argument there is another obvious continuity with The Phenomenon of Life, namely the critique of materialism.
responsibility is humanity itself, as an ontological idea. Jonas attempts to establish a duty of humanity to remain recognisably human. Since there can be no responsibility without humanity, responsibility in Jonas’s sense is responsibility for its own condition of possibility. (Ibid.: 42-3, 99-100) This makes intelligible the somewhat surprising claim that “it is less the right of future men [...] than their duty over which we have to watch” (ibid.: 42, emphasis in original). This entails an ethics of conservation rather than progress, of fear rather than hope (ibid.: 139), and a large part of The Imperative of Responsibility is a critique of utopianism in precisely this cautious spirit.

On How Not to Use Jonas’s Imperative

Again the question of applicability arises: of what use is Jonas’s ethics of responsibility for our attempt to articulate the uneasiness about enhancement uses of reproductive technologies in order to determine its justifiability? In particular: can it add anything to the above suggestion that our qualms might have something to do with the one-sidedness of such interventions? Using Jonas at first glance seems less problematic than using Heidegger. After all, he is, like us, concerned with moral obligations to future generations. He even offers us a clear (but abstract) ethical principle: an imperative to preserve humanity qua bearer of responsibility.

However, Jonas’s theory is designed to address problems on another scale than the ones we are concerned with here. It is clearly an ethics for an age of a looming disaster (even apocalypse, Jonas 1984: 140) – a nuclear war, a major environmental collapse, or something else of that magnitude. It is much less obviously an ethics apt to deal with particular individual choices, like the ones emerging reproductive technologies allow prospective parents to make on behalf of their children-to-be. Jonas explicitly intends his imperative to cover the collective decisions of statesmen rather than the doings of private citizens (ibid.: 12). This makes sense in the light of his (rather commonsensical) view of responsibility as the function of power (ibid.: 6-7, 129-30). Arguably, the power to avoid the disaster that Jonas fears is in the hands of collective governments and lawmakers rather than individual citizens.

Therefore it is no surprise that the suggestion that what troubles us about certain uses of reproductive technologies is that they violate humanity’s duty to existence makes little sense, at least in individual cases like the ones considered here. It seems like a gross exaggeration
to say that the future of humanity is at stake in any of the cases described in Chapter 1. However, it might be suggested that the intuition is not about individual cases, but about a generalised use of reproductive technologies, merely exemplified by the cases — about a society where the choices of the kind that the cases illustrate have become commonplace.

It still seems somewhat hyperbolic to claim that selection for sex, disability and a limited range of desired traits in future generations even on such an aggregate level threaten the very idea of humanity. For such a suggestion to make sense, one would have to assume that this kind of choice is the first step on a slippery slope leading to much more radical genetic modifications. When Jonas explicitly discusses reproductive and genetic technologies, he indeed has in mind much more radical changes in the genetic make-up than the ones we are concerned with here.83

I think that a slippery slope explanation of the intuitive qualms about enhancement uses of reproductive technologies fails, at least if not supported by independent arguments. It seems unable to account for the intuitive difference between therapeutic and enhancement cases. Why should we fear that cases b through d, but not case a, pushes us towards a future use of reproductive technologies so extended that it threatens the very future of humanity? Why not regard uses like the one in case a as the first step on the slippery slope? Therapeutic and enhancing uses of reproductive technologies would presumably operate with the same technologies and the same kind of genetic knowledge. A slippery slope account seems to beg the question what is relevantly different about therapeutic and enhancement

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83 In The Imperative of Responsibility, Jonas (1984: 21) briefly mentions “genetic control of future men” as an example of the kind of technology his argument is designed to address. His reference to man’s ambition to “take his evolution in hand” (ibid.) seems to suggest that he has rather comprehensive genetic modifications in mind. Jonas postpones a more detailed discussion to a later “applied” work. He seems to refer to Technik, Medizin und Ethik: Zur Praxis des Prinzips Verantwortung, a collection of essays published in 1985, which he regards as a sequel to The Imperative of Responsibility. Unfortunately, that work only contains one essay that discusses genetic and reproductive technologies at any length. That essay, however, was originally published before The Imperative of Responsibility and anticipates several of its central themes. In that essay it is clear that he imagines much more radical redesign of future generations than what is being discussed here. This is evident, for instance, in his argument that the engineering he has in mind cannot be in the interest of those engineered, “because for novel kinds of creatures we cannot form an idea of their good” (Jonas 1974: 165).
uses, despite this technological similarity. And this is of course the very question under discussion in this dissertation – the question to which we hoped that the slippery slope argument might deliver an answer in the first place.

Reproductive Technologies, Instrumentalisation and the Attitude towards the Child-to-Be

For these reasons, if Jonas is to be of any help for the present discussion, it is not because of his own (rather brief) discussions of the technologies we are concerned with here. But there is a way in which his ethics of responsibility might help us to elaborate on the point brought out above with the help of Heidegger: that there seems to be something one-sided about parents using reproductive technologies to enhance their children-to-be. For there is a continuity between the two in that they are both concerned with what in very broad terms can be described as the relation between self and other. Heidegger’s concept of Enframing describes a world-view in which nature as a self-revealing otherness has no place any longer. For Jonas, it is precisely such a self-revealing otherness – the independent but fundamentally transient purposiveness of organic nature – that summons our moral reaction, holds us responsible for the way we treat it. Both of them (but only Jonas explicitly) seem to want us to find within ourselves a certain attitude or stance towards this otherness: in Heidegger’s case a kind of letting-things-be and in that of Jonas a kind of responsiveness. Both are concerned that such a stance might get lost in an economic-scientific calculus where everything is placed on a single scale of meaning and value: utility for us.

Placing the relation between the growing child and the parent (who is of course not necessarily the biological parent) in the Jonasian template of responsiveness brings out something important about the phenomenon of child rearing that has not been sufficiently recognised in the discussion so far. It is a process that involves a larger measure of mutual activity than the Heideggerian understanding of poiesis seems to grant. The rearing of a child does not only involve

84 I am using the terms ‘self’ and ‘other’ with certain caution here, because a central strand in Heidegger’s philosophy is a critique of how these categories have typically been, and continue to be, conceptualised. In particular, the traditional split between the self and the world and other selves is challenged by two of the key concepts of Being and Time (1996): being-in-the-world (In-der-Welt-sein) and being-with (Mitsein).
allowing its “nature” to gradually show itself, but also responding to this self-showing “nature”. Feinberg’s suggestion that the parent has to “respect that initial bias from hereditary and early environment” should, I think, be read as containing both elements. Respect in this context is definitely not about avoiding interfering with the “initial bias”. Rather, it is a matter of allowing it to play a certain part in the rearing, sometimes encouraging it, sometimes curbing it, always somehow relating to it.

In short, Jonas helps us bring out the dialogical character of parenting, something not altogether discernible solely from the point of view of the concept of poiesis, as Heidegger explicates it in “The Question concerning Technology”. But he also allows us to more fully articulate something else implicit in that concept: a certain temporality. Poiesis implies a degree of passivity vis-à-vis nature; it is a mode of revealing that allows things to reveal themselves. Poietic action awaits this independent self-revelation. We might say that the initiative belongs to nature. This temporal order is more pronounced in the phenomenon of the moral response, which is necessarily a response to something prior in time. The initiative does not belong to the moral agent, but to the good-in-itself, to the creature that demands to be treated responsibly.

The suggestion that parenting is a responsive practice is, then, a suggestion that it involves a dialogical and a temporal element. This helps us to spell out more clearly the difference between environmental enhancements of existing children (like violin lessons) and the use of reproductive technologies to enhance children-to-be. Enhancement efforts of the former kind belong within a relation characterised by the responsiveness outlined above. They necessarily await the independent appearance of something to enhance – a set of traits or potentialities, however rudimentary, or a nascent personality. And they allow the child to play at least a minimal part in a dialogical process, if very young perhaps only through its “initial bias”, if older through more conscious compliance or reluctance, even through wishes. In either case, both the shape of the process and its end (the “enhancement”) is something that it to some degree influences.

But the enhancement of a future child lacks both the dialogical and the temporal character of responsiveness. The enhancement effort, at the time of the intervention, is not directed towards a concrete other but towards a projection of the hopes, fears and predictions of the parents and others. Insofar as the child-to-be itself can at all be regarded as a pole in a relation, it is wholly at the receiving end, not
part of a dialogue at all. There is still nothing there to which the enhancement can be adjusted, nothing for the sake of which it is done. With respect to the sought after enhancement the parents are free of the element of wait-and-see inescapable in all enhancements achieved in the social interaction with an already existing child. In short, the enhancement does not await a child to respond to. This adds a dimension to the above suggestion that such interventions are characterised by one-sidedness.

Habermas comes close to this line of reasoning when he writes: “With genetic enhancement, there is no communicative scope for the projected child to be addressed as a second person and to be involved in a communication process” (Habermas 2003: 62). The rearing of an existing child is different, he argues, because it is a communicative, interactive process, in which “expectations underlying the parents’ efforts at character building are essentially ‘contestable’” (ibid.). What Habermas wants to suggest, I think, is not that the child is always free to consent to or refuse the parents’ efforts (a highly implausible claim), but that it is at least allowed to play some part in the process.

But, to repeat the question posed earlier, why worry about one-sidedness? The answer seems more straightforward from a Jonasian than from a Heideggerian point of view, because, again, Jonas’s philosophy is explicitly an ethics. In particular, he allows us to speak of instrumentalisation in a way more congenial to the Kantian tradition than the Heideggerian take on the concept sketched earlier. As we have seen, for Kant instrumentalisation is a matter of treating an end in itself - a person, a being with dignity - as if it lacked this status, as a mere means. Jonas’s ethics suggests a way of understanding instrumentalisation that shares the formal structure of this characterisation, but differs from it in its substance. Like Kant, he believes that certain things are independently valuable and demand certain treatment, but, unlike Kant, he does not regard the possession of an autonomous will as the necessary and sufficient condition for having this status. Rather, having objective value, being good-in-itself, is having the peculiar ontological capacity to elicit a moral response. To instrumentalise such a being, to treat it as if it lacked objective value, then, means treating it as if it did not make such an appeal to us - that is, making ourselves deaf to its summons.

This suggests an answer to the question of what we might find troubling about genetic selection or engineering for enhancement purposes: such interventions are, because of their non-responsive-
ness, instrumentalising. And, insofar as we believe that instrumentalisation is morally wrong, it seems that we should indeed be troubled by them. The ethical conclusion follows because the Jonasian notion of responsiveness not only describes the phenomenon of child rearing, but also identifies what makes it a moral practice. To describe a parent’s action as a genuine response to an appeal that arises from the child is at the same time to pick it out as worthy of moral approval. By being treated with responsiveness, the child is treated as an end-in-itself. And conversely, treating a child in a non-responsive way is failing to treat it as an end-in-itself; it is to instrumentalise it.

But here the critic might ask: why should we be persuaded to draw such a straightforward ethical conclusion from the description of the enhancement of a child-to-be as non-responsive? The answer, it seems, would have to invoke Jonas’s metaphysics, in particular the idea of an objective ought-to-be that summons us to responsibility. But then the critic would follow up: why should we accept this metaphysics? The burden of proof that the question puts on the proponent of a Jonasian account seems particularly heavy because such an account is at odds with the predominant (anti)metaphysics of our time. The problem can also be stated in terms of reflective equilibrium: why should we expect rather unpopular metaphysical beliefs to play a crucial role in the justificatory webs of beliefs of those who are troubled by certain uses of reproductive technologies? The point is not that Jonas’s metaphysics is incorrect (I remain neutral on that question), but that it is difficult to invoke for the purpose of explaining a presumably reasonably widespread moral concern.

However, I think that The Imperative of Responsibility can be read in a metaphysically more innocent way than Jonas himself intended. We may sympathise with his emphasis on an attitude of humility or sensitivity towards the needs of the other without subscribing to the idea that this attitude is the response to the appeal of an objective ought-to-be. I think most would find his description of the phenomenon of the newborn baby accurate. We do not first neutrally observe the baby, then ascertain that it is vulnerable and will die if not taken care of, and then, finally, conclude from whatever moral convictions

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85 See, for instance, Lawrence Vogel’s (1995) discussion of Jonas in the context of environmental ethics. Vogel is sympathetic towards Jonas’s philosophy of biology and clearly wants environmental ethics to draw on its insights, but is not convinced by the “metaphysical leap” to the idea of purposeful nature as an objective ought-to-be.
we have that we ought to take care of it. Rather, the imperative to take care of the baby seems given to us in the very perception of it. We would probably doubt the moral character of a person who upon observing the baby is incapable of a feeling of being “pulled” into taking care of it. At the very least, if we were the child’s parents, we would think twice before having such a person look after it.

In short, what I suggest is that, whatever our metaphysical convictions, we share with Jonas an appreciation of the attitude of responsiveness that I have described. This is a very general observation, and ethicists of different theoretical convictions would find different, more or less convincing, ways of accommodating it. A utilitarian might find an attitude of responsiveness conducive to the self-effacing behaviour necessary for the maximisation of aggregated pleasure or preference-satisfaction. A proponent of a rights-based ethics would perhaps regard it as a propensity to recognise and respect the otherwise easily overlooked rights of others. A virtue ethicist might see it as expressive of the virtue of humility. Neither account would necessarily have to appeal to anything like a Jonasian value-ontology.

While we tend to approve of an attitude of responsiveness, we are sometimes worried about its opposite: what I have described as one-sidedness and non-responsiveness. The above example of the person that neutrally observes the vulnerable newborn, unable to feel engaged, illustrates this. And just as different theoretical frameworks seem to be able to provide us with different reasons to value an attitude of responsiveness, they may offer different reasons to worry about the opposite kind of attitude. The utilitarian would not regard it as intrinsically problematic, but perhaps as derivatively so - as a disregard for the good of others, for the most part detrimental to the maximisation of total utility (typically, of course, partly constituted by the utility of others). Similarly, the proponent of a rights based view would not see it as a rights violation per se, but perhaps as a tendency to overlook the rights of others, or as an insensitivity towards the needs or interests on which these rights are grounded. The virtue ethicist might regard it as reason to ascribe to someone a blameworthy character trait (ruthlessness, say).

If I am right about this, there seems to be a new way of understanding the intuition that there is something troubling about prospective parents using reproductive technologies to enhance their future child. On this account, what troubles us is the parents’ or medical professionals’ attitude or stance towards the child-to-be, or
the way that they conceive of it – what I have first identified as onesidedness and then described more fully in terms of non-responsive-
ess. This explains why the intuition does not seem to attach to par-
ents’ efforts to enhance their existing children by environmental 
means. I have argued that such enhancement need not involve that 
kind of attitude towards the child.

Three things should be noted at this point. First, while I have 
suggested that the notion of a one-sided, non-responsive attitude 
might help us account for how enhancement uses of reproductive 
technologies are morally different from environmental enhancement, 
I have said nothing about how it might help us explain how it differs 
from using such technologies for the purpose of avoiding severe dis-
ease. I have declared my aim to be to account for and test the justifi-
ability of an intuitive belief encompassing both these distinctions. If 
the notion of one-sidedness is to be of any help in reaching this aim, 
then, it should allow us to make sense of the latter distinction too. 
This appears problematic: are not all uses of reproductive techno-
lologies discussed in this dissertation – indeed all decisions about peo-
ple that do not yet exist – one-sided and non-responsive in the sense 
that I have given those terms? Clearly, more needs to be said about 
this difficulty.

Second, from the perspective of parental attitudes one can only 
establish a very rough distinction between genetic engineering or se-
lection for the purpose of enhancing future children and environ-
mental enhancement of existing children. The kind of non-respons-
ive, one-sided stance identified in the first kind of case may well be 
present also in the second. I am thinking of particularly overbearing 
(perhaps abusive) rearing, where little or no consideration is given to 
the interests of the child. My point is not that parents never display 
that kind of attitude towards their existing children (that would be a 
naive suggestion), but rather that the possibility of the opposite kind 
of attitude, an attitude of sensitivity and responsiveness, is always in 
principle open.

Third, and most important, our disapproval of non-responsive at-
titudes is obviously limited and conditional. I have suggested that we 
share an appreciation of the responsiveness towards the other de-
scribed by Jonas, whatever we may think of his ontological claims; 
but once separated from these claims, this appreciation alone does 
not seem to establish any categorical obligations. If a responsive atti-
dute is not conceived of as elicited by an objective ought-to-be, it loses 
much of its elevated status. I have suggested that persons of different
theoretical convictions may indeed find various roles for responsive and non-responsive attitudes to play within their respective theories. But in comparison with Jonas’s theory, these roles will appear derivative or secondary. The moral rightness of an action will no longer be constituted by its being responsive, and, conversely, non-responsiveness will not be constitutive of moral wrongness. In the light of the discussion in this chapter there is certainly something instrumental about a non-responsive attitude towards the other. But such an attitude does not in itself amount to instrumentalisation in a sense as strong as Kant’s. The question may still arise if it is at all morally condemnable.

As an illustration, consider an example from another context. Two corporate executives, representing two different companies, are negotiating a business deal, and after long discussions, they agree and sign a contract stipulating the terms and conditions of the deal. Let us assume that they have no personal relation or sympathies towards each other and are only interested in forwarding their own ends and those of their respective company. Suppose also that they both have good reasons to believe that the deal is, all things considered, in their respective interests, thus specified. And suppose, finally, that both fully understand the contract and its implications.

Under these conditions, it seems that each of the two executives approaches the other in precisely the one-sided, non-responsive mode that I have outlined: the meeting is void of dialogic qualities, each regards the other merely from the perspective of their respective company’s interests. But is this a reason for moral concern? Most of us would say that it is not. We would be troubled by certain ways that the one might take advantage of the other, for instance by threats or deception. But, because each regards the deal as being in her respective interest and consequently wants to sign the contract, there is no reason for either of them to resort to threats. And the function of the institution of contract signing is precisely to guard against such things as deception. As long as there is no force or threat of force involved and the contract is drawn up and understood correctly by both parties, we are not concerned that either of them is unduly taken advantage of.

The example demonstrates that a one-sided, non-responsive attitude in dealing with others is not always morally problematic. That kind of attitude might, for various reasons, often or for the most part, but hardly unconditionally, be a source of moral concern. Our general disapproval of such attitudes might explain why we feel uncomfor-
able about enhancement uses of reproductive technologies. However, in the absence of a Jonasian value-ontology, this falls short of justifying our discomfort. That is, the notion of one-sidedness helps to account for what the intuition is about. But whether we really should be troubled about such an attitude on the part of prospective parents and medical professionals remains an open question. In short, we still lack a convincing account of the moral significance of one-sidedness. That account will also need to elucidate more fully the relation between that kind of attitude and instrumentalisation in a strong moral sense, and allow us to distinguish morally between different uses of reproductive technologies.

However, the example also suggests a way to begin sketching such an account. I have said that most of us would not be particularly concerned about the attitudes of the business executives. We might regard it as necessary in a social practice of the kind in which they are engaged, or perhaps even as commendable in virtue of its conduciveness to the ends of that practice. But we would, I think, be significantly more troubled if they displayed the same kind of attitude in their private relationships – if they for instance conceived of their friends or spouses in the same way as they conceive of each other. This suggests that the moral significance of an attitude of the kind I have described in this chapter might depend on the social practice in which one is engaged and the role that one plays in that practice.

Thus, it is not surprising that the first answer that comes to mind to the question why we should worry about parents’ one-sidedness towards their children is: because they are the parents of those children. However, that answer, which is indeed part of the answer that I intend to offer, is still premature. It will require rather extensive conceptual work in order to be at all convincing. That work will involve outlining an account of medicine and parenting as practices, as social activities that are organised towards certain ends and that constitute arenas for moral action and the good life. The concept of practice shares with Heidegger’s take on instrumentalisation important roots in Aristotelian practical philosophy;86 so there is a certain continuity between the discussion in this chapter and the analyses in what follows.

86 One of the few explicit references in “The Question Concerning Technology” (Heidegger 1977a: 13) is in fact to Aristotle’s famous discussion in the Nicomachean Ethics, Book VI of techne, poiesis and other important concepts. I shall return to that discussion. The great importance of Aristotle’s practical philosophy for Heidegger has been highlighted by, for instance, Franco Volpi (1996).
Conclusion

In this chapter I have taken a few first steps towards a non-consequentialist way of understanding the intuition that there is something troubling about prospective parents using reproductive technologies in order to select for or enhance non-disease traits in their children-to-be. I have followed Habermas in giving the Kantian notion of instrumentalisation a central place in the discussion, but unlike Habermas (and Kant) I have treated it as independent of the notion of autonomy. Drawing on Heidegger’s critique of modern science and technology and Jonas’s moral philosophy, I have suggested that what raises our moral warning flags when we imagine enhancement uses of reproductive technologies might be that they involve a non-responsive, one-sided attitude towards the child-to-be. However, our disapproval of that kind of attitude can only be limited and conditional. It might explain why we do feel troubled about such uses, but it is not sufficient to show that we really should be troubled. Should we? I now turn to that question.
CHAPTER 6

Reproductive Technologies and Aristotelian Practical Philosophy

Introduction

In the previous chapter I began mapping out an account of what makes selection or enhancement of non-disease traits in future children intuitively more morally unsettling than both similar interventions that aim at avoiding disease and parents’ efforts to enhance their already existing children. I suggested that such choices are characterised by a peculiarly one-sided and non-responsive stance towards the child-to-be. My claim was that the intuition makes sense as a belief about that kind of attitude, but that claim is not yet an answer to the question whether it is a belief that we actually should have. Why should we be morally concerned about the one-sidedness that I have described? That question shall remain in the foreground in this and the following two chapters.

When I first set out to explore the intuition, I did so within a broadly consequentialist framework, centred on notions like harm and benefit. Having found that approach unsatisfying, I turned to instrumentalisation, a concept situated within a broadly Kantian, deontological framework. My attempt in what follows to answer the question with which my reflections on instrumentalisation ended belongs within a third major framework of normative ethics. The line of argument in this and the next two chapters can be characterised as Aristotelian, in a wide sense. It draws on, and attempts to bring together, themes from the so-called neo-Aristotelian approach in analytical moral philosophy and Aristotelian strands of thought received and developed within the hermeneutical tradition. In this chapter I explore, by way of a benevolent critique of a virtue ethical argument about reproductive technologies, two crucial concepts in Aristotelian practical philosophy: phronesis (practical wisdom) and praxis (practice). In the next chapter I employ these concepts to analyse the setting in which the use of such technologies takes place: the practices
of medicine and parenting. Finally, in Chapter 8, I draw on this analysis of practical wisdom in medicine and parenting to respond to the question whether the intuition can be justified.

Parental Virtue

_Humility and “Acceptingness”_

One possible way to approach the question of the moral significance of one-sidedness is from the point of view of a conception of what it means to be a good parent. Sometimes concerns about reproductive technologies are framed in such terms. In a recent book, Michael Sandel (2007) criticises the predominant consequentialist and autonomy based approaches in the biotechnological enhancement debate. The real problem with enhancement, he suggests, rather has to do with a lack of humility, or an erosion of what he, following the theologian William F. May, calls an “openness to the unbidden”\(^87\). Concerning parenthood he writes:

> In a social world that prizes mastery and control, parenthood is a school for humility. That we care deeply about our children, and yet cannot choose the kind we want, teaches parents to be open to the unbidden. Such openness is a disposition worth affirming, not only within families, but within the wider world as well. It invites us to abide the unexpected, to live with dissonance, to reign in the impulse to control. (Sandel 2007: 86)

Sandel is concerned that the increasing scope for biotechnological intervention puts precisely this tendency to accept the given as given at stake. The argument is open to various interpretations in terms of ethical theory, but, on the face of it, it seems to have to do more with virtue than with harms and benefits on the one hand, and with rights

\(^{87}\) Sandel refers to comments that May made at a session of the President’s Council on Bioethics (2002b). Both May and Sandel were Council members at the time of that session.
and obligations on the other. Indeed, Sandel (2007: 46) describes the openness to the unbidden as “a quality of character and heart”.

Rosalind McDougall (2007) puts forward an explicitly virtue ethical account of the ethics of reproductive technologies that she regards as an alternative to the dominant focus on reproductive freedom and harm. Her argument somewhat resembles Sandel’s rather sweeping remarks about parental humility, but is theoretically more rigorous than those. Drawing on the neo-Aristotelianism developed in a series of works by Philippa Foot and Rosalind Hursthouse, she elaborates a notion of parental virtue and brings it to bear on the issue of deaf parents who want to select deaf babies. Such choices are wrong, McDougall tentatively concludes, because they are at odds with the parental virtue of “acceptingness” – a disposition to accept one’s child “regardless of his or her particular current characteristics” (McDougall 2007: 185, 188-9).

The basic structure of the argument is laid out as follows. It rests on three neo-Aristotelian claims:

An action is right if and only if it is what a virtuous person would do in the circumstances. [...] A virtuous person is one who has and exercises the virtues. [...] Virtues are character traits conducive to human flourishing, tak-

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88 It should be noted that Sandel does not subscribe to virtue ethics, or to any other basic normative framework for that matter. He is apparently unsatisfied with the prevailing theoretical approaches in the enhancement debate, but does not offer any theory in their stead. His concerns about the impact of an attitude of mastery on “key features of our moral landscape” (Sandel 2007: 86) may seem straightforwardly consequentialist, but he explicitly resists such an interpretation (ibid.: 95-7). One has to be careful not to read too much virtue ethics into Sandel’s argument either; his “concern with enhancement is not as individual vice but as habit of mind and way of being” (ibid.: 96). The purpose of comparing his argument with McDougall’s explicitly virtue ethical line of reasoning is to call attention to a difficulty that both of them share.

89 In the title of her paper, McDougall calls her approach “A new way of thinking about the morality of reproductive actions”. However, her argument closely resembles an argument against sex selection that she puts forward in an earlier paper (McDougall 2005). My discussion will focus on the argument in the 2007 paper; it is both more recent and theoretically more well-developed. For an argument about abortion that is in some ways similar, see Hursthouse (1991).

90 See for instance Foot (2001, 2002a and 2002d), and Hursthouse (1999) for articulations of the neo-Aristotelian position. One major influence of these two authors who should be mentioned (besides Aristotle) is Elisabeth Anscombe, who is sometimes accredited with having founded contemporary virtue ethics with her essay “Modern Moral Philosophy” (1958).
ing facts about human life as given. (McDougall 2007: 182-3)

When these claims are made about parental action, rather than action in general, they are transformed as follows:

An action is right if and only if it is what a virtuous parent would do in the circumstances. [...] A virtuous parent is one who has and exercises the parental virtues. [...] Parental virtues are character traits conducive to the flourishing of the child, taking facts about human reproduction as given. (McDougall 2007: 184)

McDougall goes on to identify three parental virtues, which conduce to the child’s flourishing, given certain facts about reproduction: “acceptingness”, “committedness” and “future-agent-focus” (ibid.: 185-6) The unpredictability of the characteristics of the future child is the fact about reproduction that makes acceptingness a virtue (ibid., cf. McDougall 2005: 603). And finally, as we have seen, it is because acceptingness is a parental virtue that selection for deafness is problematic.

McDougall’s argument suggests a way to approach the moral significance of the one-sidedness described in Chapter 5, namely by associating that attitude to a lack of parental virtue. One-sidedness on the part of a prospective parent, an argument along these lines would go, is morally problematic because it is an attitude that a good parent, one who is appropriately accepting towards her child, would not have. Is such an argument tenable?

Now, McDougall is certainly right in that part of what it means to be a good parent is to be disposed to have an accepting attitude towards one’s child, just like Sandel is right to suggest that humility is often appropriate for parents. But surely, there are limits beyond which acceptance and humility should no longer be required or even tolerated. Acceptance and humility are not the appropriate responses when a parent is confronted with illness, or aggressiveness, or a learning difficulty, in a child. The illness ought to be cured, the aggressiveness (once properly understood) firmly dealt with, and the learning difficulty (again once understood) overcome, or at least negotiated. What is called for here seems to be quite the opposite of acceptingness and humility: a willingness to intervene, shape and direct.
This seems a trivial point, and both authors are quick to concede it. Sandel writes: “To appreciate children as gifts or blessings is not to be passive in the face of illness or disease” (Sandel 2007: 46). And McDougall writes: “acceptingness [does] not involve accepting each and every feature of one’s child” (McDougall 2007: 188). So far so good. But here a question inevitably arises: if there is a limit to acceptingness in the context of parenthood, on what grounds is that limit to be drawn? Why is hearing, but not, say, severe illness, the kind of thing that a good parent should accept in her child? For Sandel the analogous questions arise with respect to humility. Both authors address this problem, but neither of them addresses it satisfactorily.

Sandel attempts to delimit parental humility by positing an opposite impulse. Having switched to discussing in terms of love, and drawing on May again, he argues that “parental love has two aspects: accepting love and transforming love. Accepting love affirms the being of the child, whereas transforming love seeks the wellbeing of the child. Each side of parental love corrects the excesses of the other”. (Sandel 2007: 49-50)\(^9\) Again, this certainly captures something important about good parenthood, but it simply begs the question of the grounds for the limitation of humility (or accepting love). For even granted that accepting love has to be balanced by transforming love, how is the balance to be struck? When is the one to take precedence over the other, and why?

McDougall addresses the problem in a different way, by appealing to one of the neo-Aristotelian premises of her argument. Given that the purpose of acceptingness - indeed, the purpose of the parental virtues in general - is to conduce to the flourishing of the child, she suggests that the limit to acceptingness is also to be drawn with reference to the child’s flourishing. “Characteristics that are compatible with a child living a flourishing life would be perceived acceptingly by a virtuous parent, while those that are incompatible with a child’s flourishing would fall outside the scope of this parental virtue” (McDougall 2007: 188).

\(^9\) Here Sandel refers to another session of the President’s Council of Bioethics (2002a). Others too have pointed towards these two seemingly countervailing tendencies in good parenthood. Erik Prens describes a tension between two fundamental parental obligations: “to let their children be, to let them unfold according to their own desires and capacities” and “to shape children, to promote their flourishing and psychosocial functioning” (Prens 2006: xiv). Similarly, William Ruddick (1998) describes how the concept of the parent as child-carer may sometimes come into conflict with the concept of the parent as child-raiser.
This may seem an attractive move, but it is in fact unavailable from within McDougall’s own neo-Aristotelian, virtue ethical framework. This is why. That framework is distinguished from its two major rival approaches to normative ethics – deontology and consequentialism – by how it relates to each other three concepts: right action, the good, and virtue (Watson 1990). Deontology regards the concept of right action as foundational, while for consequentialists the concept of the right is derived from that of the good. Both regard the concept of virtue as derived from either the right or the good. Hence, John Rawls (a deontologist) defines the virtues as “the strong and normally effective desires to act on the basic principles of right” (Rawls 1971: 436). A consequentialist could follow Rawls in subordinating the concept of virtue to the concept of right action, but would in turn subordinate the right to the good.\footnote{There is also another way for consequentialists to accommodate the concept of virtue. Julia Driver conceives of the virtues as “character traits that systematically produce more actual good than not” (Driver 2001: 68). As this quote makes clear, on her account the connection between the virtues and good states of affairs is made directly, not via the concept of right action.} The virtue ethicist, by contrast, holds that the concept of virtue has “explanatory primacy” (Watson 1990, cf. McDowell 1979: 331). She would not say that the agent that tells the truth in certain circumstances is virtuous – or, more specifically, honest – because telling the truth is the right thing to do. She would say, conversely, that the agent acts rightly because telling the truth is the honest thing to do, what the honest (virtuous) person would do in the circumstances. And, on a neo-Aristotelian line of reasoning, she would add that honesty is a virtue because it is important to human flourishing.

We have seen that McDougall, following Hursthouse (1999), subscribes to this basic structure: the concept of right action is derived from a more basic and independent concept of virtue or character, and that concept is in turn derived from the concept of the good (i.e. the flourishing of the child). So both for the consequentialist and for the neo-Aristotelian virtue ethicist, the notion of the good is, in a sense, at the ground floor of the theoretical edifice.\footnote{One should be careful when putting matters in such very simplified and general terms. The content of the concept of the good at play in consequentialism (at least in its conventional utilitarian forms) is very different from the content of that concept at play in virtue ethics. In particular, neo-Aristotelian virtue ethics does not seem to involve a conception of good states of affairs (see Foot 2001: 45-51 and Watson 1990 for discussions of this point). Also, the relation between virtue and the good is much closer from a virtue ethical than from a consequen-}
ference is that for the consequentialist, right action is connected directly to the good, while for the virtue ethicist the connection is made *via the concept of virtue.*\(^{94}\) But McDougall’s argument as to how the scope of acceptingness is to be delimited circumvents this necessary intermediate step. The criterion of right parental choice is directly derived from the concept of the child’s flourishing, and the concept of parental virtue is thus rendered superfluous. Her argument seems to boil down to the claim that a parent ought to choose in such ways that the flourishing of her child is promoted, or at least not compromised. Does this not simply bring us back to consequentialism, and to the problems that consequentialist approaches to reproductive choices face (see Chapter 3)?\(^{95}\)

Neither Sandel nor McDougall, then, appears to succeed in demarcating the scope of humility or acceptingness vis-à-vis other virtues. And consequently, they fail to explain why humility or acceptingness, rather than some countervailing, but also sometimes appropriate, parental response should take precedence in the particular cases that they are concerned with. This looks like bad news for any attempt to answer the central question of this chapter in terms of the virtues. For most other moral virtues, too, have a limited scope. Sometimes fearless behaviour in the face of danger counts as courage (a virtue), but sometimes it counts as carelessness (a vice). But how are we to tell the two apart? And how are we to judge when what is

\(^{94}\) This is why a virtue ethicist can argue that an instance of promise breaking, say, is condemnable even if the promisee is not harmed and there are no adverse consequences beyond the individual level (e.g. the erosion of the institution of promising). The reason why the act may be wrong is that it runs counter to trustworthiness, a disposition that is regarded as a virtue because of its importance for human flourishing. The reason cannot be of the kind available to consequentialists, i.e. that the *act itself* contributes negatively to human flourishing (as *ex hypotesi* it has no such effects). For a more elaborate discussion of promising roughly along these lines, see Foot (2001: 45-51).

\(^{95}\) This is of course particularly problematic for McDougall in the light of her ambition to put forward an *alternative* to consequentialist (or more specifically harm-based) approaches – an alternative that avoids the difficulties that such approaches face (McDougall 2007: 184, cf. McDougall 2005: 601-3).
called for is not so much the exercise of courage as of some in the particular situation seemingly conflicting virtue, e.g. compassion.\textsuperscript{96}

The implication for the discussion of this chapter’s central question is the following. As long as we lack an account of how the virtues are to be delimited and balanced against each other, we also seem to lack a good way to tell whether a particular action – or, as is the case here, a particular attitude – falls within or outside the scope of a particular virtue. Simply establishing that some disposition is a (parental) virtue is of little help for determining what that virtue requires in terms of particular actions and attitudes. Any attempt to connect the one-sidedness described in Chapter 5 to a lack of a particular (parental) virtue then has something arbitrary about it. How are we to judge that the attitude runs counter to humility or acceptingness (or any other parental virtue) without any plausible account of how much these virtues require? Or, in terms of parental love, how are we to judge whether the attitude is to be condemned as a sign of lacking accepting love, or, to the contrary, celebrated as an expression of transforming love?

\textit{The Recourse to Phronesis}

These difficulties need not, however, tell against an Aristotelian approach to the question about the moral significance of one-sidedness. My disagreement with McDougall concerns the usefulness of an argument along the particular lines that she suggests for answering that question. But I think that the broadly Aristotelian orientation of that argument and its focus on the parent-child relationship are worth holding on to in the search for a better answer.

Aristotle clearly had a way to avoid the difficulties just described. Or, perhaps more correctly, on his conception of the virtues they do not arise in the first place, because that conception admits neither excessive virtue nor conflict between different virtues. This is evident in two cornerstones of Aristotelian ethics: the doctrine of the mean and the doctrine of the unity of the virtues. On the first of these doctrines, possessing a virtue is a matter of being able to find the middle way between two corresponding vices. Generosity, for instance, is the intermediate between prodigality and meanness. To be generous, Aristotle argues, is not just to be disposed to give money away, “but to do

\textsuperscript{96} This “conflict problem” is a persistent difficulty in virtue ethics; for a discussion, see Hursthouse (1999: ch. 2). As Hursthouse points out, deontologists face the analogous problem of conflicting duties (ibid.: 43).
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this to the right person, to the right extent, at the right time, with the right motive, and in the right way” (NE 1109a27-9). Hence, there is no room for excessive or otherwise inappropriate exercise of virtue; appropriateness is an intrinsic feature of virtue itself.

On the doctrine of the unity of the virtues, one cannot, crudely put, possess one virtue without to some extent possessing them all. Virtues are, then, not to be thought of as discrete, isolable dispositions. Rather, when we believe that someone has acted virtuously, “we believe that we have thereby identified them as being a certain sort of person all round” (Hursthouse 1999: 156). For instance, the truly generous person can be relied upon not to be led by her generosity to act unjustly, because she is at the same time also just.97

In Aristotle’s elaboration of both of these doctrines, the notion of phronesis, or practical wisdom (I shall use the terms interchangeably), plays a crucial role. With respect to finding the mean between vicious extremes, he writes that it is to be “determined by a rational principle, and by that principle by which the man of practical wisdom would determine it” (NE 1107a1-3). And with respect to the unity of the virtues he claims that “with the presence of the one quality, practical wisdom, will be given all the virtues” (NE 1145a2-3). The unity of the moral virtues and their intrinsic appropriateness – their contrast with excess and deficiency – are, then, explained by their implying phronesis.98 Practical wisdom is what makes them unified and self-regulating.

Now it is important to note that phronesis is not just another virtue alongside justice, courage, temperance and so on; rather it is the knowledge or ability that allows one to exercise these virtues in particular situations. In Aristotle’s classification, it is an intellectual rather than a moral virtue. In the much-discussed Book VI of the Nicomachean Ethics, he carefully distinguishes phronesis from the other

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97 The correct interpretation of the doctrine of the unity of the virtues, as well as its soundness, is the subject of much debate in contemporary virtue ethics. Some present-day Aristotelians defend some version of it (e.g. Hursthouse 1999: 153-7), while others reject it (e.g. MacIntyre 1984: 163-4, 196).

98 It may be argued that describing the relation between phronesis and moral virtue as one of implication requires further specification and justification. As for justification, suffice it to say that ‘imply’ is precisely the term that Aristotle, in W.D. Ross’s translation, uses (NE 1144b20). Specifying the relation more carefully would take a great deal of interpretation and argument; that would be beyond the scope of my discussion here. One credible suggestion, which will be of importance in a later part of my argument, is that both moral virtue and phronesis are encompassed by the phenomenon of experience (Dunne 1993).
intellectual virtues, in particular from *techne* (skill in arts and crafts) and *episteme* (scientific knowledge). These three distinct forms of knowledge correspond to three quite distinct fields of human activity, and have quite distinct subject matters. *Episteme* is the theoretical knowledge of the philosopher or scientist. Its object is the necessary and eternal, for instance mathematical entities, and it can be demonstrated by syllogism and induction. *Techne* is the knowledge of the artist or craftsman. It is concerned with making or manufacture (*poiesis*) – that is “neither with things that are, or come into being, by necessity, nor with things that do so in accordance with nature”, but with “how something may come into being which is capable of either being or not being, and whose origin is in the maker” (NE 1140a10-14). To possess *techne* is to be able to bring about a preconceived product and to account for the production process.

*Phronesis* is by contrast concerned with action (*praxis*). Aristotle characterises it as “a reasoned and true state of capacity to act with regard to human goods” (NE 1140b20-1). It is distinguished, firstly, from *episteme* by not being about the eternal and necessary, but rather about contingent human affairs. Practical wisdom cannot be science, Aristotle argues, because it necessarily involves deliberation, and “no one deliberates about things that are invariable” (NE 1140a32-3). Secondly, *phronesis* is distinguished from *techne* by not aiming at an external end: “while making has an end other than itself, action cannot; for good action itself is its end” (NE 1140b6-7). Hence, while *techne* is restricted to finding the appropriate means to an end already settled, *phronesis* involves deliberation about both means and ends simultaneously. The categories of means and ends are not as neatly separated as in technical reasoning, but rather intimately related.99

The embeddedness of *phronesis* in human practical life is of crucial importance. The Aristotelian moral agent is emphatically *not* the brilliant student who first successfully digests sophisticated philosophical theories and then relatively effortlessly derives from them correct judgments on concrete cases, from the outside, so to speak. Rather, she is already in the midst of a messy situation that requires her to act. She cannot hope to somehow place herself outside of the uncertainties and limitations (her own weaknesses included) that pertain to all concrete action, but has to manage them as best she can.

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And in managing them, she lacks any pre-given problem-solving algorithm; there is no reliable authority other than past experience. *Phronesis* is fundamentally an *experiential* form of knowledge.\textsuperscript{100}

It is precisely this practical nature of *phronesis* that Hans-Georg Gadamer (1981, 1989) finds so relevant to his own philosophical hermeneutics. Like the knowledge of the *phronimos*, the interpreter’s understanding of the text is inseparable from its application to the concrete situation. Unlike *techne*, it is not the kind of knowledge that can be abstracted from its practical context, universalised, straightforwardly applied to new cases, and taught to others in the form of an objective method.

In what follows I shall argue that the concept of practical wisdom helps to shed light on the question why we should find the one-sidedness identified in the last chapter troubling. The argument will require a somewhat more detailed specification of that concept. The point for now is that dealing with the question in terms of *phronesis* does not suffer from the arbitrariness that attempts to answer it with reference to a particular moral virtue seem prone to. This is because practical wisdom is not a particular moral virtue. Unlike humility or acceptingness it does not have a limited scope; rather, it is *always* required for acting well.

**Practical Wisdom, the Good Life and the Concept of Practice**

*The Moral Virtues and the Human Good: The Theory of Natural Normativity*

In order to arrive at a richer description of *phronesis* – one that at once brings out its relation to *praxis* and gives us new resources to ap-

\textsuperscript{100} Hence Aristotle’s repeated stress of the importance of habituation in the moral life (in particular in NE 2) and hence his claim that “while young men become geometrical and mathematicians and wise in matters like these, it is thought that a young man of practical wisdom cannot be found” because “such wisdom is concerned not only with universals but with particulars, which become familiar through experience, but a young man has no experience” (NE 1142a12-15). The experiential nature of practical wisdom has been particularly emphasised by Gadamer (1981, 1989) and Dunne (1993). It should be noted, however, that Gadamer’s (1989: 341-55) account of experience, on which Dunne too draws, explicitly goes far beyond Aristotle’s understanding of that concept.
proach the central problem of this chapter – we might begin by returning to one of the premises of McDougall’s argument. We saw that she regards the moral virtues as character traits conducive to human flourishing, given facts about human life. This is an unmistakably Aristotelian claim. Rather than appealing directly to Aristotle, however, McDougall draws on a neo-Aristotelian rendering of the claim. For Aristotle, the thought that the virtues are necessary for human flourishing, given our human nature, was part of his grand metaphysical scheme, in particular his teleological biology. The neo-Aristotelian grounding of the virtues in a characteristically good human life, however, proceeds instead from a recognisably contemporary starting point: an analysis of value judgments.

Here is a rough outline of the neo-Aristotelian argument. We can and do evaluate characteristics of plants and animals independently of our own desires, needs and interests. We may for instance say that an oak tree has good roots (Foot’s primary example), regardless of the role that the tree might play in human affairs. (Foot 2001: 26-7) Evaluations of this kind are teleological judgments. We say that an oak tree has good roots because of the important function that roots like the ones we describe have in the characteristic life of a tree of that species (e.g. because they protect it from being overturned by strong winds that easily seize such a large tree). Evaluative propositions about a plant or an animal are true or false in virtue of facts about the life form of the species in question. What an individual species member ought to be like is determined by such facts; that is, norms can be derived from an account of the nature of the species. (Ibid.: 30-5, cf. Hursthouse 1999: 197-205)

The strategy then is to extend this conceptual structure of “natural normativity” to evaluations of human beings. This may not strike us as very surprising at first. The judgment that a human being has a good heart seems analogous to the judgment that a tree has good roots, if by ‘a good heart’ we mean ‘a biologically well-functioning

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101 Here I follow in particular Foot’s book Natural Goodness (2001), but the argument in that book relies on much of her earlier work (the part of the argument that I present is prefigured, in particular, in “Rationality and Virtue” [2002d], which was first published in 1994). Her argument is explicitly a critique of non-cognitivism, a theme in her thinking that goes far back indeed, at least to “Moral Arguments” (2002a), first published in 1958. Hursthouse’s (1999: ch. 9-10) argument for naturalism draws heavily on Foot’s work, but predates Natural Goodness. The latter book can thus be regarded as the most definite statement of neo-Aristotelian naturalism so far, which is why I make it central to my presentation.
heart’. The critical step is however from this kind of evaluation to moral evaluation. If by our judgment that someone has a good heart we mean that she is a kind, generous and benevolent person, many would say that we make a judgment of an entirely different kind. This is precisely what neo-Aristotelian naturalism denies. The claim that kindness is a virtue – that it is a good character trait – is structurally identical to the claim that the deep, sturdy roots of an oak tree are good roots. Both claims are made true by facts about the life form of human beings and oak trees respectively.102 (Foot 2001: 39, 45-7, cf. Hursthouse 1999: 205-11)

Foot and Hursthouse, then, follow Aristotle’s suggestion that we need the virtues in order to live good human lives (cf. Geach 1977). Much human good hangs on the virtues, as Foot (2001) tends to put it. And we need the virtues because of facts about human life, just like oak trees need deep, sturdy roots because of facts about the life of an oak tree. Now I believe that this way of putting things, elegant as it no doubt is, is at risk of leading us to overlook important differences between human beings and oak trees, regarding both their respective good and the facts that one has to take into consideration in order to determine what characteristics conduce to that good.

In order to bring out this point more clearly, let us consider one of Foot’s lines of reasoning in “Virtues and Vices” (2002c). Elaborating on Aristotle’s claim that the virtues are concerned with what we find difficult, she argues that they are “corrective, each one standing at a point at which there is some temptation to be resisted or deficiency of motivation to be made good” (ibid.: 8). And she goes on to suggest that the virtues are corrective with respect to human nature. Their status as virtues depends on characteristic human weaknesses: “[O]ne may say that it is only because fear and the desire for pleasure often operate as temptations that courage and temperance exist as virtues at all.

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102 This brings out a central feature of the theory of natural normativity. It is radically opposed to non-cognitivism, the long-hegemonic meta-ethical view that moral judgments are essentially different from judgments about facts, either in that they express something else than beliefs, namely feelings or attitudes, or in that they are “speech acts”, such as endorsement or prescription. (One influential exponent of the non-cognitivist position, and one with whom Foot explicitly engages is R.M. Hare; see for instance Hare 1981). It is against this background that one should understand Foot’s claim that words like ‘good’ do not suddenly (and mysteriously; Hursthouse 1999: 195) take on a radically different meaning when applied to human character traits (Foot 2001: 39). Non-cognitive mental states have no role to play in evaluative judgments of plants and animals, so why should we expect them to be all-important in moral judgments?
[...] If human nature had been different there would have been no need of a corrective disposition in either place” (Ibid: 9).

What Foot says in this passage gives us a sense of the limits of the oak tree analogy in her later work. The thought that nature stands in need of correction would not occur in the same way, I think, when we are dealing with plants and non-human animals as when we are dealing with human beings. Why? We can plausibly think, as Foot does, of the way an individual animal or plant ought to be as laid down in the characteristic life of the species to which it belongs, and of such a life as fully determinable as a matter of biological fact.103 Animals should find nourishment and shelter and reproduce in well-defined, characteristic ways, and this is what they do, for the most part, and cannot help doing. From this perspective, the idea that they ought somehow to be better than what is natural for their species does not make sense. Matters are different when it comes to human beings. There is no one – especially not biological – account of a typical human life that is also a full and plausible account of a good human life. For human beings, the thought that they ought to be better than they happen to be by nature does make sense. (Hursthouse 1999: 218-24, cf. Foot 2001: 42-4)

This has the following upshot for the analogy between the virtues in human beings and good characteristics in plants and animals. Both may depend on facts about the life form in question. However, the judgment that a character trait is a virtue requires, in addition to facts about human beings, a conception of the human good. As regards evaluations about characteristics in plants and non-human animals, the corresponding conception of the good may well already be part and parcel of the biological description that captures the facts

103 I am simply assuming here the plausibility, when it comes to animals and plants, of Foot’s theory of value judgments, including the idea of the good life as a natural life. But his latter idea does not seem uncontentious. Animal ethicists have put forward a range of theories about the good life of animals, and only some of these theories involve a notion of naturalness. (For an overview and critical discussion of different theories of animal welfare, see Nordenfelt 2006). It should be noted, however, that Foot does not propose a normative theory of animal welfare, but a meta-ethical theory of the structure of value judgments that we in fact make (cf. Foot 2001: 116). I shall not discuss whether there is a genuine conflict between Foot’s theory and certain theories of animal welfare; nor is it necessary for my argument to adopt any particular view on animal ethics. My purpose here is merely to indicate the limits of thinking of the human good simply in terms of naturalness (a way of thinking of the good for animals and plants that has at least some plausibility).
about their forms of life. But human good and human nature (or facts about human life) are not assimilable to each other in this way. And the relevant facts about humans are also different from the relevant facts about plants and animals. Most importantly, they are not merely biological facts (although biological facts may certainly matter too; see Hursthouse 1999). At least some of them belong rather to the domain of philosophical anthropology.\(^{104}\)

**The Elusiveness of the Human Good**

Of what relevance is all this to my overall argument? First, it should be noted that the claim that we need the moral virtues in order to lead a characteristically good human life could as well be read as a claim about *phronesis*. This is because, as we have seen, practical wisdom is implicit in all the moral virtues. If living well as a human being requires possession and exercise of the moral virtues, then it *ipso facto* requires possession and exercise of practical wisdom. Suppose that we accept this Aristotelian idea. Does it help us to answer the question what is morally troubling about the non-responsiveness and one-sidedness towards the child-to-be described in Chapter 5? I shall suggest that it does, but not without considerable unpacking.

It is tempting to argue at this point that the *phronimos* is not disposed to act non-responsively and one-sidedly because such a disposition precludes some aspect of the good human life. But I think that would be too hasty. This is because such an argument would (for reasons mentioned above) have to draw on some conception of the human good, and such conceptions are both notoriously controversial and intractably abstract.

To say that conceptions of the human good are controversial is of course not to say that they are all mistaken or impossible to spell out systematically. But the historical and cultural variation on matters like these should at least make us cautious about too confident philosophical proclamations concerning the content of the good human life. It is telling that even some contemporary Aristotelians are, in the face of this variation, sceptical about grounding the virtues in some such conception (MacIntyre 1984: 162-3). The problem seems especially deep for a project like my own, because of its commitment to a...
coherentist model of ethical justification. Are we to expect an intuition that is assumed to be shared by many to be justified by an appeal to something as contested as a conception of the good for human beings qua human beings?

Further, all plausible suggestions as to the nature of the good human life are bound to be highly abstract. (This is related to the point just made, I think, insofar as any attempt to escape contestability is likely to prompt one to sketch the human good only in very general terms, with little specific – potentially contested – content.) This makes an argument to the effect that the practically wise person is not likely to tend towards non-responsiveness and one-sidedness problematic. What very general human good would be rendered unattainable by such a disposition? The question is not an easy one to answer at this level of abstraction. As the example of the business executives in Chapter 5 brought to our attention, in some areas of human affairs a non-responsive, one-sided stance seems innocent, perhaps even conducive to some good.

The Human Good and the Practical Context

There is a way around these difficulties, a way that is indeed indicated by Aristotle himself. Let us return to his claim that phronesis is concerned with action, that its purpose is acting well. Action is, as we have seen, distinguished from manufacture (poiesis) by not aiming at bringing about external products; good action is its own end. At the same time, however, we have seen that Aristotle describes the phronimos as the person who deliberates correctly about the good. And in Book 1 of the Nicomachean Ethics, which is devoted precisely to the human good (understood as eudaimonia – “happiness” in Ross’s translation), he claims that “[h]appiness […] is the end of action” (NE 1097b21-2).

Here we seem faced with a question, to which among others Paul Ricoeur has called our attention. How, he asks, “can one maintain at the same time that each praxis has an ‘end in itself’ and that all action tends towards an ‘ultimate end’?” (Ricoeur 1994: 178). And how, we may add, can the role of phronesis – the form of knowledge that guides action towards its end – be to ascertain both good action and eudaimonia?

Now these questions have a certain un-Aristotelian flavour to them. They presuppose a neat separation between two things that for Aristotle are so intimately related as to form parts of the same phe-
nomenon: good action and the good human life. On his view, the good human life is a life lived in accordance with the virtues, a life of virtuous action - of action under the rule of practical wisdom. So practical wisdom is required for acting well and for living well; there is no conflict between the two. In fact, a stronger claim is warranted. The point is not that we need phronesis to act well and, somehow in addition to this, in order to lead good lives. Nor is it that the good life is an end to which action under the guidance of phronesis is merely instrumental, in the sense that, say, putting a coin into a machine is instrumental to obtaining a cup of coffee. The point is rather that acting well, in accordance with virtue, is constitutive of the good life; it is in one’s virtuous actions that one realises such a life.\(^5\)

This is why, I think, when Aristotle talks about phronesis, he slides so effortlessly back and forth, connecting it sometimes to acting well, sometimes to living a good life (see, in particular, NE 6.5). And let us, in connection to this, not forget his characterisation of eudaimonia as “good life and good action” (NE 1198b21-2).

Let us look more closely into this rootedness of the good life in praxis. It entails that doing well as a human being is always at the same time doing well within the particular practical context that one finds oneself. This is because, as Aristotle puts it, “practice is concerned with particulars” (NE 1141b16). We always act in a particular situation, with particular limitations and opportunities, towards and in interaction with particular persons. It is here, on the level of concrete human affairs that the good life is lived, and it is here that we are called upon to exercise the virtues.

This thought has been highlighted and developed by, in particular, commentators in the hermeneutical tradition. Ricoeur (1994: 179) describes (in response to the problem that we saw him pose above) a hermeneutical circle, an interpretative movement back and forth, between aiming at the good life and aiming to do well in the particular practices that we find ourselves part of. And for Gadamer practical wisdom is all about application, about bringing into concreteness abstract and indeterminate conceptions of the virtues. These conceptions are only rendered determinate enough to offer practical guid-

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\(^{105}\) It should be pointed out that for Aristotle, the ultimate human good consists in contemplation of the necessary and invariable; it belongs to the realm of theoria rather than to praxis. But when he discusses the good life in relation to practical wisdom, he clearly has in mind the practical-political life of the citizens of the polis. How these seemingly very different conceptions of the good are to be reconciled is a vexing problem indeed (see Dunne 1993: 239-44 for a discussion).
ance by this concretisation in the particular situation. (Gadamer 1989: 310-18, cf. Dunne 1993: 310-13) What these authors stress is not only that the good life is always lived through virtuous conduct in particular situations, but also that it is only in this particular, concrete agency that the meaning of such a life is at all revealed to us.

This puts us in a position to move around the difficulties that attach to the attempt to attribute one-sidedness and non-responsiveness to a lack of practical wisdom by a direct appeal to some notion of the good for human beings qua human beings. The move consists in connecting *phronesis* instead to the notion of doing well within particular practical contexts. This is precisely what Alasdair MacIntyre (1984) suggests, albeit with respect to the moral virtues rather than *phronesis*. A virtue is, for MacIntyre, “an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods” (ibid.: 191). And a practice is:

any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended (MacIntyre 1984: 187).

There is a strong Aristotelian thread in MacIntyre’s conception of practice. In particular, his discussion of the distinction between internal and external goods brings us back to two central Aristotelian theses already mentioned: that *praxis* carries its end within itself, and that the good life is lived in successful *praxis*.

106 Consider portrait painting, one of MacIntyre’s examples of a practice (MacIntyre 1984: 189-90). A skilled painter can aspire to achieve a variety of goods,

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106 The following explication of the notion of an internal good, and its contrast to external goods, goes well beyond MacIntyre’s own insofar as he does not himself explicitly discuss it in terms of the means-end relation or the good life. The purpose of calling attention to these two features is to bring out more clearly the continuity between MacIntyre’s conception of practice and internal goods and the two Aristotelian theses discussed earlier.
such as money and fame, which are also obtainable by other means, by engaging in other practices or without engaging in any practice at all. These are external goods; they are fully distinguishable from the act of painting, and their relation to that activity is purely contingent. These goods are contrasted with the goods internal to painting: the excellence of the performance of painting and the product, and the way of life of the painter. These goods are obtainable only by engaging in the particular practice in question. Moreover (and this seems more important to me), their achievement reveals another means-end picture than that which characterises the achievement of external goods. Excellence in painting is the end of the painter’s efforts, but it is an end not fully distinguishable from its means; excellence is precisely excellence in the exercise of the means, the act of painting. And the good of a certain way of life, the life of a painter, also attaches as much to that means as to the end, if not more. Compare this with the contingent relation between means and external goods.

Notice also how MacIntyre expounds another feature of practices – a feature that remains implicit in my above description of Aristotelian praxis – namely that they are, in a variety of ways, intersubjective. First, engaging in a practice involves recognising the authority of shared (and in MacIntyre’s view historically evolved) standards of excellence by which one’s individual performance is measured. Second, the goods internal to a practice are enjoyed by all who engage in that practice, unlike external goods, which are the property of individuals and objects of competition. Third, the shared standards, purposes and enjoyment of goods that constitute practices are only possible insofar as the participants conceive of and deal with each other in certain ways: justly, honestly and so on. That is, the integrity

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107 MacIntyre (1984: 188) claims that there are always different ways to achieve external goods, in contrast to internal ones, but I am not sure that is a necessary condition of external goods. We can imagine circumstances in which there is only one very particular way to achieve an external good, like political power. Consider for instance the Soviet Union, in which it arguably was the case that the only road to power went through the Party. In such circumstances, is political power no longer to be regarded as an external good, but rather as internal to what we might call the practice of party membership? I think not, because the means to power arguably remains contingently related to its end.

108 For instance, the enjoyment of the fruit of the artist’s excellence, the work of art, is not restricted to the artist herself, nor to her patron or to some other individual who may come to own the work. Rather, it is potentially shared by all art lovers.
of practices depends on relationships sustained by, and defined in terms of, the virtues. (MacIntyre 1984: 190-3, cf. Ricoeur 1994: 176)

**Conclusion and a Look ahead: Practical Wisdom at the Intersection between Medicine and Parenting**

I shall appropriate the above outlined conception of the virtues as required for doing well within practices for the purpose of responding to the question what reason there might be to be concerned about what in the last chapter I called a one-sided, non-responsive attitude. Let me make two remarks by way of recapitulation and clarification. First, for reasons given in the first section of this chapter, the virtue that I will be concerned with is practical wisdom, rather than (like McDougall) some particular parental virtue, or (like Foot, Hursthouse and MacIntyre) the moral virtues on the standard list.

Second, notice that while I have arrived at the idea that practical wisdom is required for doing well within practices by way of a critical analysis of Foot’s and Hursthouse’s neo-Aristotelianism, and of an argument about reproductive technologies that proceeds from that theory, I have not moved far away from their position, but rather adopted a qualified or in some respects refined version of it. On both approaches, the virtues are required for the successful pursuit of the good life, and they are so required because of certain “facts”. But on the approach that I take, the good life is not thought of tout court – as the good for human beings as such – but always as lived in successful praxis, in the pursuit of the particular ends of particular practices. (As should be clear from what has been said already the difference here is best thought of as a difference in emphasis). And the “facts” are different too. For Foot and Hursthouse they belong to a partly biological, partly philosophical-anthropological account of human nature, including an account of characteristically human difficulties and weaknesses. On my approach they belong to an account of the nature of practices, including an account of the difficulties that are characteristically encountered in those practices and the weaknesses that they make us particularly prone to succumb to.

It is a premise of my argument in the following that it takes somewhat different things to be practically wise in different practices. By this I do not mean that each and every practice has its own unique kind of practical wisdom (that would be similar to McDougall’s suggestion that “acceptingness” is a specifically parental virtue). What I
mean is that the challenges posed to the *phronimos* vary to some extent between practices, as do the appropriate responses to these challenges, important similarities notwithstanding. I believe that this is supported by Aristotle’s claim that practical wisdom is concerned with particulars and his insistence, throughout the *Nicomachean Ethics*, that the only way to achieve such wisdom is by concrete lived experience. Such experience, I assume, is gradually developed precisely by engaging in particular practices; there is no such thing as practical experience *simpliciter*. Practical wisdom will, then, even when fully unfolded, bear the marks of this practice-specific development.

The upshot of this is that if one wants to specify what practical wisdom requires of those engaged in a specific practice, one needs an account of that practice. I shall argue that enhancement uses of reproductive technologies, because of the one-sidedness and non-responsiveness described earlier, are difficult to reconcile with what it takes to act wisely in the practical context where such technologies are used. Hence, I need to describe that context in some detail. But what practice do I have in mind? The choices that reproductive technologies make possible in fact seem to be situated at the intersection between two practices: medicine and parenting. They are informed by medical knowledge and made in a medical setting, with the assistance of medical personnel and medical technologies. But they are still ultimately *parental* choices; the would-be parents make the final decisions (within legal and certain other boundaries). Medicine is crucial to these choices, but medicine is enveloped by the more comprehensive parental project of having children. I now turn to a closer look at these two practices.
CHAPTER 7

Practical Wisdom in Medicine and Parenting

Introduction

In this chapter, I will continue the broadly Aristotelian approach to the ethics of reproductive technologies commenced in the previous chapter. There I described the concept of phronesis in some detail and brought out its intimate connection to the concept of praxis. I suggested that thinking about reproductive choices in terms of phronesis requires taking into consideration the practices in which such choices take place, in particular their ends and the difficulties that are encountered in the pursuit of those ends. In this chapter I explore these practices, beginning with medicine before discussing parenting. The order is no coincidence: there is already a strong Aristotelian current in contemporary philosophy of medicine on which I shall be able to draw for my analysis of the former practice. This discussion of medicine and medical phronesis will then turn out to be useful also for my analysis of parenting, the overarching practical context in which reproductive choices are made. As I shall try to show, the two practices have important similarities with respect to their ends and difficulties – similarities that are also reflected in what it takes to act wisely within them. This comparative analysis will allow me to return with more clarity to the question why we should be concerned about the one-sidedness described in Chapter 5.

Medicine as Praxis

What Is Medicine?

There is a question that has to be answered prior to any attempt to characterise the practice of medicine, namely: is the label praxis at all appropriate for that pursuit? Several contemporary philosophers
have either explicitly argued that medicine is a practice in the Aristotelian sense or regarded it as an activity requiring practical wisdom (MacIntyre 1984, Pellegrino & Thomasma 1981, 1993, Gadamer 1996, Svenaeus 2003). However, there are seemingly two obstacles to this view. First, the term 'medicine', as we use it today, is not unambiguous (Nordenfelt 1996) and appears to encompass several rather different fields of activity, which arguably have different goals and embody different forms of reason (Nordin 1996). Not all of these fields of activity and forms of reason are plausibly thought of in terms of praxis and phronesis. The question that this raises is whether there is at all an irreducibly practical-phronetic dimension that can be regarded as essential to the medical enterprise. Second, when Aristotle himself mentions medicine, it is usually in connection to techne; indeed, medicine is one of his recurrent examples of that kind of knowledge.\(^{109}\)

As to the first difficulty, it is certainly the case that contemporary medicine comprises activities that are more plausibly classified as theoria and poiesis - on the one hand basic medical science, and on the other the development of drugs and other medical technologies, come to mind here - than as praxis. However, there is one important medical activity, which is arguably constitutive of medicine as we know it, that the former two categories fail to capture, namely clinical practice.

Several philosophers, particularly within the hermeneutical tradition, have convincingly argued that this activity is irreducibly practical-phronetic. These authors do not deny that scientific-technological knowledge on the part of doctors and members of the other clinical professions is important, even indispensable. Rather, they emphasise that such expertise is not by itself sufficient in the encounter with the concrete, individual patient. Before it can be employed for the sake of effective diagnosis or intervention, a shared understanding between practitioner and patient concerning the latter's predicament has to be established, and shared understanding has to accompany all stages of the clinical process. Making use of medical science and technology in the clinical setting, then, always requires - and is

\(^{109}\) Medicine has been analysed in terms of techne also in contemporary philosophy of medicine, for instance by Bjørn Hofmann. The concept of techne that he discusses is, however, “pre-Aristotelian” (Hofmann 2003: 404), and appears to include some of what Aristotle conceptualises as phronesis. But Hofmann contrasts his contribution with phronesis-based approaches, which, he argues, do not satisfactorily address the question of the role of technology in medicine (ibid.).
7. Practical Wisdom in Medicine and Parenting

indeed *enveloped* by (Svenaeus 2003: 421) – a form of knowledge that is neither scientific nor technical, but rather *interpretative*. Here we see precisely the concern with the particular that characterises practical wisdom. Although the physician may successfully draw on her experience from past patients, such experience is never available to her as a scientific theory or objective method. Understanding has to be established anew for each new patient.

It follows that medicine – insofar as clinical practice, constituted by an interpretative meeting between doctor and patient is an indispensable part of it – indeed needs to be understood as a *praxis*. Note also that it is within the practical, clinical setting that the uses of reproductive technologies under discussion here take place. Such technologies may certainly sometimes be inscribed in primarily scientific and/or technical pursuits that form parts of the medical enterprise. Think, for instance, of the use of human embryonic stem cells, harvested from leftover IVF embryos, for medical research aimed at the development of therapies. So not *all* possible uses of the technologies in a medical context are appropriately thought of in terms of *praxis* and *phronesis*. But in the cases that I have in mind, these concepts do apply, because here medicine is faced with the task of helping concrete individuals with concrete aspirations and concerns with respect to reproduction and illness. The uses of reproductive technologies that the cases illustrate belong within the interpretative, practical-phronetic realm of clinical practice.

But what are we to make of Aristotle’s conception of medical knowledge as *techne*? Does that not, after all, decisively tell against characterising clinical medicine as *praxis* requiring practical wisdom? It need not, I think, because the relationship between *techne* and *phronesis* does not have to be thought of in terms of a stark opposition.

Joseph Dunne (1993) argues that what appears to be a tension between *phronesis* and *techne* as different forms of practical knowledge – the one more “experiential”, the other more “theoretical” – is in fact present also within Aristotle’s concept of *techne*. The philosopher’s “official” notion of *techne*, as we have seen, denotes knowledge of how to bring about a preconceived product. It has a decisively theoretical tendency in that it involves the ability to give a rational ac-

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110 A number of authors have put forward some version of the argument outlined here, some but not all with explicit reference to Aristotle’s practical philosophy. For different articulations of the argument, see Toombs (1992: ch. 4), Gadamer (1996: 126-30), and Svenaeus (2001: 124-30 and 2003). For a further example of the view that medicine is a hermeneutic activity see Nerheim (1996).
count of the production process, in the sense of tracing it back to its causes. This is why *techne* can be abstracted from particular cases, formalised in general rules, and taught to others. Dunne (ibid.: 253-61) notes that, while this seems to accurately capture what goes on in activities that deal with fabrication, for instance house building and cobbling, many of Aristotle’s examples of *techne* do not fit the fabrication paradigm very well. These are the “*technai* of the *kairos*”: *technai* that are particularly at the mercy of chance. Prime examples are navigation and, importantly, medicine. Here the *technitai* (the possessor of *techne*) can expect only limited aid from the systematised theories and methods normally associated with *techne*. He works with a capricious and recalcitrant material that does not allow anything near that kind of control a master carpenter, say, exercises over the wood he works with. Hence:

> Success is to be achieved [...] not so much by keeping one’s gaze fixed on the preconceived form which one will impose on the material, as by a flexible kind of responsiveness to the dynamism of the material itself. It is sensitivity or attunement rather than mastery or domination that one strives for. (Dunne 1984: 256)

What Dunne calls attention to here is how something very much like *phronesis* is at work even within certain *technai*. He goes further than that: his impressive study culminates in a critique of the official Aristotelian concept of *techne* and the mapping out of an alternative (however still Aristotelian) “*phronetic techne*” (Dunne 1984: ch. 10). Whether or not this is ultimately convincing with respect to *techne* as such is beyond my argument here. The point for the present discussion is that an analysis of medical knowledge in terms of *techne* does not mean that there is no room for something like a medical *phronesis*.

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111 These aspects of *techne* are more systematically spelled out in the opening chapter of the *Metaphysics* than in the passages of the *Ethics* that have been considered so far. There Aristotle distinguishes between *techne* in the full sense, which involves knowledge of causes, and the mere practical experience that makes manual workers succeed in what they do. He states: “the master-workers in each craft are more honourable and know in a truer sense and are wiser than the manual workers, because they know the causes of the things that are done” (*Meta* 981a31-981b2). And he goes on: “it is a sign of the man who knows and of the man who does not know, that the former can teach, and therefore we think art [*techne*] more truly knowledge than experience is; for artists can teach, and men of mere experience cannot” (*Meta* 981b7-9).
Insofar as medical knowledge is appropriately thought of as *techne* at all, it is inescapably a “*techne of the kairos*”. Medical practice, then, is an activity that requires guidance from a context sensitive, experiential practical wisdom: it may share important features with paradigmatically productive enterprises, but is at the same time also a *praxis.*¹¹²

*Health as the Goal of Medicine*

The defence of the idea that medicine can be thought of as a practice has already brought us some way towards a characterisation of that practice. Now recall that, from an Aristotelian perspective, practices are constituted by their ends. A suitable next step of the account of medicine is therefore to consider the end of that practice. I shall, following what seems to be the convention in Aristotelian-hermeneutically oriented philosophy of medicine, assume this to be the health of the individual patient (Pellegrino & Thomasma 1981, 1993, Gadamer 1996, Svenaeus 2001, 2003).

Note how well the thought that health is the goal of medical practice at first appears to fit with an analysis along the lines of *techne.* As we have seen, for Aristotle the difference between *techne* and *praxis* is that the former brings about an external end, while the latter carries its end within itself. Is health not an end precisely in the technical sense, something caused by, and eventually disencumbered from, the activities of the doctor, in a manner much like that in which a baker produces a loaf of bread or a cobbler a pair of shoes? Not quite. Gadamer points out the oddity in thinking of health and what goes on in the doctor-patient encounter in such terms:

> Doctors can never completely entertain the illusion that health is something they simply ‘make’ or which they can fully control. They know that it is not themselves or their

¹¹² From this perspective, Pellegrino’s and Thomasma’s (1981: 144-9) suggestion that medicine is a “mixed *techne*”, encompassing science, art and practical wisdom, becomes less messy than it may appear at first glance. This is because the three forms of knowledge need not be thought of as in any way mutually exclusive. We have seen how *techne* may interconnect with, on the one hand, *episteme* and, on the other, *phronesis.* Once this is recognised, it should not be surprising either that many of the practices on MacIntyre’s (1984: 187-8) list – farming for instance – are strikingly productive activities (activities ruled by *techne*), while others – notably the sciences – are primarily theoretical (thereby involving *episteme*).
abilities but rather nature which they help to victory. [...] Medicine is the only science which, ultimately, does not make or produce anything. Rather, it is one which must participate in the wonderful capacity of life to renew itself, to set itself aright. The real task which confronts the doctor is that of assisting in this process of restoration or recovery. (Gadamer 1996: 89)

So it seems that medicine does not differ from the productive technai merely by virtue of the “material” that it works with, the patient, but also by virtue of the end that it works towards: health. But what is health more precisely? That question has generated much debate in contemporary philosophy of medicine. There are, broadly speaking, two dominant and opposing views in that debate.  

On the first view, health and disease are regarded as scientific concepts, attributed to biological organisms. Cristopher Boorse, the most influential advocate of this view, has proposed and defended a theory of health that centres on the notion of normal functional ability. Such ability is the readiness of a structure at any level of organisation of the body to make its normal contribution to the organism’s goals, individual survival and reproduction, or their sub-goals. What is normal for an individual is to be determined statistically, with reference to the sex, species and age group to which the individual belongs. A disease is a state of impairment or limitation of normal functional ability, and health is negatively defined as the absence of disease. It follows that health and disease are value-free concepts and that the health status of an individual is always in principle objectively measurable. (Boorse 1977, 1997)

The second view is more heterogeneous. Some version of it has been elaborated and defended by a range of authors who represent some rather distinct philosophical perspectives. These authors are all unsatisfied with the purely scientific outlook that Boorse represents. Health is not, they argue, to be understood primarily as a property of human beings qua biological organisms. Rather, they regard health as something enjoyed by, and illness as something suffered by, persons – that is, human beings capable of action, thought and experience, selves with a lifeworld. Because theories of this kind locate health on

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113 Note, however, that while these two perspectives are conventionally regarded as opposites, some have attempted to combine them within the same theory (Brülde 2000).
the level of the whole person rather than on the level of parts of the biological body (cells, tissues, organs) they are sometimes described as holistic.

Some holistic approaches to health and illness centre on certain action theoretical concepts. William Fulford analyses illness, from which other medical concepts in turn are derived, in terms of “the experience of failure of ‘ordinary’ doing” (Fulford 1989: e.g. 123). On Lennart Nordenfelt’s theory, to which I shall devote more attention below, a person is healthy if and only if he has “the second-order ability, given standard circumstances, to realize all his vital goals” (Nordenfelt 1995: 148). Other, phenomenologically oriented, theorists characterise health and illness rather as different modes of being-in-the-world. On Gadamer’s characterisation, health is “the rhythm of life”: a silent, self-regulating balance that largely defies explicit thematisation but that nonetheless makes itself known in a roundabout way through the relative ease by which it allows us to go about the various activities of our everyday lives (Gadamer 1996: 112-6). Fredrik Svenaeus (2001) bases his Heideggerian theory of health and illness on the notions of attunement and unhomeliness. Being healthy and being ill are explicated as finding oneself in different kinds of attunement – of being at home and not being at home, respectively – which permeate one’s whole existence as an understanding and acting bodily self, situated in the world.

It is important to note that when we inquire into the nature of health in the context of a discussion such as my own, we do not face an unbiased choice between the biological and the holistic viewpoints. To say that medicine is a practice in the Aristotelian sense is already to say something substantial about its goal, namely that it is something good, something that matters much to us. This follows from the thought, described above, that living well as a human being is bound up with doing well in one’s practical life. A conception of health based on the notion of biological functioning thus seems ruled out beforehand, because unimpaired biological functioning is not, in and by itself, something that matters (or should matter) to us (cf. Kitcher 1996: 212-4). Indeed, Boorse (1997: 95-101) himself points out, in response to his critics, that he never intended his purely descriptive theory of health to play the normative role of guiding clinical practice. For that purpose separate normative criteria are needed in addition to that theory.

It seems, then, that when we think of health as the goal of medical practice, we have to think of it along holistic lines. In what follows, I
will highlight two important features of the holistic view: its committed-ness to the perspective of the individual patient and the connection that it makes between health and the good life. I shall argue that these two features have important implications for phronesis in medical practice.

Practical Wisdom in the Medical Context: Implications of the Holistic View

On a theory like Boorse’s we are all very much alike when it comes to health and disease, and we are indeed very much like other higher animals. This is because we are very much alike from a biological point of view; more specifically, we have the same goals – survival and reproduction – and we function in very similar ways, physiologically speaking, with respect to the realisation of these goals. Of course, normal physiological functioning varies along three dimensions: age, sex and species. But here variation comes to an end. That is to say, what constitutes reduced health (a reduction in normal functional ability) in a 40-year-old female of the species *homo sapiens* also necessarily constitutes reduced health in any other 40-year-old female of that species.114

From a holistic perspective this is not so. Health is characterised in terms that admit greater individual variability. This is perhaps most conspicuous in Nordenfelt’s theory, on which, as we have seen, health is defined in terms of the ability to realise vital goals. The vital goals of a person are the goals “whose fulfilment is necessary and jointly sufficient for a minimal degree of welfare, i.e. happiness” (Nordenfelt 1995: 78). Some of these goals are basic, which is to say that all human beings need them to be fulfilled in order to be minimally happy. This set of goals obviously includes, but is not limited to, the bare necessities of life: for instance having food, shelter and some economic security. (Ibid.: 91) We may want to add other things, having close personal relationships, say. A person has vital goals beyond the basic ones – beyond the ones that she shares with all her fellow human beings. These are, on Nordenfelt’s theory, essentially goals that she decides upon herself, provided that they are not trivial, counterproductive with respect to more important goals, or decided upon under compulsion. (Ibid.: 92-6) Here we may imagine such

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114 Sometimes Boorse suggests that physiological functioning not only varies with species, sex and age, but also with race (e.g. Boorse 1977: 558). That, however, makes little difference to my argument here.
goals as having children, pursuing a professional career and being physically active, to mention only a few.

Since the vital goals beyond the basic ones are to be decided upon individually they are bound to differ between persons. A person’s vital goals reflect the general direction she wants her life to have. Since the vital goals differ between persons, so does the level of ability needed to fulfil them. And health is, as we have seen, precisely the (second-order) ability to fulfil one’s vital goals. The upshot of this is that what compromises the health of one person may not to the same extent compromise the health of another, even if the two are of the same age and sex. The moderate tremors characteristic of the early stages of Parkinson’s disease may, for instance, be far more detrimental to the health of a professional violinist, for whom playing the violin well is a vital goal, than to the health of a science teacher who does not rely upon excellent motor skills in order to achieve her vital goals. And the task of the doctor, intervention for the sake of the health of the patient – in this case in order to prevent its deterioration rather than fully restoring it – will be different in the two cases.115

What we begin to see here is how a holistic view on health, paired with the thesis that the goal of medical practice is the health of the patient, requires, on the part of the medical professional, a careful attention to the particularities of the individual patient.116 The same point can be made, perhaps even more emphatically, from the point of view of a phenomenological theory of health. To put it in Svenaeus’s terminology, the unhomeliness that pervades the being-in-the-world of the violinist in my previous example is deeper, and perhaps also qualitatively different, than that which befalls the teacher. This is so because of the particular significance that the deteriorating motor skills play in her life. And finding her way back home, or perhaps rather finding a new sense of homeliness, will be different for the violinist than for the teacher. It will probably require a larger measure of redefinition of who she is and what matters most in her

115 By way of clarification, the point here is that the doctor in each case has to be sensitive to the particular vital goal profile of the patient in question if her work is to be successful. The point is not that the doctor should help setting those goals; that task remains with the patient and (as regards some basic vital goals) policy makers (Nordenfelt 1995: 129).

116 Such attention is not incompatible with a biological concept of health, but it does not follow directly from that concept. The different responses to the two cases would then have to be motivated by external (moral) considerations rather than from within the theory of health itself.
life, because this has so profoundly been called into question by the illness. And the doctor, who is to assist in the re-establishing of homelikeness, will accordingly be faced with very different tasks in the two cases.

The holistic view on health serves here to underscore the point made above about the interpretative nature of the clinical encounter. From a Boorsian point of view interpretation need not be fully absent from the encounter, but it has a rather restricted and preliminary role. The doctor has to listen to the patient’s account of her problem before even a biologically oriented therapy or diagnosis can be deployed. But once this first step towards finding out what is wrong (biologically speaking) with the patient is taken, there is little need for understanding the patient as a fellow human being. On a holistic view, on the other hand, all the steps of the encounter necessarily involve interpretation. This is because illness and healing involve the whole being-in-the-world of the patient, and there is no other way of approaching this than through attentiveness to the perspective of the patient herself.

We return here to Aristotle’s claim that practical wisdom is concerned with particulars with a clearer view of the particularity at the heart of medical practice: the patient. It should be clear from what has been said that the particularity of the patient is not restricted to the pathological fact that diseases often afflict different bodies in different ways and to different extents. Over and above this, the patient is an individual in a particular predicament that reflects who she is as a person, her particular history, the constellation of people that she is part of, her particular aims and projects, and so on. The doctor cannot blind herself to any of these particularities if she is to do well in her task of healing the patient.117

At this point the example of medical practice helps bringing out an important general feature of practical wisdom, namely that it has a certain perceptive quality. Doing the right thing in the particular situation, the mark of the phronimos, is also in an important sense a matter of seeing what has to be done. But, as several commentators have noted, the seeing in question here is not just apprehending what is simply there, independently available to any observer, like, say, shape or size. Rather, it is a kind of seeing that is already morally in-

117 Other authors, too, have noted the connection between medical phronesis and the fact that medical practice deals with individual patients (Svenaeus 2003: 422-6).
fused, a perception of what is morally significant in this particular situation. And such perception is only possible at all against a certain horizon: the knowledge of the good life possessed by the phronimos. We might say that it is a seeing what is required in the particular case in the light of that general knowledge. (McDowell 1979, Gadamer 1989: 318-9, Dunne 1993: 295-304)

Of course, the good life that medical practice is concerned with is primarily that of the patient, and it is so concerned in a particular way. This brings us to another important feature of the holistic view: the relation that it establishes between health and the good life. Again, this is perhaps most easily observed in Nordenfelt’s definition of health as the ability to realise the goals necessary for one’s minimal happiness. But the enabling character of health and, conversely, the disabling character of illness also come to light in other holistic theories. Fulford’s analysis of illness in terms of action failure has already been mentioned. Consider also Gadamer’s (1996: 113) claim that “health is not a condition one retrospectively feels within oneself”, but “a condition of being involved, of being in the world, of being together with one’s fellow human beings, of active and rewarding engagement in one’s everyday tasks”. Similarly, Svenaeus (2001: 97, 111-2) stresses how illness involves a breakdown in transcendence into the world of familiar and meaningful activities that one inhabits when healthy, how the body that normally sustains that transcendence disallows it by taking on a cumbersome, alien character (see also Toombs 1992).

Now if health is enabling with respect to action in general, it is also enabling with respect to those actions that are necessary for the good life (or happiness) – provided of course that action is at all required for the good life. As we have seen this is certainly the case from an Aristotelian perspective. It is also the case on Nordenfelt’s theory, which defines happiness in terms of want-fulfilment: “happiness could be said to be an equilibrium between the subject’s wants and the world as she finds it to be” (Nordenfelt 2000: 87). Want-fulfilment requires someone to act, either the subject herself or someone else. Even in the unlikely case of complete happiness, i.e. where the subject finds the world to be precisely as she wants it to be, this state of affairs will not persist by itself, but needs to be actively maintained (cf. ibid.).

At this point it is important to note that while, from a holistic perspective, health and happiness are connected, they are also clearly distinguished from each other. This is because the connection is
made via the concept of ability. Nordenfelt (1995: 78) writes: “Health is not sufficient [for minimal happiness], since the ability to fulfill one’s vital goals does not imply that one actually fulfills them. And health is not necessary, since the vital goals can be fulfilled by other means, for instance by the actions of someone else.” Being healthy, then, is not to be confused with being happy, nor is illness to be confused with unhappiness. Rather, being healthy is being capable of making oneself happy, of being able to live happily through one’s own doings. We may perhaps make an analogous point in terms of involvement or transcendence: the active bodily engagement in the world which health allows, and which breaks down in illness, is possibly, but not necessarily, a happy engagement. And even the disrupted ill engagement in the world need not be wholly unhappy, but the sick person will have to rely on others for her happiness; it is beyond her own reach.

This helps us to bring out something important about the doctor-patient relationship. Being ill is in an important sense being in a state of powerlessness\(^\text{118}\); when someone falls ill it ceases to be within her power to do a great number of things, among those the things she needs to have done in order to lead a flourishing life. This makes her dependent on others – relatives, friends, and, not least, health professionals. And the correlate of the relative powerlessness of the patient is the relative power of the doctor (or other professional). The doctor can do something that the patient cannot; it is within the doctor’s power to help the patient back to health (or it is at least with this hope that the patient consults her). Because of the connection made between health, ability and the good life, restoring the health of the patient can be described as restoring her own initiative with respect to the good life – as placing the good life again within her own reach.

So, from this perspective, there is an asymmetry of power between doctor and patient. One especially important aspect of this asymmetry resides in the highly specialised science and highly sophisticated and potent technology that the doctor, but typically not the patient, commands. The doctor is relatively powerful not only because the

\(^{118}\) This is of course entailed by the inability element in illness already mentioned; the concepts of power and ability are themselves intimately related (for an analysis, see Nordenfelt 2000: 129-31). The reason that I choose to talk about power rather than ability here is that I want to highlight the inequality of power between patient and physician. This is quite a general and recurrent theme in the philosophy of the doctor-patient relationship (see for instance Pellegrino & Thomasma 1981, 1993, Gadamer 1996).
patient is rendered relatively powerless by her illness, but also, and importantly, in virtue of being a representative of modern biomedicine.

To a large extent this asymmetry of course works to the patient’s advantage; it is through the exercise of the doctor’s power that her health may be regained, if at all. But at the same time it makes her vulnerable to the various forms of abuse to which that power all too easily lends itself. One form of abuse, which has proven itself particularly hard to resist, and which has consequently been the focus of much critical scrutiny, is of course paternalism. The increasingly scientific nature of modern medicine may accentuate the perennial danger of paternalism insofar as it expands the domain of that which the doctor knows better than patient. And increasingly powerful medical technologies not only increase the potential to ameliorate illness, but also make it more difficult to resist the lure of overtreatment (Pellegrino & Thomasma 1993: 121). A deeper, but more elusive, concern is that the power with which science and technology invest medical practice also brings with it a readiness to adopt a scientific-technological perspective in the encounter with the patient, to view her less as a person in need of help and more as a defective biological organism, a broken thing to be fixed.119

Now what is the significance for practical wisdom of the inequality of power inherent in medical practice and the proneness to abuse that it brings with it? It is useful here to consider a passage from Paul Ricoeur’s Oneself as Another (1994). For Ricoeur, all human interaction is marked by a fundamental dissymmetry of power between the author of the action and the one to whom the action is done. This dissymmetry between “acting” and “suffering” is the seed of all forms of violence, from verbal indignities to murder. The function of deontological morality is to counteract this tendency towards violence inherent in all interaction. (Ibid.: 220-1) Implicit in moral norms – Ricoeur is particularly interested in the continuity between the Golden Rule and Kant’s humanity formulation of the categorical imperative – is the intention to restrain the power of the agent over the

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119 The concern about this aspect of medicine’s power is quite widespread among philosophers of medicine, in particular those with a broadly Aristotelian outlook. Indeed, the appropriation of the categories phronesis and praxis, like the vindication of a holistic conception of health, is sometimes a response to precisely the increasingly scientific and technological character of modern medicine and the potential dangers inherent therein. (See for instance Gadamer 1996).
patient from which violence springs, to introduce an element of recip-
rocity between the self and the other (ibid.: 223).

The very general idea that I want to borrow from Ricoeur is that
human relationships characterised by inequality require something
that avoids the excesses of power that they are prone to – that moral-
ity responds to a need to keep power in check. If this claim holds for
human interaction in general it holds a fortiori for the interaction be-
tween doctor and patient, because here the dissymmetry of power is
particularly great. And even if the dissymmetry is not as ubiquitous
as Ricoeur believes, it does at least, as I argued above, prevail in that
particular relationship.

It should be noted that, while Ricoeur assigns the role of keeping
power in check to deontological moral norms, I assign that role to
practical wisdom. This is in keeping with the general Aristotelian
orientation of my argument. As I have made clear above, practical
wisdom is the kind of knowledge that is required for doing well in
practices – to successfully realise their particular ends and to negoti-
ate their particular difficulties. An important part of doing well
within the practice of medicine as I have outlined it, I suggest, con-
sists in wielding appropriately one’s power over the patient.

In order to bring out more clearly what I am trying to say here, let
us return to Foot’s claim that the virtues are corrective. By this she
means, as we have seen, that the virtues seek to make up for our
characteristic human weaknesses. For instance, it is only because it is
in our nature to be tempted to seek pleasure when we should not that
temperance is a virtue. My claim is essentially the same, albeit
dressed in terms of phronesis and praxis rather than the moral virtues
and human nature. It is because the exercise of power is particularly
difficult in medicine – because there is an ever-present temptation to-
wards excesses like paternalism and overtreatment – that practical
wisdom is needed to restrain that power. Phronesis in medicine is cor-
rective with respect to the abuse of power that the doctor-patient rela-
tionship is prone to.120

This aspect of practical wisdom, I suggest, intersects with two
others that have already been mentioned: insight into the good life
and attention to the particular. The doctor is required to wield her
power if healing is to take place at all. At the same time, however, her

120 For a similar argument concerning power in medicine, with particular regard
to the use of technology, see Pellegrino & Thomasma (1993: 120-5). These
authors emphasise the importance of temperance, rather than, as I do, phronesis.
power has to be tempered, and it has to be tempered in the light of the patient’s good, putting that good within her own reach, while stopping short of determining it for her. In this sensitive, enabling openness with respect to the patient’s good lies the delicate task of intervening appropriately but not paternalistically. And we have seen that patients differ, with respect to both their good and what they need in order to achieve it themselves. Wielding the power over the patient wisely is, then, a feat to be accomplished anew in each particular case.

Parenting as Praxis

I now turn to the most comprehensive frame or setting for the choices discussed throughout this dissertation, the human pursuit that ultimately renders them meaningful: parenting. I will conceive of that activity, as I have already conceived of medicine, as a practice in the sense specified earlier. Other authors too have thought of parenting along such lines. MacIntyre (1984: 88) includes in his list of practices “the making and sustaining of family life”. And feminist philosophers sometimes characterise caring for and raising children as a practice in an Aristotelian or similar sense (Ruddick 1989, Holm 1993, Kittay 1999).121

It should be noted at the outset that Aristotle did not himself think of the interaction between parents and children as praxis, but restricted that term to the public life of the polis. In Book 1 of the Politics he discusses household life (where such interaction belongs) mainly as a productive activity, geared towards the acquisition of property and merely instrumental to political life, and of household

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121 I say “an Aristotelian or similar sense” because Sara Ruddick does not explicitly trace her notion of practice back to Aristotle, but attributes it to a wide range of modern thinkers (some of whom are however certainly influenced by Aristotle), including Ludwig Wittgenstein, Jürgen Habermas and Jean-Paul Sartre (Ruddick 1989: 255, n. 1). However, her characterisation of a practice is strikingly similar to that which I have in mind: “Practices are collective human activities distinguished by the aims that identify them and by the consequent demands made on practitioners committed to those aims. The aims or goals that define a practice are so central or ‘constitutive’ that in the absence of the goal you would not have the practice.” (Ibid.: 12-3) Eva Feder Kittay (1999: 32-3) follows Ruddick’s conception of practice. Ulla Holm explicitly and extensively describes mothering as an Aristotelian praxis (which she distinguishes terminologically from ‘practice’; I shall not make that distinction).
management as a techne. But this should not discourage us from appropriating the concepts of praxis and phronesis for the purpose of discussing parenting. We have seen that the phronesis/techne distinction is less than clear-cut, that even productive enterprises may require practical wisdom. And if parenting is not a political activity in a full-fledged sense, it is so at least in the preparatory sense of making possible the child’s future life within a wider community.\footnote{For a more sustained argument against Aristotle’s exclusion of the life in the household from praxis, and for the usefulness of the concept for analysing mothering, see Holm (1993).}

Another reason to think of parenting as a practice is that it is typically undertaken for its own sake, rather than as means to achieve something else (it is sometimes pursued for merely instrumental purposes, but that is hardly the standard case). We may say that it carries its end within itself, as Aristotle puts it, or that it makes possible some otherwise unattainable aspect of the good life (Brighouse & Swift 2006). Or we may say in a more contemporary fashion that it is intrinsically valuable (cf. Nelson & Nelson 1995).\footnote{Also, what is good or valuable about parenting (I shall discuss later more precisely what that is) is typically not the object of competition with winners and losers. Rather, all who have part in the activity, parents as well as children, share the enjoyment of its goods (Murray 1996: 61-2). As we saw in the previous chapter, this is an important feature of practices (MacIntyre 1984: 190-1).}

This is not to deny that caring for and rearing a child involves a kind of making: the shaping of the child’s unique and separate self. But this making is far from the manufacture of a preconceived product denoted by poiesis, and it requires knowledge of a quite different kind than the techne possessed by the craftsperson. We are already familiar with Gadamer’s resistance to thinking of medicine as techne on the grounds that it does not so much produce health as assist in its natural self-restoration. Much the same can be said about parenting. The development of the child’s self is at least as much a natural process as the result of conscious parental rearing efforts. No matter how hard they try and no matter how apt they are, the parents can do little more than to intervene in and adjust to a course of events largely beyond their control. We have already seen Feinberg argue this point, and others have made similar suggestions (Jonas 1984: 108).

And if the “production process” characteristic of parenting differs from manufacture in the normal sense (poiesis), so does the “product”, the child. It follows from what was just said that the product in question is not just the actualisation of a preconceived
plan; what the child will be like is typically to a large extent unforeseeable by the parents. And the product is not in the end theirs and given over into the use of others, as in the *technai*\(^{124}\). Rather, it is given over to *itself*. When fully formed it is the producer’s equal. I will have more to say about this below.

**The Place of the Good Life in Medicine and Parenting – A Comparison**

So it seems plausible to think of parenting as *praxis* (or at least as involving important *elements* of *praxis*; Holm 1993: 207). But how are we to go about describing that practice? And what does that imply for the exercise of *phronesis*? In order to answer these questions, I will continue to make comparisons with the analysis of medicine and medical *phronesis* carried out earlier in this chapter. But I will also draw on the works of philosophers who have reflected on parents, children and the relationship between them.

First a terminological note: when I speak of parents I do not mean biological parents. I mean what Sara Ruddick (1989) calls “mothers”, persons who do “mothering” (Holm 1993): those who in fact take care of and raise children. Women do this work more often than men, and in most cultures it is primarily done by biological mothers. But such arrangements are contingent: men as well as women who are biologically unrelated to the children they take care of can be mothers and do mothering in this sense. In order to avoid confusion, however, I will use the gender neutral terms ‘parent’ and ‘parenting’. It follows that the locus of parenting need not be the nuclear family. It may be undertaken by the traditional man-woman dyad, but it may just as well be performed by a single parent, a same sex couple, or three or more adults together. It does, however, necessarily involve a child and at least one adult.

As in the case of medicine, an indispensable part of an account of parenting and the demands that this practice makes on those engaged in it is a conception of the end of the practice. What is the end of parenting? It may be a mistake to look for one *single* end. Many have noted that parents are faced with two quite different tasks, challenges or demands, each one difficult to assimilate into the other. These commentators use different terminologies to describe this dual-

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\(^{124}\) Again, it is Gadamer (1996: 34) who calls attention to this aspect of *techne*, for the purpose of pointing out how strange it is to think of medicine exclusively in terms of that kind of knowledge.
Good Parents, Better Babies

ity and they integrate it in their theories in different ways and for dif-
ferent purposes.

The point, however, is quite simple. On the one hand, a parent
has to ascertain the present well-being of the child, to see to it that its
immediate needs are met, to preserve and protect it. On the other
hand, the parent has to take into account the person that the child is
becoming, to let it grow and unfold, to actively shape its development,
and to prepare it for a future adult life. Sara Ruddick (1989) conceives
of maternal practice as constituted by responses to the child’s de-
mands for, on the one hand, preservation, and, on the other, growth (cf.
Holm 1993). Similarly, William Ruddick (1999) identifies two con-
cepts of parenthood that usually harmonise but that may sometimes
come into conflict: parenthood as child-caring and parenthood as
raising children. (See also Brighouse & Swift 2006)

The same duality comes to light in Jonas’s (1984) ethics, the
elaboration of which explicitly draws on the notion of parental re-
sponsibility. As we have seen, responsibility in the Jonasian sense is
construed on the paradigm of the response to the immediately per-
ceived vulnerability of the newborn. At the same time, however, re-
sponsibility has an undeniable future-orientedness. Its ultimate aim
is the perpetuation of responsibility: the child’s becoming a responsi-
ble adult in the parental case, and the possibility of responsible fu-
ture decision making in the political case. (Jonas 1984: 108, 117-8)
Jonas’s newborn example helps us see how the two temporal hori-
zons implicit in the two parental tasks just described may interlock.
Responsibility arises as a response to the needy newborn, but at the
same time against the backdrop of a looming future disaster that must
be avoided: the child’s “sinking back to nothing” (ibid.: 134).

This should make us cautious about thinking of taking care of the
immediate needs of children and raising them as two aspects of par-
enting wholly isolated from each other. However, it is useful to con-
tinue keeping them separate for the time being. The reason is that,
while the two tasks may not be clearly isolable with regard to their
respective temporal horizons, they take into consideration the child’s
flourishing in quite different ways. In her role of child carer, a parent
is (often together with one or more additional parents) directly and
fully responsible for the child’s immediate well-being, the more so the
smaller the child is. Whether or not the child flourishes – at present,
as a child – is very much contingent upon the doings of the parent or
parents. Usually this great responsibility comes with a large amount
of discretion. In attempting to secure the child’s present flourishing,
the parents primarily look to their own conception of that flourishing. There are certain limits of course: the community to which the parents belong, as well as the state and certain individuals have various formal and informal means of intervening for the sake of the child, should parental care be found wanting.\textsuperscript{125}

Things are different when it comes to raising children. Concern for the child’s flourishing – albeit future flourishing – is of course crucial to this task too. However, it is often noted that not only the child itself has a stake in being raised (Blustein 1982, Jonas 1984, Ruddick 1989, Holm 1993, Ruddick 1999). States want particular kinds of citizens, and communities want particular kinds of members, and both consequently do what they can to influence the way that children are socialised. And a great share of the burden of socialisation, in the form of laws and policies as well as less explicit cultural norms, falls on the parents. In that sense, parents are more circumscribed as child-raisers than as child-carers. In relation to this, feminists have suggested that parents are particularly exposed to, and likely to reproduce, dominant and potentially oppressive norms and practices when they are engaged in the socialising aspects of parenting (Ruddick 1989, Holm 1993). But this should not lead us to conclude that socialisation is against the interests of the child. To the contrary, from an Aristotelian point of view at least, the child’s only chance to flourish as an adult is to flourish as a member of a community. So some sort of socialisation – some preparation for a life within a community or communities – seems indispensable.\textsuperscript{126}

\textsuperscript{125} A short digression may be needed here. The parents’ idea of the child’s flourishing should not be thought of as isolated from the beliefs of their community and the wider society and culture, but without doubt reflects these. In the shape of norms internalised by the parents, cultural beliefs probably affect childcare to a very large extent. However, the scope of direct and formally sanctioned state intervention is much smaller. State obligations with respect to childcare may plausibly be thought of as “backup obligations” (O’Neill 1979): they complement more extensive parental obligations and see to it that parents can and do fulfil them.

\textsuperscript{126} Some identify two different tasks within what I have described as raising children. Sara Ruddick makes a distinction between “fostering growth” and “socialisation for acceptance” on the grounds that the latter demand “is made not by children’s needs but by the social groups of which a mother is a member” (Ruddick 1989: 21). As a feminist she is suspicious of this demand: it arises from practices and institutions that dominate mothers and children and tends to promote “inauthentic” mothering (ibid.: ch. 5). Holm (1993: 256-64) criticises this view: children, she points out, need to belong to wider communities, and socialisation can be thought of as responding to this need rather than to the demands of
Also, crucially, preparing the child for a good future life involves preparing it for taking primary responsibility for that life. This is essential, in part, because of the simple fact that children tend to (or are at least supposed to) outlive their parents. Parental responsibility for the child’s flourishing generally cannot last throughout the whole life of the child. Of course, parents can assign their responsibility for children to other adults, in which case these adults become parents in the sense that I intend with the term. But generally, the tacit assumption behind such arrangements too is that in the end it is the children themselves that should assume responsibility, when they become capable. It seems, then, that even if others could be primarily responsible for a child’s good throughout its life, we tend to think it is better that, if possible, the child takes on that role itself at some point. We tend to regard the capacity of playing that role for itself as a highly valuable goal of the child’s development.\footnote{This account admittedly does not apply in the same sense to the parenting of disabled children as to the parenting of non-disabled children. In an insightful discussion, Eva Feder Kittay (1999: 162-73) argues that the meaning of the parental tasks of preservation and fostering development (as well as socialisation) changes when it comes to disabled children. Preservation takes on even more importance and fostering the child’s development does not primarily aim at independence. She writes: “when we think of mothering a disabled child as enabling and fostering development, we must also reconceive development, not only toward independence, but toward whatever capacities are there to be developed.” (Ibid.: 173)}

There are several ways to make this point about one of the ends of parenting. William Ruddick (1999: 243) writes that “[r]aising a child is [...] raising an adult”. Others have suggested that parenting, in the sense of raising a child, aims at evening out the asymmetry from which it arises – the child’s dependence on the parent (Holm 1993: 211). This means that parenting, in this sense, carries with it the seed of its own annulment (cf. Jonas 1984: 175). And many have argued that a crucial obligation for parents is to promote the future autonomy of their children (see for instance Blustein 1982, Feinberg 1992). These claims are closely related: being autonomous is at least part of what it is to be an adult capable of, and responsible for, realising one’s own flourishing, though not necessarily all of it.
This can be further expounded by way of analogy with my earlier argument about the end of medicine. Drawing on holistic theories of health and illness, I argued that medicine aims at restoring the patient’s lost initiative with respect to pursuing the good life. Something similar can be said about parenting. Of course, the child has never had the initiative with respect to its own flourishing, and consequently cannot have lost it. So, unlike the doctor who treats an adult patient, the parent does not bring the good life back within the other’s own reach, but instead brings it within her own reach for the first time.

Notwithstanding this difference, medical practice and parenting, understood as raising children, are characterised by a similar openness with respect to the good life. In restoring the patient’s ability to lead a good life through her own doings, it is not for the doctor to decide the contents of such a life or to attempt to realise it directly. Similarly, it is the task of the parent to provide for the child’s flourishing as an adult, but that includes neither the prerogative of deciding about the details of the adult flourishing life, nor the responsibility of securing those details. The former would be immoral, as proponents of the child’s right to an open future remind us. The latter would be highly impractical, perhaps even impossible, taking into consideration the limited knowledge a parent has of the circumstances in which her child will live as an adult (cf. Ruddick 1999: 247, McGee 2003: 834-5). The child must be treated as someone who will have her own view with respect to the contents of the good life, and as someone who will herself have the primary responsibility for realising such a life.

Arguably there is, after all, some difference between medicine and parenting at this point. Doctors are always or nearly always supposed to ultimately let their judgments concerning patients’ good recede in the face of the patients’ own conceptions, should the two views not harmonise.128 Parents, on the other hand, are permitted – perhaps even expected – to shape their children’s futures in ways that reflect their own deeply held values and commitments. To some extent, such shaping is tolerated even when it diminishes the child’s

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128 Whether or not exceptions to the primacy of the patient’s view on the good life are granted depends on what position one takes on so-called “strong paternalism”. Within a principlist framework, such paternalism is understood as a rare case of beneficence trumping respect for autonomy, of setting aside the patient’s fully autonomous wishes for the sake of promoting her good. See Beauchamp & Childress (2001: 181, 185-7) for an analysis along these lines.
future opportunities to choose and pursue her own way of life.\textsuperscript{129} However, one should be careful not to exaggerate this difference. No matter how successful a parent may be in shaping the child’s life story according to what she herself finds best, it is the child itself who will some day claim primary authorship of that story. And, barring the most severe forms of indoctrination, there is always a chance that she wants it to take a different direction than her parents intended.

In short, my claim is that parents-as-child-raisers are responsible for the adult flourishing of their children in much the same way as doctors are responsible for the future flourishing of their cured patients. Both kinds of responsibility have the same enabling and open-ended quality. Contrast this with the concern for the child’s immediate good characteristic of parents-as-child-carers. When performing that task, I have argued, parents rely primarily on their own conception of the child’s good, and that good comes about primarily through what they do.

\textit{Parenting, Power and Practical Wisdom}

Parenting shares with medicine another important feature, which is implicit in what has been said already. Parenting too is constituted by an asymmetrical relationship. It is widely recognised among scholars who devote attention to the parent-child relationship that children depend on parents for their flourishing – even survival – and that this gives parents significant power over their children (Jonas 1984, Ruddick 1989, Holm 1993, Nelson & Nelson 1995, Kittay 1999, Brighouse & Swift 2006). And parental power, too, is for both good and bad. A child, because it cannot by itself fulfil its own needs, can only flourish at all through the actions of someone else who can – that is, through the exercise of parental power. The dependence of the small child is unusually extensive, more so than is typically the patient’s dependence on the doctor (cf. Jonas 1984: 105-6), and correspondingly, parental power is particularly great. This also makes children particularly vulnerable to misuse of that power. (Holm 1993: \textsuperscript{129} Much of the debate about the child’s right to an open future concerns precisely the proper balance between, on the one hand, parental influence, and, on the other, the child’s future freedom. Feinberg’s critics argue that this right does not leave sufficient room for the parents’ interests in rearing their children according to their own values and commitments (Ruddick 1999, Mills 2003). But Feinberg maintains that respect for the child’s right to an open future is compatible with granting parents extensive freedom with respect to favouring their own ways of life (Feinberg 1992: 88).
211-4, Kittay 1999: 33-7). Hilde and James Lindemann Nelson (1995: 37) write that “[t]he power of parents over their children is the most terrible, because it is easiest to misuse”.

I argued earlier, drawing on Foot and Ricoeur, that the exercise of power was a central difficulty in medical practice, and that a crucial role of medical phronesis was to handle that difficulty. An analogous point can be made here about parenting. Practical wisdom within parenting can be conceived of as a corrective with respect to the misuse that parental power easily lends itself to.

However, this takes on a slightly different meaning in parenting than in medicine. I have already suggested that parents are entrusted with their children’s flourishing in two different ways: as child-carers and as child-raisers. Correspondingly, there are two ways in which parental power is appropriately exerted: for the sake of the present flourishing of the child as a child, and for the sake of the child’s future flourishing as an adult. And there are two ways in which a parent’s power over a child may be misused. The failure of parents-as-child-carers to exercise their power in the light of the child’s present good takes various forms. Neglect, to mention one such form, consist in not acknowledging or exerting parental power to a sufficient extent. Conversely, in cases of physical abuse that power is not sufficiently restrained.

The power of parents-as-child-raisers may go astray in somewhat different, often less conspicuous, ways. Failure in caring for a child may of course also constitute a failure in child raising; abuse as well as neglect tend both to hurt the child immediately and to have repercussions for its long-term development. But there is not always such an overlap. What seems to be an appropriately swift response to the present needs of a child may appear too quick from the point of view

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130 The underlying assumption here is that, put in very general terms, parental power is used appropriately when it is used for the child’s good and inappropriately when it is used to the detriment of the child. Here I follow a distinction Kittay makes between inequality of power and domination within dependency relations: “The inequality of power is endemic to dependency relations. But not every such inequality amounts to domination. Domination involves the exercise of power over another against her best interests and for purposes that have no moral legitimacy.” (Kittay 1999: 34) This way of putting things easily invites interpretation in terms of the familiar consequentialist concepts of harm and benefit. But I think that it is in fact neutral with respect to normative theories. A virtue ethicist might for instance say that it is the mark of a virtuous parent to be concerned about the good of her child, and that the parent falls short of being virtuous if she uses her power in ways that do not demonstrate such concern.
of its development into a flourishing adult. Sometimes the parent has to stay in the background, to quietly observe a small step towards maturity rather than to risk reinforcing its dependence by immediately intervening (cf. Ruddick 1989: 89-90, Holm 1993: 251-3). An eagerness to intervene may then hide a form of paternalism not unlike that which the doctor’s power is prone to, albeit on a different time scale; the other is not treated with sufficient openness with respect to her own good.

It seems, then, that sometimes a delicate balance has to be struck between the demands of care and the demands of growth. We have already seen William Ruddick (1999) point towards the scope for tension here. The difficulty is compounded by the fact, already hinted at, that parents are never only child-carers or only child-raisers, but always both at the same time. A child is always also an adult in the becoming, and this duality is reflected in the demands that parents are faced with. However, in the course of the child’s development, a different weighing of the two kinds of demand occurs. Slowly and gradually, attention to the immediate needs of the child gives way to the tentative openness that I have argued characterises parenting in the child-raising mode. Little by little, responsibility for the child’s flourishing is given over into the hands of the child itself. As we have seen Feinberg (1992: 96) put it: “[a]t every subsequent stage the immature child plays an ever-greater role in the creation of his own life, until […] he is at last fully and properly in charge of himself”. (Cf. Holm 1993: 211, Nelson & Nelson 1995: 39)

This brings us once again back to Aristotle’s claim that practical wisdom is concerned with the particular. We saw that in medical practice the particular in question was primarily the individual patient; because each new patient is different, the doctor cannot rest content with a machine-like application of accumulated experience from past patients. This is also true of parenting; a new child never develops in exactly the same way as any other child that one may have parented before (Holm 1993: 244). More importantly, however, new challenges continually arise also within the course of each individual child’s development. Because of the ever-shifting balance between the demands of care and the demands of growth, the appropriate response is never fully given beforehand, even by rich, concrete experience from this particular child. Of course, such experience is indispensable, but over and over again experience is put to the test in new particular circumstances, and deepened in the process. *Phronesis*
is precisely this ongoing, self-correcting and self-refining dynamism of experience (Dunne 1993: 292-5).

However, it would be a mistake to characterise the difficulties involved in the exercise of parental power merely in terms of appropriately responding to demands arising from within the child’s developmental trajectory. One also needs to take into account the already described multitude of external (state-, communal-, familial- and so on) interests involved in raising children, and the strong social norms that consequently govern that activity. The exercise of parental power is especially precarious when it is used to socialise children, because then it is particularly fuelled by pervasive but elusive norms (Lindemann 2006: 177-8). The openness with respect to the child’s future flourishing is, then, not only vulnerable to the paternalistic temptation inherent in parenting-as-child-care – to care that, so to speak, oversteps its bounds. It is also, when parents engage in socialisation, easily thwarted under the pressure from norms and expectations on parents-as-child-raisers to shape the child in particular directions. Exercising parental power wisely correspondingly has two sides: moderating one’s power in view of the shifting requirements that the child itself poses in the course of its development, while at the same time being critically aware of, and when appropriate resist, the influence of norms and expectations on that exercise.

Concluding Remarks: Practical Wisdom and the Absence of a Concrete Other

Let us now at last return to my suggestion, in Chapter 5, that the uses of reproductive technologies discussed in this dissertation are characterised by a one-sided mode of interaction. By this I meant that when parents-to-be, with the assistance of health professionals, use these technologies to select various traits for their future child, their choice cannot be in any way attuned to that particular child. The intervention does not await and respond to the appearance of the child; the full initiative lies with the parent-professional constellation. After the long detour in this chapter and the previous one over Aristotelian practical philosophy, filtered through hermeneutics, we seem to have arrived at a position from which we can begin to discern an answer to the question why we should be troubled about this one-sidedness.

Practical wisdom is concerned with getting things right in the particular situation where one finds oneself; it is a matter of drawing
constructively on general knowledge and accumulated experience in order to respond to the unique difficulties at hand. Within medicine the particularity around which phronesis gravitates is the concrete patient. Whether or not the doctor does well is always to be determined by reference to her, by how well the unique set of challenges that she presents the doctor with are responded to. Similarly, parental phronesis is exercised through the nuanced responses to the continually shifting demands of a particular growing child, with a particular set of potentialities and a particular course of development. In parenting as in medicine, success is achieved in close interaction with a concrete other to whom one relates in an attuned manner, carefully adjusting one’s power. Phronesis is here structured as responsiveness in the Jonasian sense described in Chapter 5. It has an essentially relational nature.

When it comes to interventions directed towards future persons, however, there is plainly no concrete other at hand, no particularity towards which practical wisdom can be exercised in this responsive manner. The peculiar one-sidedness of the interaction is troubling, then, because it does not seem to admit of wise action in the sense characteristic of the doctor-patient and parent-child relationships. Whether these choices are conceived of as acts of medicine or as acts of parenting they seem outside the fabric of human interaction where wise choices are normally made. The wheels of phronesis spin freely; there is nothing there for them to hook up with.

So it seems, on the face of it, that the intuition that there is something troubling about using reproductive technologies to select non-disease traits in future persons might be given a justification. But as it stands, the account briefly sketched here leaves several important questions hanging in the balance and it certainly needs to be fleshed out considerably. Most importantly, it remains unclear if and how it might help us explain the alleged moral difference between different uses of reproductive technologies. Indeed all such choices seem fundamentally alike in the sense that they are made in the absence of a concrete other. In the next and final chapter of this dissertation I shall further explicate some of what still remains insufficiently articulated in the argument so far, for the purpose of making possible a more thorough analysis of, and response to, the intuition at the heart of this dissertation.
CHAPTER 8

Good Parents, Better Babies – Getting to the Roots of the Intuition

Introduction

In this final chapter, I will attempt to take my account of the moral intuition about reproductive technologies at the focal point of this dissertation a few steps further, and explain more fully than what has been possible so far why I think that we are justified in having that intuition. I will first draw on my explication of the concepts of phronesis and praxis and my comparative analysis of medicine and parenting to considerably expand on the remarks about practical wisdom and the problem of the absent concrete other that I made at the end of Chapter 7. This will also allow me to return to the issue of instrumentalisation discussed in Chapter 5. I shall argue that this combined account of instrumentalisation and practical wisdom in medicine and parenting gives us reason for concern about enhancement uses of reproductive technologies, which are not at the same time reasons to worry about their use for the purpose of avoiding severe disease or about what I have called “environmental enhancement”. Developing the argument will involve returning to the four cases that triggered the whole discussion in this dissertation. I will then respond to a couple of objections to my argument, and briefly revisit the question of the child’s right to an open future.

The Nature and Scope of the Problem with the Absent Concrete Other

A Lack of Knowledge

The problem that has emerged through my discussion of practical wisdom in medicine and parenting can be described in terms of knowledge. When choices about the characteristics of future children
are made, the knowledge required to guide such choices is in an im-
portant sense missing. It is crucial to make clear just what this claim 
amounts to. I am not merely repeating Jonas’s (1984) point that tech-
nological development has put us in a position where we cannot 
foresee and control the consequences of our actions. My argument 
should thus be distinguished from risk-based arguments. Discussing 
genetic enhancement of cognitive performance, Norman Daniels lists 
some of the uncertainties that such arguments are typically con-
cerned with, and illustrates how deep and complex they may be:

Suppose we are interested in improving (otherwise nor-
mal) cognitive performance on some range of tasks, say 
reading performance or reasoning from presented evi-
dence. Suppose we hypothesize […] that improving short-
term memory could enhance performance on the more 
complex cognitive task. Suppose we then found an asso-
ciation or modest correlation between better performance 
on some tasks measuring short-term memory and some 
pattern of alleles. Suppose further […] that we can modify 
embryos we plan to carry to term so that they have the 
preferred pattern of alleles […]. What else might we have 
to know to proceed ethically with the modification? […] 
We would have to know that the increased short-term 
memory involved here actually plays a role in enhancing 
the more complex cognitive task rather than interfering 
with it. […] [W]e would have to be sure the association we 
found was not specific to a poor sampling of environ-
ments […]. And all of this information goes well beyond 
the standard worry that the intervention itself carries 
with it risks that non-interference lacks. (Daniels 2008 [in 
press])

What is quite clear from all this is that were we to embark upon ge-
netically enhancing traits of the type that Daniels has in mind in fu-
ture persons, we would simply know too little to get it right; hence the 
conclusion that “a careful human research protocol would most likely stop this experiment in its tracks” (ibid., cf. Anderson 1985: 288).

My point is indeed that we would know too little, but I want to 
indicate another sense in which that claim is true. I am of course deny-
ing neither that IGM and other reproductive technologies involve
risks of the kind described, nor that these risks matter morally. Nor do I want to contest that the risks weigh more heavy in cases of enhancement than in cases of avoiding disease, because of the smaller magnitude of the benefit (Buchanan et al. 2000: 153, President’s Council on Bioethics 2003: 48, Daniels 2008). What I want to emphasise is that the risks considered so far are due to scientific and technological limitations. This means that they are, in principle at least, surmountable. Should our knowledge of how genes influence cognitive performance greatly expand, and techniques for gene transfer greatly improve, the risks would consequently decrease.\(^{131}\)

Choices concerning the characteristics of future persons involve further uncertainties, which may also be important, but which cannot be limited by scientific and technological advances. Those who choose cannot know very much about the person in question, for instance about what kind of life she will aspire to (cf. Chapter 4). Also, their knowledge about the social and cultural circumstances in which she will live is bound to be limited (cf. Ruddick 1999, McGee 2003).

The lack of knowledge that I want to call to attention to is, however, not captured by these uncertainties either. What I am suggesting is missing in the situation of choice, and necessarily so, is moral knowledge. This is, importantly, not reducible to a lack of information, whether of a scientific kind or of the non-scientific kind just described. It can be overcome neither by technological-scientific progress, nor by some oracle-like ability to foresee the future. This is because moral knowledge, on the analysis of the previous two chapters, is essentially a form of hermeneutical understanding, situated in the dialogical encounter with the concrete other. Insight into the nature of the good life is only fully gained in such an interpretative self-other encounter and cannot in any simple way be abstracted away from there and possessed in the way that one might possess information. The problem that I am describing, then, is not primarily that choices are made for a person about whom little is known, but rather that they are made outside of any real relation to that person. The absence

\(^{131}\) Indeed, many discussions about the ethics of enhancement uses of reproductive technologies depart from imagined scenarios where technological and scientific limitations are already largely overcome. My own genetic enhancement case is one example. Such scenarios are open to various forms of critique, for instance on the grounds that they underestimate the difficulties that they imagine away. However, they constitute a rather standard approach to the ethics of novel technologies. For a defence of such an approach, see Agar (2004: 34-8).
of such a relation involves, one might say, an absence of a clear sense of direction concerning that person’s flourishing and how best to promote it.

Instrumentalisation Revisited

The scope of this problem cannot be adequately assessed without returning again to the issue of instrumentalisation. Quite generally, there is a connection between Aristotelian practical philosophy and instrumentalisation in the Heideggerian sense discussed in Chapter 5. Heidegger’s concern about Enframing can be read as a concern about how something like a phronetic way of understanding and dealing with the world around us might get lost as the scientific-technological view on things becomes increasingly entrenched.132

In the context of my argument, the connection between phronesis and instrumentalisation can be spelled out in the following way. I have described various tendencies towards the misuse of power that pervade medicine and parenting because of the fundamental inequality that constitutes these practices. In medicine, one such tendency is present in the ease with which the ill patient is viewed as merely a malfunctioning biological entity, and another – sometimes perhaps related – in the paternalist temptation. In parenting too, there is an ever-present temptation towards excessive paternalism, towards treating the child too much as an object of immediate responsibility and not enough as someone who will someday claim responsibility for herself. Also, parental power easily goes astray under the influence of pervasive norms concerning socialisation. These tendencies are characterised by a proneness to rely too easily and uncritically on the normal or the familiar – the way it is assumed that things naturally are and ought to be – whether in the form of personal views concerning the best for the child, dominant social norms, or the powerful conceptual framework of biomedical science. If taken to the ex-

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132 Heidegger does not explicitly invoke the concepts of phronesis and praxis in "The Question Concerning Technology". What troubles him seems to be a change within techne, from a sensitive and attuned approach to the things encountered in production to a fully instrumental view on them. I think, however, that this change can be understood as a change from a techne that retained some aspects of phronesis to a techne completely let loose from that kind of knowledge. As we saw in Chapter 7, phronesis and techne should not be understood as mutually exclusive categories, but may both have their place within the same activity (cf. the discussion of the “technai of the kairos” in Dunne 1993: 253-61).
treme, they are *instrumentalising* insofar as they threaten to make the other a sole object of one’s own expertise and discretion.\(^\text{133}\)

I have also suggested that an important part of what it means to possess and exercise practical wisdom in parenting and medicine is to be able to temper these tendencies, to avoid that power degenerates into abuse. In that sense, *phronesis* is a counterweight to instrumentalisation. In the encounter with the concrete other, there is a possibility of stepping out of the confinement of one’s own perspective on her and escape the push towards instrumentalisation inherent therein. She represents a genuine otherness that offers resistance to that perspective. In the absence of such an encounter, however, it is all too easy to fall back on the familiar, be it in the shape of one’s own personal judgment or in the shape of the dominant, taken-for-granted views prevalent in the practices one engages in or in one’s society and culture quite generally. Choices on the behalf of others made outside of a relation to them are susceptible to distortion under the pressure of such views and conceptions. This makes them fraught with a danger of instrumentalisation.

Note that I am not here merely returning to the observation made in my discussion of Kant in Chapter 5 that there is something instrumental about *any* choice that brings a child into the world. Nor am I merely repeating the claim made later in that chapter that choices concerning future people are unavoidably one-sided and non-responsive. Rather, my characterisation of medicine and parenting, and their respective difficulties, allows us to see more clearly what is instrumentalising about that kind of perspective on the child. It is not that one-sidedness in itself is instrumentalising. Rather, the problem with one-sidedness in medicine and parenting is that it leaves those involved in these practices with little to put up against instrumentalising forces endemic to them, because it makes them vulnerable to ever-present temptations to relate to the other less as a distinct being with distinct claims and more as a thing over which one exercises complete discretion. That is, the danger that one-sidedness opens for is that an instrumentalising stance of the kind that Heidegger calls Enframing may be let loose within these practices and increase their hold on them.

On the level of the particular choice this means that the parents may too easily adopt such a way of thinking about and relating to

\(^{133}\) There is obviously a certain Levinasian flavour to my remarks on instrumentalisation in this paragraph and the next (see Levinas 1969).
their future child – that they may come to view the child too much as something to be fitted within their own projects or ordered into dominant patterns of normality. This is arguably disturbing enough in its own right. However, an account of instrumentalisation as merely a feature of individual choices is incomplete. The discussion in the last two chapters also makes it possible and important to say something about instrumentalisation on the collective, practice level. When the scope for practical wisdom within parenting and medicine shrinks, not only individual choices made in the context of those practices, but also the practices themselves, are in danger of transforming in an instrumentalising direction. This is because the relationship between phronesis and praxis goes both ways: practices are not only the arenas on which the exercise of practical wisdom is made possible, but are also themselves contingent on that exercise for their integrity and continuation. That is, the two are mutually dependent.  

In the case of medicine, when encounters with individual patients lose importance, the generalised biological and technical viewpoint with which the particularised concern of such encounters always coexists may become all the more dominating. This may feed a conception of medicine as more of a research enterprise than a practice concerned with human health and flourishing. But this inner pressure towards technicisation and biologisation is perennial in modern medical practice quite generally, and manifests itself in many different ways. Changes within assisted reproduction may at most lend it a certain additional weight.

What is more troubling is how similar pressures may gain momentum within parenting. If parental choices are increasingly made in the absence of a relation to a concrete child, parents’ tendency to seek recourse to their own view of the good, or the received view of their culture, may become reinforced. And the price will be a general

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134 While I have not explicitly defended the assumption of such a relationship of mutual dependency between praxis and phronesis, I believe that it is implicit in the account of practice outlined in Chapter 6. It is also implicit in Gadamer’s (1981) combination of concern that praxis is in danger of being deformed by the spread of scientific and technical rationality, and hope that whatever remains of practical wisdom may still be invoked in order to limit that spread. The idea of such a relationship is also evident in MacIntyre’s (1984: 193-6) argument that the virtues sustain practices and that, in the absence of the virtues, practices are vulnerable to corruption (or we might say instrumentalisation) by the technical reason characteristic of the institutions in which they are situated.
weakening of the opposite tendency: the characteristic tentative openness with respect to the child’s future good. Parenting may then become thought of less as a matter of gradually discovering and making that good possible (in the mode of praxis), and more as a matter of realising some view of the good already settled for (in the mode of poiesis), and practised accordingly. It may increasingly take on the character of a unilaterally parental or societal project.

Even more disconcerting is that the familiar perspective that parents, in the absence a concrete child at the centre of their concern, may be tempted to look too uncritically to for guidance, may well be medicine’s perspective. This temptation may be quite strong because, as I have suggested, choices of the kind that I discuss are located where parenting and medicine intersect. In a sense, then, parenting too is vulnerable to the instrumentalising tendencies – the pressure towards a biological or technical perspective on the other – at work within modern medicine. At worst, these tendencies may foster an impoverished and medicalised view of parenting and its purpose. The open-ended, tentative character of child raising may then begin to lose ground to a concern with meeting standards narrowly defined in terms of biological normality.

In short, the problem with making choices for children in the absence of a concrete relation to them is not only to be understood in terms of an uncertainty concerning their flourishing and how to best attend to it. One crucial aspect of this lack of moral knowledge is that it makes such choices susceptible to, and at risk of further amplifying, instrumentalising forces.

Contrasts with Consequentialism and the Parental Virtue Approach

Let me make two remarks at this point in order to clarify this account of practical wisdom and instrumentalisation, and situate it better in my broader discussion. First, I am suggesting that the moral problem posed by reproductive technologies is less of an individual nature than both the harm focused approach considered in Chapters 3 and 4, and the discussion of parental attitudes and parental virtue in Chapters 5 and 6, were able to recognise. It is not only about how

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135 I am by no means alone in suggesting that the moral concerns that reproductive technologies raise are not only of an individual kind. Sandel’s (2007) discussion of the threat of enhancement technologies to important aspects of our shared “moral landscape” comes to mind. And Habermas’s (2003) ruminations about
particular parents’ attitudes or character are reflected in the choices they make, as on the parental virtue approach, but rather about the interplay between individual parental choices and aspirations and collective patterns of thought and action. The roots of instrumentalisation are located as much in shared practices and wider social circumstances as in individual vice. One important implication of this is that individual parents are less reproachable for questionable uses of reproductive technologies than on the parental virtue approach (but not therefore wholly beyond the pale of moral reproach).

The repercussions of instrumentalisation, too, partly take place on a societal and practice level, so the problem cannot be characterised only with a view to the particular children that are created either, as the harm-based approach suggests. Rather, it concerns most or all of us, because it consists partly in that practices and relationships that play important roles in our lives quite generally may take on a more instrumental character.

Second, note however that my account of why this is morally problematic is not consequentialist in any straightforward sense. My point is not primarily that an instrumentalising stance may make parents prone to risk harming their children (although it might – later in this chapter I shall briefly return to the question of the child’s right to an open future to indicate how). Nor does the main problem with such a stance lie in some other undesirable consequences that it may bring about. Rather, instrumentalisation is itself a defective mode of human interaction. It is a way of relating to and conceiving of each other that is inimical to our flourishing in and through important practices, but that at the same time is always latent within them. This also means that it is not itself fully comprehensible as a negative consequence in the consequentialist sense. Instrumentalisation is not an undesirable state of affairs separable from the actions that cause it, but rather already present in the actions themselves.\footnote{I realise that this is a contentious point. Much more could certainly be said about the differences and similarities between consequentialism and the brand of Aristotelianism that I rely on. (It may even be the case that some form of consequentialism, paired with a sufficiently rich conception of the good life could ac-

\footnote{the ethical self-understanding of the species” certainly involves a concern about how genetic technologies transform our thinking and acting as a community not fully captured by his discussion of how particular engineered children may be affected. See also discussions of the significance of reproductive technologies for parenting and family life in Murray (1996) and President’s Council on Bioethics (2003). Further, issues concerning the impact of such technologies on social justice have been widely debated; see for instance Buchanan et al. (2000).}
The Twofold Distinction

The argument elaborated over the course of the last three chapters, if sound, gives us reason to be wary of genetic selection and engineering of non-disease traits in future persons. But does it also show that these reasons are not also reasons to be concerned about “environmental” enhancement or selection against severe disease? That is, does the argument really explain and justify the double distinction captured by the intuition at the centre of this dissertation? I shall suggest that it does.

The difference between enhancing children by means of reproductive technologies and by educational or other social means is the easier one to spell out. I suggested already in Chapter 5 that the latter type of enhancement need not involve the one-sidedness towards the child characteristic of the former. There is already a concrete, particular child to which the intervention can be attuned. A phronetic approach to child-shaping, which resists the instrumentalising tendencies described above, is in principle open – though certainly not always taken – as long as the shaping proceeds by social means. The problem of an absent concrete other does not arise.

Selection against Severe Disease: Practical Wisdom, Uncertainty and Illness Experience

What about the distinction between avoiding severe disease and selecting or enhancing non-disease traits? At first glance this distinction seems difficult to sustain from the point of view of the argument that I have developed. Regardless of what would-be parents choose for their yet unborn child, they seem faced with the same problem: there is no concrete child to which the choice can be attuned. Whatever decision they make is inescapably one-sided. Thus they cannot accommodate much of what I say here). Let me just indicate that my remarks on instrumentalisation, practices and flourishing reflect the intimate means-end relationship in Aristotelian practical philosophy – the close links between actions, their aims, and the good life – discussed in Chapter 6. This Aristotelian legacy is reflected in similar ways in the works of other authors as well, for instance in MacIntyre’s (1984: 188-203) discussion of goods internal to practices and why consequentialism cannot accommodate such a notion. See also, more generally, the neo-Aristotelian virtue ethical theories (e.g. Hursthouse 1999, Foot 2001), which evaluate actions teleologically (right actions are in accordance with or expressive of the virtues, and the virtues are at the same time means to and part of human flourishing) but in a non-consequentialist manner (what counts is not how much flourishing actions produce as compared with alternative actions).
be in possession of moral knowledge of the kind that only arises within the context of concrete human interaction and that corrects for instrumentalising tendencies. How can we speak of some choices as wiser than others in a situation where the encounter with the particular, crucial to practical wisdom, simply does not occur?

Here as before it is important not to misunderstand the kind of knowledge at issue. Phronesis cannot aspire to complete certainty. The fundamental insight that leads Aristotle (in the Nicomachean Ethics 6) to set that kind of knowledge apart from episteme and techne is precisely that in the practical-political life we can never expect to act with scientific prescience and with full control over all circumstances. In praxis chance is endemic. Action is always an adventure (Gadamer 1981: 109) in the sense that one cannot be completely sure what one embarks upon and what the consequences will be. And this fundamental uncertainty, I believe, also includes some degree of moral uncertainty. When acting with less than complete grasp of all relevant circumstances and the consequences that might ensue, the answer to the question which course of action to opt for will often remain to some extent indeterminate, even to the wisest of agents and even after thorough deliberation.

If this is right, then we should think of practical wisdom not so much in terms of knowing how to escape (moral and non-moral) uncertainty as in terms of knowing how to act in the face of uncertainty. The phronimos should be able to respond also to less than ideal situations, where the conditions on which she can usually rely for acting wisely do not obtain. My suggestion that the choices concerning the characteristics of future persons that reproductive technologies make possible can only be made with great uncertainty, and that they are marked with a danger of instrumentalisation, then, does not imply that no such choice can be better or worse than any other. And it does not imply that it is better to avoid using such technologies altogether, as if that were not also an uncertain choice (given that the technologies are in fact in place). Rather, the technologies present us with a situation that requires acting in some way or other. The crucial question is how best to manage the fundamental uncertainty that pertains to all available choices, how to navigate the unavoidable gaps of knowledge while drawing on whatever knowledge is nonetheless available.

I think the answer to that question has to take into consideration one central feature of Aristotelian practical wisdom: it is knowledge of an essentially experiential nature. This suggests that falling back
on previous experience (one’s own as well as that of others) is an indispensable component of action in the face of uncertainty. This is of course not a matter of routinely doing just what one has always done, but rather of approaching the uncertainty about what should be done in this particular case through experience acquired from past cases, in a way that however also allows for reappraisal of that experience.¹³⁷ This critical element notwithstanding, wise choices are always made against a background of experience.

Can there be such an experiential background to fall back on when choices of the kind discussed in this dissertation are made? Consider the case of selection against severe disease described in Chapter 1. In that case we met Susan, an unaffected carrier of an X-linked single gene disorder called Duchenne muscular dystrophy, and her husband Peter, who want to have a child together. They decide to use IVF and PGD in order not to risk having an affected child. I believe that the couple in making this choice can draw on experience to safely assume that whoever their child will be, a disease like the one selected against would be inimical to its flourishing. Indeed, the experience in question here is in important ways available to all of us. Let me explain this claim.

I am suggesting that we all know that severe diseases are genuinely harmful, that they stand in the way of the good life of all who suffer from them. We know this partly from personal experience. Most of us have ourselves suffered illness severe enough to temporarily deprive us of the initiative with respect to pursuing the good, and to render us dependent on others. At the very least, we are intimately familiar – from a range of everyday phenomena that are part of healthy as well as ill lives: fatigue, headache, hunger and so on – with the alienation of the body and the associated incapacitation and disrupted transcendence at the core of illness (see Chapter 7). Each and every one of us has access to this experience, because it is rooted in the inescapably embodied nature of our being. We are also able to imagine what it would be like if that temporary everyday alienation and incapacitation were instead much deeper and more permanent features of our lives, as they are in severe illness.¹³⁸

¹³⁷ Here I follow closely Gadamer’s (1989: 319) and Dunne’s (1993: 292-5) (Gadamerian) characterisations of phronesis in terms of experience.
¹³⁸ This is an adaptation of an argument of Kay Toombs’s. She writes: “We all have everyday experiences of the body as an oppositional force, as a physical encumbrance, as a material physical object – experiences which alienate self from body and which disclose the body as ‘uncanny’” (Toombs 1992: 101). These ex-
Further, we have encountered illness in others. Most of us have seen severe illness in the faces and bodies of those close to us, friends or family members, some of whom we may even have taken care of. This is particularly salient in the case of Peter and Susan. Like in many other standard cases of PGD for single gene disorders, the couple seek the procedure because of a family history of the disorder in question – in this case especially in the light of the suffering and death of Susan’s dear cousin Alex.

However, our experience of the badness of severe disease goes beyond personal life histories. It is also sustained by the practice of medicine (recall here the intersubjective, historical nature of practices). By way of medicine’s long history of grappling with illness, we are aware of its severe forms as general evils, which mar the lives of all that they befall, not only as individual tragedies. And we are aware of curing and preventing such disease as genuinely beneficial, as universally enabling with respect to the good life. This practice perspective is important because it reveals the truly shared character of the experience of severe illness. It allows us to transcend the limited viewpoint grounded in our own bodily experience and our concrete encounters with illness in those close to us. We can correct for the easily biased, and potentially instrumentalising, judgments that reliance on such a viewpoint makes us susceptible to by tapping into a human experience largely shared across historical and sociocultural contexts.

My suggestion, then, is that while parents-to-be have little to rely on when making decisions for their yet unborn children, their choices need not altogether lack guidance. Susan and Peter and others in similar situations know that diseases of sufficient severity, such as Duchenne muscular dystrophy, are evils for all who suffer from them. This is the kind of rough, experience-based generalisation to which one may justifiably take recourse when there is nothing more specific to go by. So the Aristotelian account of practical wisdom, with the help of which the precariousness of decisions concerning the yet un-

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periences (one example is irregular heartbeat after having had too much coffee) "point towards the deep sense of bodily alienation and loss of control which is intrinsic to illness-as-lived" (ibid.). In her phenomenological analysis, the ubiquity of such experiences is crucial because it makes possible a shared understanding between physician and patient regarding the latter's illness (ibid.: 87-8, 98-102).
born was brought out, also indicates a way to escape some of that precariousness: by relying on a univocal, shared illness experience.\footnote{One way to put this is to say that that medicine, despite its salient technical and scientific aspects, retains some of its phrnetic character when it is genuinely concerned with relieving illness or suffering. What distinguishes my argument from other expressions of that general idea (e.g. in Gadamer 1996 and Brassington 2007) is the heavy emphasis on a shared illness experience. I believe that such emphasis is justified: \textit{phronesis} may, as we have seen, be characterised precisely as an ability to correctly draw on experience.}

\textbf{The Enhancement Cases: Future-Directedness and Experience}

Cases of selection or enhancement of non-disease traits differ in two ways from the case of selection against severe disease just discussed. First, one important parental difficulty described in Chapter 7 is much more salient in such cases. We saw there that parental power is particularly likely to go astray when it is concerned with socialisation, because of the multitude and pervasiveness of interests and social norms that demand that the child be shaped in particular directions. Many (but not necessarily all) choices of non-disease traits reveal a certain socialising future-directedness not found in selection against severe disease. In terms of the distinction between caring for and raising children, they embody at least some aspects of the latter parental task. This makes such choices more exposed to the pressure from interests and norms concerning socialisation, and more vulnerable to their instrumentalising potential.\footnote{In a discussion of parental decisions about surgery for children born with anatomical anomalies, Hilde Lindemann emphasises this danger: “The decision is relatively unproblematic, from an ethical point of view, in those cases where the aim of the surgery is to \textit{preserve} the child from physical harm or to \textit{foster} the child’s growth. […] It is when parents request surgery for the purpose of \textit{socialising} their children that they are at special risk of using their power irresponsibly.” (Lindemann 2006: 178, emphasis in original) This is because, she explains, the latter type of request is particularly likely to be influenced by a number of “master narratives” – widely circulated stories that express deeply entrenched, taken for granted conceptions about how things are supposed to be – that easily shape our thinking in morally dubious directions. Lindemann’s discussion has been very helpful for this particular part of my argument.} Second, that kind of choice cannot escape uncertainty and the danger of instrumentalisation that it involves by relying on as solid an experiential background as selection against severe disease. The experience to which one might appeal for judgments concerning the goodness of non-disease traits is of a different kind than the experience of illness by virtue of
which we all know that its severe forms inescapably constrain the lives of all afflicted.

Let me illustrate the first point, about future-directedness, by returning again to the cases described in Chapter 1. In the sex selection case, Anna and Michael already have two daughters and long for a son. They are not at an increased risk of passing on a genetic disorder, and neither of them has fertility problems. They decide to use a technology called MicroSort to increase the chances that Anna gets pregnant with a boy. It is important to note that in this case, as in any other case of sex selection for so-called social or family balancing reasons, sex itself, understood as a biological property (or set of properties) is of little interest to the couple. They choose for socially impregnated characteristics expected to go with that property (or set of properties), i.e. for gender. (Rothman 1998: 205, Davis 2001: 101) The couple’s wish for a boy involves a gendered conception of the ideal brother-sister and father-son relationships, and their choice is a choice of a child of the type with which they expect that the father and sisters will be able to have such relationships. The choice is motivated by norms that indicate certain places within a social world for boys and girls, brothers and sisters, sons and fathers, respectively. Indeed, absent such norms the choice makes little sense.

If we turn to the genetic enhancement case, a similar, though perhaps less conspicuous, future-directedness is involved there. In that imaginary case Carl and Patricia have a child, Nancy, by means of IVF. The embryos they select for transfer are not only screened for chromosomal abnormalities, but are also provided with the genetic predispositions for increased disease resistance, emotional stability and height. Norms concerning these traits may not be as pervasive and powerful as gender norms (although they certainly have gender dimensions – “real men” are for instance supposed to be tall). But the couple’s choice to enhance them still involves a conception of a society – a particularly competitive one – in which they are important. Height and emotional stability (I leave disease resistance out of the discussion for the moment) are enhanced in order to prepare Nancy for – or more provocatively put, make her fit within – that society. This is not to say that the parents attempt to direct her towards some particular way of life; the purpose seems rather to be to open up many possibilities. Nonetheless, their choice has a certain socialising quality, making it susceptible to the dangers involved in socialisation. This would also, I believe, be true of most other kinds of genetic enhancement that we can imagine.
Consider next the selection for deafness case. In that case, Jonathan and Sandra, who are both congenitally deaf and who both regard themselves not as disabled but as culturally Deaf, choose to have a deaf child by means of PGD. They want their child to be able to fully enjoy participation in the Deaf community with which they themselves so strongly identify. If genetic enhancements are subtly future oriented, this choice is overtly and consciously so. Its very purpose is the inclusion of the child within a certain social group. Unlike in the other cases, the norms involved are not the dominant norms in society as a whole, but rather run counter to them. But their influence on the choice is not for that reason less powerful, and the choice not less geared towards socialisation (but even arguably more so). This makes it as precarious as sex selection and genetic enhancement in the sense presently discussed, as amenable to the kind of instrumentalising attitude that socialising interventions in the absence of a concrete child are particularly prone to.

Let us stick with this case in order to illustrate the second point above, about experience. Now Jonathan and Sandra’s choice is certainly encouraged by their own highly positive experience of being Deaf, and they may also invoke a similar experience of many others in the Deaf community to support their choice. But that experience remains tightly bound to that particular community. Its sharedness is of a much more limited and contingent kind than the sharedness of the experience of severe illness. The view that deafness is a difference or benefit, rather than a disability, has little support outside of Deaf culture circles, and many deaf themselves disagree with it (Tucker 1998). This means, not least, that predictions as to whether it will be held by the child created are bound to be highly insecure (cf. Chapter 4).

If we turn next to genetic enhancement, are things not different in that case? Cannot Patricia and Carl invoke a very old, deeply entrenched and widely shared experience of enhancement sustained by the practice of parenting to support their choice of increased height and emotional stability in their future child? (Again, I postpone discussion about disease resistance). Now, it is certainly true that parenting embodies such an experience. As we have seen, parents are – and presumably have always been and will always be – supposed to do what is best for their children by cultivating them in various ways. But this experience offers little guidance with respect to the enhancement of particular traits in a future child. The step from a general parental commitment to child-shaping to the decision to shape
this or that non-disease trait is problematic. This is because such traits are generally much more contingently related to the good life than are severe diseases. It cannot be concluded from whatever positive experience the parents may have of such traits, or from whatever value their culture and society attach to them, that they are as such conducive to flourishing with anything near the certainty with which it can be concluded from our shared experience of illness that its severe forms undermine the flourishing for all who suffer from them.

Previous experience offers particularly poor guidance when it comes to the enhancement of many traits that have a quantitative dimension. Height and emotional stability are good examples. We can judge with some confidence that the low ends of the normal distribution curves for these traits are undesirable. Being very short is presumably associated with various disadvantages, and being very emotionally unstable (bordering perhaps on bipolar disorder or some other form of mental illness) is certainly not a good thing. At the same time, however, we recognise that one may be too tall and too emotionally stable. But how much is too much with respect to these traits? There seems to be no gold standard here. Between the uncontrover-

sially unfavourable extremes there is a vast territory of relative normalcy, where there is little else than highly socio-culturally contingent preferences to go by for our judgments concerning good and bad.

In short, the experience that parents might invoke to guide them in selecting or enhancing non-disease traits is not comparable in certainty and generality to the experience of severe illness described earlier. It is neither as firmly grounded in our embodied human nature, nor as widely shared as that experience. Hence it remains more bound to their own or their group’s perspective, or to perspectives that prevail in their society and culture. It cannot, then, be invoked to correct for the lack of moral knowledge and proneness to instrumenta-

lisation that pertain to choices concerning the yet unborn, because the essence of these limitations is precisely such a reliance on familiar perspectives. In enhancement cases the parents are not only to begin with more susceptible to instrumentalising tendencies than in cases of selection against severe disease. They are also less able to draw on the experiential resources needed to counter such tendencies.

This, I submit, explains why we are justified in believing that what I have called enhancement uses of reproductive technologies are morally different from – more problematic than – both using such technologies to avoid having children afflicted by severe diseases,
and shaping already existing children by environmental means. There are good reasons to be morally concerned about uses of the kinds illustrated in the so-called enhancement cases (cases b, c and d) that are not also reasons to worry about uses of the kind illustrated in the case of selection against severe disease (case a) or about parental and other measures aimed at improving or cultivating children that already exist. I hasten to add two important qualifications to this claim, however.

**A Note on Medicalisation**

My argument so far has been directed against selection and engineering of non-disease traits. But properly understood it also identifies problems involved in certain forms of selection against disease. Part of what makes choices of the kind discussed throughout this dissertation troubling is that they are particularly susceptible to pressure from, *inter alia*, powerful social norms. Some of our most powerful contemporary norms concern health and disease. Many have described an ongoing *medicalisation* process – a constant tendency to push the boundary between health and disease, so that an increasingly wide range of traits and behaviours come to fall under the latter label – deeply rooted in salient features of Western culture and society, and fuelled by strong commercial interests (Elliott 2003).

In the light of medicalisation we should be concerned about selection against mild diseases and mere genetic *susceptibility* to disease, for much the same reasons that I have suggested we should be worried about selection or enhancement of non-disease traits. First, that kind of selection is more likely than selection against severe diseases to point in socialising directions. Take as an example selection against genetic susceptibility to obesity.\(^\text{141}\) Such a choice is highly likely to be informed by a concern that the child fit well within a world where obesity carries a high social disvalue. It has a clear future-directedness that makes it easily fall prey to norms, concerning health and disease as well as appearance, that threaten to shape our thinking in instrumentalising directions. Second, the appeal to a genuinely shared human experience of the badness of severe illness

\(^{141}\) This is example is not mere speculation. There are clinics that offer genetic tests that determine predisposition for obesity. One example is the Canadian company GeneOb (http://www.geneob.com/services.html, accessed 3 July 2008). Presumably, these tests are intended for adults, but there are no technical reasons why they could not be used on embryos too (Baruch et al. 2004: 3).
becomes strained in cases like this, when it is unclear that the condition selected against in fact results in such illness. Generally speaking, the less severe the condition selected against, the more likely is the choice to reflect powerful medicalising norms rather than a concern to avoid certain suffering and incapacitation, and the more likely is it to contribute to reinforcing such norms.

**Innocuous Enhancements?**

So my argument does not endorse selection against *all* forms of disease. Does it give reason to disapprove of *all* kinds of selection or enhancement of non-disease traits? What about “general-purpose means” (Buchanan et al. 2000), i.e. traits that are purportedly useful for all ways of life? Here too there is reason for caution. Now I am not suggesting that there are no such traits. My point is rather that we should be cautious about our ability to identify which traits classify as such highly general goods for those who are yet unborn with sufficient accuracy to genetically enhance or select those traits. Such judgments, I have suggested, are exceedingly abstract and uncertain, as well as unavoidably prone to distortion.

But could there not, after all, be some kind of enhancement that escapes these objections? I have deliberately postponed discussion of increased resistance to infections (illustrated in the genetic enhancement case), because it just might be such an enhancement. To some extent at least, such an intervention can appeal to the same shared illness experience as selection against severe genetic disease. It could be argued that the ultimate purpose of the two kinds of intervention is the same: to avoid conditions that we are all aware of as genuinely harmful. Also, enhancement of disease resistance appears to lack the future-directedness that marks many other kinds of enhancement, for instance of emotional stability and height. Like selection against severe diseases it seems more concerned with preservation and protection, less with shaping. If this is right, it is also less vulnerable to the potentially instrumentalising pressure from norms and interests regarding socialisation.

These reflections are admittedly not conclusive. It is for instance debatable whether the shared human illness experience offers as secure guidance here as in the case of selection against certain and severe genetic disease. But it is clear that the argument that I have mounted against selection and enhancement of non-disease traits in future people need not strike at *all* conceivable such interventions.
Rather, it provides us with a way of reflecting about the morality of different interventions – a way that is likely, but not certain, to pick out enhancements as problematic.

Two Objections

I shall now consider two objections to my argument. Properly understood and responded to it should be clear that they do not defeat the argument, but rather help to bring out more clearly some of its nuances and implications.

One-Sidedness and Non-Genetic Decisions for Future Children

The first objection is that my argument captures too much. Are not all choices made for someone yet unborn, whether by means of high-tech reproductive technologies or not, equally one-sided? And, except for selection against severe disease for reasons already discussed, are they not therefore all equally uncertain and equally prone to an instrumentalising view of that person? Have I not then ruled out a host of perfectly normal decisions that parents make for the sake of their children-to-be – think of moving to a safer neighbourhood or buying baby clothes – as equally morally problematic as enhancement uses of reproductive technologies? If this is right, then surely my argument appears seriously flawed.

I have two responses to this objection. Let me first emphasise that I have not suggested that one-sidedness itself makes the choices that I have criticised precarious. The problem is rather that one-sidedness makes these choices highly uncertain and easily shaped in instrumentalising ways by forces at play within medicine and parenting, and weighing on these practices from the outside. The decision, say, to move to a safer area is certainly one-sided, but it is not subject to some of the most important of these forces. The pressure to take a technical or biological view of the other endemic to medicine, for instance, does not bear on such a choice, because it does not depend on medical science and technology for its exercise. Also, the choice is

142 Another way to put this objection would be to say that, in addition to the two distinctions that I have discussed at length, there is in fact also a third, between genetic and non-genetic choices concerning future children, which I have not been able to account for. Ingemar Nordin, Bertil Strömbäck and David Wasserman have all raised some version of this objection to my argument (personal communication).
made for the sake of protecting the child from harm rather than shaping it in any particular way and thus not susceptible to the dangers involved in parental decisions with a more socialising orientation.

Further, like selection against severe disease, but in a different way, choices of this kind often encompass an experiential, phronetic dimension that allows them to escape some of the uncertainty pertaining to one-sided interaction. The point here is not primarily that they are informed by a widely shared previous experience, though that may also be the case, but rather that they leave room for future experiential adjustment. They are typically correctable in a way that a choice of a particular genetic make-up is not. I should emphasise right away that I am not subscribing here to genetic determinism. I am not denying that selected or engineered genes also need continual environmental input if they are to be expressed in desired ways, or that the impact of environmental measures on a child may be equally profound and irrevocable. My claim here is not so much about the relative weight of genetic and environmental factors in shaping us into who we are, as about how – with what view towards the future – genetic and environmental choices are plausibly made.

Parents can decide to move somewhere else should the new neighbourhood turn out not to be as child friendly as they had expected, or replace the clothes should they not fit the baby, and this provisionality and fallibility is integral to such choices and the type of deliberation that leads up to them. Making choices of this kind typically involves a preparedness to revoke them, or at least to make later adjustments in view of new circumstances. But when parents choose (part of) their child’s genetic make-up there is something that they cannot honestly expect to adjust along the way (barring very advanced and very extensive somatic genetic modification): the genes themselves and whatever contribution to phenotype they may make across all environments that they can provide the child with.

What I am suggesting is that environmental choices on behalf of the yet unborn tend to have a tentative, flexible, piecemeal quality that makes them amenable to experiential correction. Or this is at least what they should be like. This brings me to my second response to the objection: environmental choices that parents make for their yet unborn children may also be morally problematic. One reason may be precisely that they are not open for experiential correction in the way just described. Consider a drug or a dietary supplement that affects foetal development in some very specific and predictable way, and that thereby allows would-be parents to shape with some precision in
such characteristics as emotional stability and height in their child. Such an intervention would be environmental in nature, but it would lack the tentative, open-ended, phronetic quality characteristic of many other such interventions. Also, it would be problematic for all the other reasons that I have suggested that genetic interventions with the same aim are problematic.\footnote{Recall that since my argument is not consequentialist it does not make any difference that the environmental interventions of the kind discussed here are Same People Choices, while many genetic choices are Same Number Choices. That is, it does not matter to my argument that the same child will exist whether or not the environmental intervention is made, while (presumably) different children will exist depending on whether or not the genetic intervention is made. From the point of view of my argument the two kinds of choice are analogous. For more on why this is so, see Chapter 3.}

These reflections bring out something important: nothing in the argument that I have presented suggests that genetic interventions are problematic \emph{simply} because they are genetic. Nor are they problematic \emph{simply} because they involve advanced medical technologies. In my argument about reproductive technologies, we can find other reasons than those having to do with experiential adjustment, why more ordinary parental choices for future children may be problematic, perhaps more so than we sometimes recognise. Consider for instance the decision to enrol a future son in a prestigious military or sports school, or a future daughter in a prestigious ballet academy. Such choices can certainly be revoked later, as the parents may well be aware of when they make them. But are we not sometimes worried about the way that they are shaped by gender norms and parental ambition? And is it not something about how these impulses encourage an instrumental way of relating to the future child – a perspective that makes the child appear too much as thing to be subsumed under given gender patterns and parental projects and not enough as a distinct other – that worries us?

So I concede this much to the objection: much of my argument does apply to ordinary (and not-so-ordinary) non-genetic decisions that parents make for their unborn children. But this does not imply that all such decisions are morally on a par with genetic selection or engineering of future children’s non-disease traits, though some perhaps are. Rather, it means that the argument may shed new, sometimes critical, light on ordinary parenting. Surely this is a strength rather than a defect.
A Shared Intuition?

The second objection targets a tension between two recurrent strands of my argument. On the one hand, from the outset of my discussion my purpose has been to explain and test the justifiability of a moral intuition assumed to be widely shared. On the other hand, my articulation and defence of that intuition has been presented as a distinctly non-consequentialist alternative to the consequentialist modes of reasoning that dominate discussions about the ethics of reproductive technologies. It may seem that the latter ambition can be met only at the cost of sacrificing the former. How can a non-consequentialist account aspire to explain an intuition shared by many or most, presumably consequentialists too? This difficulty should not be exaggerated. I believe that an important part (but nonetheless only a part) of my account should be accepted across the board of ethical theories.

Let me explain this. All ethical precepts – we tend to call them principles, though nothing hangs on the term chosen – face the same task of application that Gadamer assigns to phronesis. They must be acted upon in concrete circumstances, but exactly how is never completely settled by the principles themselves. As Onora O’Neill (1987, 2001) convincingly argues, principles necessarily underdetermine actions; they are not algorithms. Hence, there is always a gap between the principle and the act, a gap which must be “filled by judgment” (O’Neill 2001: 18). Kant was aware of this, as should any reasonable utilitarian be: in real life practical situations one can never hope that the precise amounts of utility that all alternative actions would create are simply givens (O’Neill 1987: 59). And leading proponents of “principlism” in bioethics seem to agree that the correct application of principles is not given with the principles themselves (Beauchamp & Childress 2001: 34 and passim).

The point is that whatever ethical precept (whether consequentialist or not) we take as guide for our actions, we need something more than the precept itself to bridge the gap between the general and the particular, between precept and act. From an Aristotelian perspective, this role is of course played by phronesis. I do not expect deontologists and utilitarians to find congenial all epistemological, psychological and normative aspects of that complex concept. But they do need to recognise one important insight that it captures: that moral action – in the sense of moving from precept to act – requires extensive and highly contextual knowledge. If this is right, they should to some extent at least share the concern about reproductive
8. Getting to the Roots of the Intuition

...technologies discussed in this chapter, because we typically do not have that kind of knowledge about future persons. They could agree with my claim that we would often know too little to get things right when selecting the characteristics of such persons. However, the missing knowledge would probably be of a different kind: information about future people and future circumstances rather than hermeneutical, specifically moral knowledge.

If utilitarians and deontologists can be brought to accept part of my diagnosis of the problem posed by reproductive technologies, this of course implies neither that they should accept all the details of my analysis, nor that they should accept the (partial) solution – the recourse to experience – that I have suggested. But something is needed to remedy the lack of knowledge described. If not experience, then what?

Tying up a Loose End: Sex Selection and the Right to an Open Future

I have suggested that consequentialists should accept parts of my non-consequentialist argument. Now I shall outline how that argument can also contribute to deepening consequentialist, harm-focused analyses of the ethics of reproductive technologies. In Chapter 4, I concluded that the concern about the child’s right to an open future might make sense of what is troubling about selection for deafness and sex. However, I suggested that in the latter case the open future argument needed to be supplemented by an account of parental attitudes and the parent-child relationship. In this and the previous chapter I have outlined such an account, which might go some way towards substantiating that argument.

In particular, my remarks about parenting and instrumentalisation might underscore Davis’s suggestion that parents who select their child’s sex are likely to “view the child primarily through its gender” (Davis 2001: 102), to the detriment of its future freedom. There is, I have argued, an ever-present temptation in parenting to adopt precisely this kind of perspective on the child, to conceive of it solely from the point of view of influential societal (not least gender) norms and one’s own ambitions and perceptions of the good. And this temptation is particularly hard to resist when making choices of this kind, because they take place outside of any real relation to a concrete child. Not only does the parents’ willingness to go through
the costly, burdensome and uncertain process of sex selection indicate that their gendered expectations on the child are strong (ibid.: 100-1). They are also in a situation where they are particularly prone to act on, and reinforce their adherence to, the norms underlying such expectations. So I am suggesting that those who, like Davis, are worried about how gendered expectations might affect the open future of the child selected for its sex might find further reason for their concern in the argument that I have developed.\textsuperscript{144}

Note, in addition to this, that if my argument is plausible it may give us reasons to worry about the effects of sex selection on the open future not only of particular selected children, but also of children more generally. I have already suggested that a widespread use of reproductive technologies for the purpose of choosing non-disease traits may contribute to making parenting increasingly a matter of parental and societal concerns and priorities (however child-regarding these may be), at the expense of responsiveness to concerns arising from the child’s perspective. This could presumably make parents generally less likely to take seriously the future freedom of their children. While all enhancement uses of reproductive technologies bring with them this danger to some extent, sex selection illustrates it particularly well, because in that case there are unusually pervasive norms that push in the same direction. Parental expectations and social norms may reinforce each other, and thus together create a heavy net burden on children to conform to narrow gender standards. It is not far fetched to believe that the outcome on the societal as well as the individual level may be a diminished respect for the openness of children’s futures.\textsuperscript{145}

\textbf{Concluding Remarks: On the Nature of the Distinction}

Let me briefly recapitulate my account of the intuitive moral distinction discussed throughout this dissertation. Choices concerning the

\textsuperscript{144} If this suggestion is to get off the ground one has to accept the impersonal conception of harm on which the open future argument in this type of case rests. One has to accept, that is, that it makes sense to blame the parents for not respecting their child’s open future even though some other child will exist if they act differently. Again, as we saw in Chapter 3, this may be questioned.

\textsuperscript{145} For a lengthier and in some ways similar discussion about the combined effect of gender norms, parental expectations and reproductive technologies on selected or engineered individuals as well on as society, see Barclay (2003).
characteristics of future persons – choices of the kind that reproductive technologies make possible – are marked by a peculiar one-sidedness. They cannot be in any way attuned to those particular persons, but inescapably proceed wholly from the initiative of the choosers. This means that they are constituted by a mode of interaction where moral deliberation is severely incapacitated. An adequate understanding of the other’s flourishing and how best to promote it – the kind of knowledge required to make wise medical and parental choices – is only fully possessed in an encounter with a concrete other. Such an encounter is clearly absent when choices are made for future persons; this is why such choices are very different from parents’ shaping of their already existing children. The absence of a concrete other is particularly troubling because it makes the choices susceptible to instrumentalisation: the child is all too easily made the sole object of parental discretion, social norms and technical reasoning. This instrumentalising stance does not only manifest itself in the relation between particular parents and particular children, but may also have repercussions for how we think of and practice parenting quite generally.

The fact of one-sidedness does however not by itself account for the difference between selection against severe disease and selection or enhancement of non-disease traits, because it is an inescapable feature of all choices concerning the yet unborn. The difference is rather that the former kind of choice can call upon a shared human experience of the universal harmfulness of severe illness in order to compensate for the lack of moral knowledge, and correct for the potentially instrumentalising biases, that one-sidedness entails. The same kind of highly general experience cannot be invoked to guide choices of the latter kind. These choices are also to begin with more prone to instrumentalisation, because they are more likely to be motivated by socialising norms and interests.

I have suggested that thus explicated, the intuition that using reproductive technologies to select or enhance non-disease traits is morally different from both using these technologies to select against severe disease, and environmental enhancement is intelligible, and that we are justified in having it. There is indeed a moral distinction to be made between the case of selection against severe disease and the other cases described in Chapter 1. This raises an important question. Are we not with this simply back where we started, with the very same intuition that motivated the whole discussion in the first place? And has then anything really been accomplished? We are not
simply back with the intuition. Rather, through the discussion in this dissertation there has emerged a more precise and in some respects qualified version of the double distinction that the intuition captured. I shall close by a few further remarks on the nature of this distinction.

To begin with, it should be clear that I have not attempted to draw a moral line between diseases and non-disease traits per se. The relevant difference is rather between conditions that we know (in the experiential sense described earlier) severely undermine the pursuit of a good life for all who suffer from them, and other traits. My conclusion thus comes close to Habermas’s support for “avoiding evils which are unquestionably extreme and likely to be rejected by all” (Habermas 2003: 43). My reasons are however different. I am not claiming that we can safely presume the consent of the future child for such interventions, but rather that we can rely on a solid human illness experience. That experience may be invoked for selecting against some, but not all, forms of disease, and I have left open the possibility that it may also give us sufficient guidance for a very limited class of enhancements.

My distinction has certain notable advantages over an unqualified distinction between avoiding disease and other uses of reproductive technologies, and more generally over any attempt to draw a moral distinction with direct reference to some concept of disease. It is

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146 Resting the moral permissibility of the use of reproductive technologies on the presumed consent of those that such technologies bring into existence is untenable. This is so partly for reasons having to do with the Non-Identity Problem discussed in Chapter 3: in Same Number Choices, we would be able to presume the future child’s consent for almost any kind of intervention. This is because all alternatives to the intervention would entail the child’s non-existence. But a model of presumed consent is problematic even for reasons unrelated to this problem (and thus questionable in Same People Choices, too). If my suggestion that moral deliberation is precarious when it comes to making choices for those who do not yet exist makes sense, we should be wary about our ability to accurately presume their consent. It has also been suggested that the consent of the future person may be manipulated by the very intervention consented to (Wasserstein 2003: 101).

147 Few are upon reflection likely to defend a truly unqualified distinction here – a distinction that makes it morally permissible or obligatory to use reproductive technologies to avoid all disease, and morally impermissible or non-obligatory to use them for any other purpose. Some have however made more careful use of disease concepts in this context. See in particular the attempt by Buchanan et al. (2000: ch. 4) to use Boorse’s (e.g. 1977, 1997) health theory in order to establish for policy purposes a well demarcated class of genetic interventions, whose moral sanction is derived from their protecting fair equality of opportunity. This arguably raises both the problems that I mention in this paragraph. Insofar as even a
less at the mercy of medicalisation, i.e. less likely to shift as the category of disease expands in the wake of scientific discoveries and the development of new medical technologies. It is also less vulnerable to various conceptual critiques directed against theories of health and disease. This is, again, because the distinction does not rest on a disease concept in any direct way, but rather on the epistemological claim that in a situation where moral deliberation is particularly difficult, we can nonetheless safely make assumptions about the negative impact of some diseases on the flourishing of all that they afflict.

Note how this allows me to respond to another important objection (mentioned in Chapter 2) frequently directed against attempts to draw a moral distinction between using reproductive technologies to avoid disease and using them for other purposes, namely that diseases as such do not matter morally. Just as we have reason to avoid diseases because of their negative impact on well-being, the objection goes, we have reason to welcome enhancements because of their positive impact on well-being.148 In response, I do not deny that an enhancement might in some instance contribute more to someone’s well-being than the alleviation of some not very severe disease. I have not suggested that the difference between the two kinds of intervention lies in how beneficial they in fact turn out to be. I have argued, instead, that there is a crucial difference as regards the certainty with which we can judge the benefit to future people of enhancements as

Boorsian conception of disease is expandable in the wake of instrumentalisation (whether or not one thinks this is the case will depend on to what extent one believes that natural science and its concepts are cultural phenomena, subject to cultural change – a much debated issue), or insofar as conceptual critiques of Boorse’s theory (e.g. in Fulford 1989 and Nordenfelt 1995, 2000) are sound, such an attempt at demarcation is less robust than its proponents believe. But presumably it is not susceptible to the objection described in the next paragraph, since the moral weight in the argument is pulled not by the concept of disease, but by a Rawlsian conception of equal opportunity.

148 This objection can be summed up by the claim that “the overwhelming moral imperative for both therapy and enhancement is to prevent harm and confer benefit” (Harris 2007: 58, cf. Kitcher 1996: 208-12, 216, Savulescu 2001: 419-21 and Glover 2006: 75-6). I am in fact at odds with those who raise this objection in another way than the one outlined later in this paragraph. With the discussion of the nature of health in Chapter 7 in mind, I believe that the claim that what makes diseases bad is their negative impact on happiness tout court is too simple. Severe diseases certainly make people unhappy, but in ways that this claim obscures: they rob people of their capacity to pursue their own happiness. This makes them different from (and arguably worse than) many other things that make us unhappy.
compared to interventions aimed at avoiding severe diseases. In enhancement cases such assessments are too abstract and too easily muddled.

Further, I want to emphasise that the distinction that I am advocating is less than categorical. By this I mean, first, that the moral difference that I have described between different uses of reproductive technologies is not dichotomous, but admits of degrees. The uncertainty pertaining to action in the absence of a concrete other marks all uses alike. But the forces that threaten to push such action towards instrumentalisation – strong social norms, biological reductionism, parental convictions and paternalist impulses have been my examples, but we can think of others too – may vary in number and magnitude, thus making that uncertainty more or less precarious. And the shared human illness experience by which the uncertainty can be managed, gives clearer guidance in some cases than in others. It can be rather safely appealed to in cases where the illness that one hopes to avoid is severe and certain to occur (e.g. Duchenne muscular dystrophy), less so in cases where it is less severe (e.g. Down syndrome) or less certain to occur (e.g. breast cancer), and even less in cases where it is neither severe nor certain to occur (e.g. obesity).

The difference between genetic enhancement cases and environmental enhancement also turns out to be less stark than it might have appeared on an intuitive level. I have argued that a responsive stance towards the child is always a possibility in the latter type of interaction, but such interaction may of course also proceed wholly one-sidedly (recall again the business executives in Chapter 5). Here too one-sidedness widens the scope for the instrumentalising tendencies to which parenting easily succumbs, and, like in genetic enhancement, the nature and strength of these tendencies vary between cases.

By calling the distinction that I have defended less than categorical I also mean that it could not aspire to establishing an absolute moral constraint. It should be clear, both from what has been said already and from the general orientation of my argument, that it does not provide us with some single criterion by which a bright moral line between different types of intervention can be drawn.149 Nor does it in

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149 From an Aristotelian-hermeneutical perspective the search for such criteria would of course be quite mistaken to begin with. It would amount to attempting to find a techne for ethics – a theoretically founded method in principle capable of guaranteeing success in practical life – which in turn would reflect an inability to distinguish between the fundamental categories of poiesis/techne and praxis/phronesis.
any other way amount to ruling out some or all enhancement uses of reproductive technologies as categorically morally impermissible. One way to put this point is in terms of reasons. I believe that I have identified a set of reasons against genetically enhancing and selecting non-disease traits in future people. These reasons, which may vary in number—not all of them obtain in all cases—as well as in strength, have a pro tanto character. That is, they are always real reasons against such uses, but they may not be decisive in all cases; countervailing considerations may possibly outweigh them.150

This brings us back to my overall aim in this dissertation, to contribute to the debate over the question where the moral limits of using reproductive technologies to choose for or against certain characteristics of one’s future child are. I have delivered an answer to the question, but that cannot be the final answer. It does not amount to a full-fledged, all-things-considered analysis of the ethics of that kind of reproductive choice. Such an analysis (if possible at all) would have to take into account a range of further considerations. Some such considerations, like the moral status of the embryo, have been discussed in this dissertation. Others, like the impact of reproductive technologies on the women who use them, and their implications for social justice and for those who suffer from diseases and disabilities with genetic causes, have not.151 Due attention to such further considerations may give us reason to redraw or further qualify the distinction that I have defended.

So the distinction turns out to have a somewhat provisional character. Also, it is not perfectly clear-cut in the sense that it is not certain how it handles all cases that we can think of. This may strike some readers as unsatisfactory. My only reply is that the roughness involved here is perhaps not one that we can hope to ever fully smooth out. For, as Aristotle famously remarks, in ethics one can only

150 Here I follow Shelly Kagan’s (1989) use of the term ‘pro tanto reason’. Many use Ross’s (1988) language of prima facie reasons or duties to make the point that I have in mind. As Kagan (1989: 17) points out, this way of speaking invites the interpretation that the reasons in question merely seem to be reasons, but may turn out not to be. In order to avoid this unfortunate interpretation I choose to speak of pro tanto reasons instead.

151 These issues have all been subject to bioethicists’ attention. Questions of reproductive technologies and justice are discussed e.g. in Buchanan et al. (2000), their implications for women e.g. in Sherwin (1992) and for the disabled e.g. in Wasserman et al. (2005).
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expect “as much clearness as the subject-matter admits of” (NE 1094b12-3).
Summary

This study is a contribution to the bioethical debate about a range of new and emerging reproductive technologies. More specifically, it is an argument about the moral legitimacy of using such technologies for the purpose of selecting the characteristics of future persons. In Chapter 1 I begin to approach this rather large issue by outlining four cases that illustrate four different such uses, and to which I am to return continuously throughout the discussion in the dissertation. I put the cases into context by describing the technologies involved, as well as some of their basic scientific background and some bioethical policies surrounding them.

In the first case, a couple with a family history of a severe single-gene disorder use in vitro fertilisation (IVF) and preimplantation genetic diagnosis (PGD) in order not to risk having a child affected by the disorder. In the second case, a couple who already have two daughters and strongly desire to raise a son, too, use a technology called MicroSort to increase the woman’s chances of getting pregnant with a boy. In the third case, a deaf couple that regard themselves as members of a distinct cultural and linguistic community, rather than as disabled, choose to have a deaf child by means of IVF and PGD. The fourth case illustrates a type of choice that is currently not possible. In that case a couple choose to alter the genetic make-up of in vitro embryos in order to have a child with the genetic predispositions for emotional stability, above average height and increased resistance to infections.

Chapter 2 is dedicated to a moral intuition supposed to be triggered by the cases, namely that there is something troubling about would-be parents’ choices of non-disease traits – like sex, deafness, height and emotional stability – in their future children. More specifically, the intuition captures two moral distinctions, both of which have been defended as well as strongly criticised in bioethical debates. The first distinction is between using reproductive technologies to select or enhance non-disease traits and using them to avoid severe diseases, and the second between the former type of use and the shaping of non-disease traits in already existing children by environmental means, like education. I pose two questions that the re-
mainer of the dissertation is dedicated to answering: how is this intuitions to be understood, and are we justified in relying on it? I defend the idea that while we should not rely uncritically on our moral intuitions, we should sometimes take them seriously. I also specify how I am to go about trying to arrive at a more precise understanding of the intuition and to assess whether it is justified, namely by testing it against ethical principles in a back-and-forth movement between principles and particular judgments often referred to as reflective equilibrium.

In Chapter 3 I argue, first, that the intuition cannot be made sense of by reference to any position on the much-debated question of the moral status of early embryos. If embryos have moral status, there is reason to be concerned about all uses of reproductive technologies that involve their destruction, regardless of whether the purpose is to avoid disease or to choose some non-disease trait. And conversely, if embryos lack moral status their destruction as such is unproblematic, again regardless of the purpose.

In Chapter 3 I also dedicate considerable attention to a much-discussed peculiarity of many choices concerning future people, including most or all of the choices illustrated in the four cases, namely that depending on how one chooses different people will exist. This makes ethical principles concerned with how the lives of particular individuals go problematic to apply to such choices, which also means that the intuition under discussion cannot be explained by any such principle. The problem with parents that choose to have a deaf child, for instance, cannot be that they harm the child, or fail to benefit it or to respect some right that it has. The child could not be better off as the result of some alternative choice, nor could an alternative choice better respect any of its rights, because all alternatives entail that some other child (if any) would exist instead.

There are two ways out of this so-called Non-Identity Problem, and correspondingly two different ways to approach the intuition. The first strategy is to appeal to principles that do not judge the right- and wrongness of actions by their effects on particular persons, but that allow comparisons between the effects of different courses of action on the different persons that they would cause to exist. This makes it possible to say that parents act wrongly when they bring a child into existence, even if the child is not worse off than it could have been, if it is worse off than some other child that they could have had instead. This is a common approach in discussions about the ethics of reproductive technologies, but it has highly counterintuitive
implications for certain other types of choice. These implications add to the appeal of the other strategy, which is to look beyond the unspoken consequentialist assumption that what is morally salient about reproductive choices is how they affect the children that they bring into existence. On this non-consequentialist strategy, one has to look to the parents – their motives, character traits and so forth – rather than to the children, in order to explain the intuition.

In Chapter 4 I pursue the first of these strategies. I pose the questions whether and how choices like those illustrated in the four cases might make the children that are created worse off, as compared to other children that could have been created instead. More particularly, I discuss whether the choices might make those children less free, or autonomous, in some sense or other of those terms. After looking at some influential approaches to the concept of autonomy, I argue that it is implausible that selecting or engineering some particular non-disease trait in a future child would undermine that child’s autonomy. The choice would usually leave intact the capacities that these approaches pick out as crucial to autonomy, and it is unlikely that it would amount to the kind of influence (for instance coercion) that they identify as making actions non-autonomous.

However, concerns about how reproductive technologies affect those that they help create are often not about autonomy in any of the senses that the above approaches intend the term, but rather about freedom in the sense captured in the idea that children have a “right to an open future”. Thus understood, the concern is that some of the opportunities of the created children might be restricted, that the parents’ choices may make it impossible or exceedingly difficult for them to pursue certain ways of life. While I grant that this has some plausibility when it comes to selection for certain traits, like deafness, I also suggest that it fails to capture what might be problematic about the selection or engineering of many other non-disease traits. In some cases – sex selection for instance – it might explain what the problem is, but only if supplemented by a richer account of parental expectations, the impact that such expectations have on children, and the parent-child relationship quite generally.

The upshot of the discussion in Chapters 3 and 4 is that the broadly consequentialist approach considered there, focused on harms and benefits to chosen children, does not adequately make sense of the double moral distinction that the intuition captures. The subsequent chapters constitute an attempt to offer an alternative,
non-consequentialist account of the intuition, an account that more systematically considers the role of the parents that make the choices.

I begin elaborating that alternative by considering, in Chapter 5, the concept of instrumentalisation. I suggest, first, that the traditional Kantian injunction against instrumentalisation, captured in the claim that humanity must never be treated as a mere means but always also as an end in itself, is of little help for clarifying the intuition. When applied to reproductive choices, that injunction easily collapses into either of two claims that have already been dismissed as unhelpful for that purpose: that the embryo has moral status, and that the autonomy of the child brought into existence should be respected. Also, there is something instrumental, in the Kantian sense, about all reproductive choices. This makes it difficult to use Kant’s conception of instrumentalisation to distinguish morally between different such choices.

In light of these problems I turn instead to Martin Heidegger’s philosophy of technology and Hans Jonas’s ethics of responsibility in order to attempt to dig out a conception of instrumentalisation inherent therein. I suggest that choices concerning the traits of future children, unlike parents’ interaction with their already born children, are characterised by something like the modern scientific and technological way of making sense of the world that so troubles Heidegger. Such choices are one-sided; they make the child appear to the chooser as something that is possible to shape wholly according to her own wishes, not as an independently self-revealing otherness to which her actions must be carefully attuned. I intend this as a characterisation of the type of relationship within which such choices are made, however, not as a full account of what might make them morally troublesome.

In an attempt to get at the moral salience of this way of relating to the child-to-be, I consider Jonas’s phenomenology of the moral response, outlined in The Imperative of Responsibility. I suggest that the one-sidedness described earlier also involves an element of non-responsiveness to the child, and that this attitude towards others in our interaction with them is something that we often have good reason to be troubled about. However, this is not to say that such an attitude is categorically morally wrong; in some cases it appears harmless or even appropriate. Also, the fact that all decisions concerning future children, not only the use of reproductive technologies to select or engineer their non-disease traits, seem to be one-sided makes it difficult to draw on that notion alone to explicate the intuitive distinc-
tion between such uses and the use of the same technologies for the purpose of avoiding disease.

In order to arrive at a more nuanced and convincing account of the moral significance of one-sidedness, I turn, beginning in Chapter 6, to some of the central themes of Aristotelian practical philosophy. I consider first the suggestion that such an attitude is at odds with some specifically parental virtue, like humility or a disposition to accept children the way they are, but ultimately decide against thinking of its moral salience in such terms. The claim that some character trait is a parental virtue does not in itself give us any precise, non-arbitrary way of telling which actions or attitudes on the part of parents are compatible with that virtue, and in what circumstances they are thus compatible.

I suggest that the Aristotelian concept of *phronesis*, or practical wisdom, might be more useful, and set out to characterise some crucial features of that multi-facett ed concept that in particular hermeneutical commentators have picked up and elaborated. To begin with, practical wisdom is not just another particular moral virtue, but rather an ability implicit in all such virtues that allows their possessor to correctly exercise them, by relying on previous experience while at the same time sensitively taking into account and responding to the particular difficulties that each unique situation presents. It is intimately connected to *praxis*, action, in the sense that it is only fully possessed in its practical exercise and not available in the form of a theory or an algorithm-like method.

*Phronesis* is also concerned with human flourishing, and I devote some attention to specifying more precisely how it is thus concerned. I suggest that the idea that human flourishing depends on practical wisdom or the moral virtues, as it is elaborated and defended by proponents of so-called neo-Aristotelian virtue ethics, needs further qualification. Most importantly, one must not lose sight of the rootedness of our flourishing in concrete, practical action. The good life is always a life of successful *praxis*. This means that if the concept of practical wisdom is to be useful for making sense of the moral salience of one-sidedness, one needs to pair it not with an account of the good life *tout court*, but with an account of how such a life is pursued in a particular practical context, and of the difficulties complicating that pursuit that the possessor of *phronesis* has to successfully meet.

In Chapter 7 I provide such an account of the context in which reproductive choices of the kind discussed in the dissertation belong, the practices of medicine and parenting. Drawing on the works of a
range of contemporary philosophers of medicine, I characterise that practice as aimed at restoring the patient’s health, in a holistic sense. More specifically, medicine is concerned with re-establishing the individual patient’s capacity of flourishing through her own actions, a capacity that her illness has disabled. That practice is also pervaded by various difficulties having to do with the asymmetry of power between doctor and patient, most importantly a paternalist tendency and a temptation to relate to the patient as a malfunctioning biological organism rather than as a person in need of help.

I turn next to parenting, the practice where reproductive choices find their ultimate purpose. Following different philosophers who have explored the parent-child relationship, I characterise that practice as having two quite distinct aims: taking care of the child’s immediate needs, and raising the child into an adult. Correspondingly, parents are concerned with their children’s flourishing in two different ways. First, they are responsible for their immediate flourishing as children. Second, they are responsible for promoting their future good adult lives in a way similar to that in which doctors are to promote their patients’ good: by making it possible for them to realise it for themselves. I characterise appropriate exercise of parental power as a matter of striking a balance between the rather different demands that a parent faces while simultaneously pursuing both these tasks. I also describe some of the ways in which that power may go astray, calling particular attention to the paternalist tendencies and external pressure from norms and interests concerning socialisation that parents-as-child-raisers are susceptible to.

Summing up this comparative account of medicine and parenting, I explicate an important similarity between them: practical wisdom in both practices is an essentially relational capacity. It is exercised in the encounter with a concrete other – an individual patient or an individual child – who poses a particular set of challenges that have to be responded to in particular ways. But when reproductive technologies are used to select a future child’s traits, there is as yet no concrete other to whom one can relate in this attuned and responsive manner. This helps bringing out the problem with the one-sidedness described in Chapter 5: it leaves little room for phronesis.

I begin Chapter 8, the dissertation’s final chapter, by elaborating further on this problem, returning to and integrating themes from the previous three chapters. I argue that not only are the choices that I discuss uncertain in the sense that they cannot rely on the particularised insight into the good life that is only possessed in concrete inter-
personal encounters. The absence of this phronetic, relational dimension of the choices also makes them especially vulnerable to tendencies to relate to the other in an instrumentalising way – as a thing fully at one’s own disposal – inherent in the inequality of power that constitutes the parent-child and doctor-patient relationship. The problem, then, is not one-sidedness as such, but the more full-blown instrumental attitude towards the child that it easily opens for. That attitude is, I suggest, not only a feature of individual reproductive choices, but has the potential of shaping the practice of parenting itself in an instrumentalising way.

This does not mean, however, that all choices concerning the yet unborn are equally uncertain and equally prone to instrumentalisation. Selection against severe disease escapes some of this precariousness by retaining an experiential quality characteristic of practical wisdom. Such choices can rely on a shared human illness experience, rooted in our embodied mode of existence and sustained by the practice of medicine. A similarly certain experience is not available to guide would-be parents in the selection or engineering of non-disease traits – like sex, deafness, height or emotional stability – in their children. These choices are also to begin with more likely to be shaped in instrumentalising ways by socialising norms and interests, because of their future-directedness, their concern with the adult the child will become.

I close by returning to the intuition with which the discussion began. I argue that the argument elaborated over the last four chapters of the dissertation makes that intuition comprehensible, and indeed morally sound. There are good reasons to be more concerned about using reproductive technologies to choose non-disease traits than about their use for the purpose of avoiding severe disease or about “environmental” child shaping. However, I also stress the limited and qualified nature of my defence of the double distinction that the intuition captures. In particular, I emphasise that I do not assign any moral weight to the concept of disease per se. I also point out that the moral considerations that my argument have identified, while important, may not always be decisive.
APPENDIX

Some Policy Implications

Consistent with the distinction made in Chapter 1 between moral and policy questions with regard to various uses of reproductive technologies, my discussion thus far has exclusively addressed questions of the former kind. However, in that chapter I also declared that I would discuss how my ethical argument might inform policies. I now turn to that question. Note that any detailed recommendation on some very specific policy issue would require a richer account than I am able to provide here of the institutional and legal, and perhaps also social and historical, context in which the issue arises. For that reason my suggestions will be of a rather general kind.

The Question of Prohibitions

In this dissertation, I have explicated what I believe is a legitimate and serious concern about the use of reproductive technologies for the purpose of selecting future children’s non-disease traits. I have suggested that such choices easily take on an instrumental character, and that they may contribute to shaping in instrumentalising ways how we think of and practise parenting more generally. How should that concern be responded to from a societal perspective? The first response that is likely to come to mind is quite simply the imposition of legal or other restrictions that prevent parents from making some of the choices that I have identified as problematic.

Much of the debate about policies on reproductive technologies has in some way or other revolved around that type of approach. The central question here is what uses of such technologies society may justifiably restrict access to, and conversely what uses would-be parents should be free to avail themselves of (free, that is, in the negative sense that their choice may not be interfered with, not in the positive sense that they have a claim on others to facilitate their exercising that choice). The discussion of that question typically follows a pattern with which we are familiar from Chapter 3: a presumption of reproductive freedom, limited by the harm principle. On this outlook, would-be parents should be allowed to use reproductive technologies as they please, provided that they do not harm others, in particular

Clearly, my argument cannot contribute to this debate on its usual terms. From the outset the debate is framed in a way that firmly dictates the shape a contribution might take. The case for prohibiting a particular use rests on the identification of some tangible harm, and the case against prohibition consists in showing that no such harm is likely to ensue, or that alleged harms are not sufficiently weighty to justify limiting parents’ freedom. My argument does not trade on a notion of harm. I have argued against certain uses of reproductive technologies, but not on the grounds that they cause harms, in either the usual sense of making someone worse off or in the somewhat stranger impersonal sense described in Chapter 4. So it seems that my argument, while it may show that certain such choices are morally questionable, does not provide reasons for society to justifiably prevent people from making them. It seems to speak neither for nor against prohibiting any particular use.152

One way to respond to this would be to challenge head on the harm principle. Why should harmfulness to others be regarded as a necessary condition for societal interference with individuals’ actions? Why could not moral considerations unrelated to harm, such as the ones explicated and defended in this dissertation, sometimes count in favour of curtailing parental freedom with respect to certain uses of reproductive technologies?153

Proponents of reproductive freedom sometimes dismiss arguments based on non-harm-related concerns simply because they fail to be convincing – they are deemed “speculative” (Robertson 1994:

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152 This needs to be qualified somewhat. I have suggested that my argument can be used to reinforce harm-based concerns, in particular about the open future of children selected for sex. My argument might then strengthen the case for prohibiting sex selection on the grounds that it might be harmful. Conversely, it is conceivable that the doubts that I expressed in Chapter 4 about harms to the autonomy of selected or engineered children might weaken the case for prohibition of certain uses. (I am assuming that the impersonal account of harm on which both arguments would rest is sound – we have seen that it may well not be!) However, my main line of argument is not harm-based.

153 One non-harm-related argument for limiting reproductive freedom is found in McDougall’s virtue based argument against sex selection. She concludes her discussion by suggesting that her argument supports prohibiting such choices, although (because of the Non-Identity Problem) they are not harmful: “Sex selection cannot be justifiably restricted on a harm focused approach but looking beyond harm reveals the wrongness of the practice, and provides a justificatory basis for a restrictive policy” (McDougall 2005: 605).
“incoherent” (Harris 2005a: 287), or even so murky that they are “beyond reason” (ibid.: 288). I would find this a rather unfair objection to my argument. I have gone to great lengths to show that certain non-harm-related moral concerns about reproductive technologies are not simply irrational or mistaken but make much sense.

Another objection to arguments for restriction that are not harm-based is that they express concerns that are not, or cannot in principle be, shared by everyone in pluralistic societies – concerns rooted in particular religious life-views or contested moral positions (Robertson 1994: 34-5). This presumably makes them less suitable as basis for public policy than considerations about harm, which everybody recognises as weighty. This may be a forceful objection against some non-harm-based arguments for restriction – for instance those that invoke the moral status of the embryo – that do in fact hinge on controversial moral or religious viewpoints, on which we cannot hope that people will ever converge. It is far less certain that it is an effective objection to an argument based on considerations such as the ones that I have articulated. These considerations are not in any obvious way contingent on any religious or other comprehensive life-view. Of course, I have articulated them through arguments that may be questioned, and with the help of philosophical theories that are contestable. But it is not clear that this makes them different from harm-based considerations. Is there any other way to present any moral consideration supposedly important for some policy than in arguments that are philosophically criticisable?154

If this is right, the objections fail to show that non-harm-based arguments such as my own may not in principle give reasons for restrictions on certain uses of reproductive technologies. Nothing seems to hang on whether an argument is harm-related or not. The question is whether it is convincing, and whether it can hope to con-

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154 Let us take considerations about harm as an illustration of this point. Most people recognise the moral salience of such considerations and their importance for various policies. We believe almost universally that it is a bad thing, all else equal, if people are harmed or killed, and that laws and policies should be devised so as to avoid that happening. Not all of us, however, are convinced by the utilitarian or quasi-utilitarian arguments by which such considerations are commonly articulated and defended. But our scepticism about these arguments does not entail scepticism about the significance of harm-related considerations. We remain convinced, for instance, that child neglect is bad, and probably that some authority should at some point step in to prevent it, even if we do not believe that it is bad because (or only because) it causes the child pain or frustrates some of its preferences, as standard utilitarian accounts of its badness would go.
vince people representing different life-views. Not only the harms that the use of a reproductive technology might cause to the parents who use it or to their children, then, but also such things as the subtle effects that it might have on conceptions and forms of interaction on a societal level, should sometimes be taken into account when deciding whether or not to permit it. This is of course not to say that such considerations should always matter as much as more familiar harm-based considerations. And because they have to be balanced against reproductive freedom, a weighty countervailing consideration, they are unlikely to justify prohibitions on their own. But non-harm-related arguments should at least not be excluded at the outset from the debate.

However, this is not my main point as regards legal or other restrictions that society may impose on the use of reproductive technologies. Such approaches may certainly have important roles to play, but I would like to emphasise that we should not expect too much from them. It is a platitude that it is one thing to decide about a law or policy intended to prevent a particular kind of action, and quite another to put it in practice so that it actually reaches that end. But the limited power of such precepts is particularly salient from the point of view of the Aristotelian account of practical wisdom on which I have relied for my argument. One of the most important lessons from that account is that there cannot, even in principle, be such a thing as expert moral knowledge capable of supplanting individual agents’ judgment in particular situations. We should, then, not expect policy makers to simply do away with moral problems by devising legal or other rigid prohibitions against certain actions.155 Such measures are often too blunt, too far removed from particular agents and particular circumstances.

Arguably, this is especially the case when it comes to reproductive choices of the kind discussed in this dissertation, insofar as these choices are especially pervaded by subtle, highly context dependent and potentially conflicting considerations unlikely to be visible from the point of view of those who make policy decisions of this kind. If

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155 Also, it is certainly the case that society should not aspire to do something about all morally undesirable states of affairs, not even where everyone (given pluralism) can agree that they are undesirable. People should to a large extent be free to err morally. But this is not the point I am making here. Rather, what I am suggesting is that when there is reason for society to intervene to avoid what is morally undesirable, it often cannot do so by means of legal or other rigid prohibitions.
this is right, we should not be led by a preoccupation with the question which such choices should be permitted, and which should not, to overlook other possible approaches to the moral issues that they raise.

**Genetic Counselling**

One such approach, more attuned to the individual parents who make the decisions and the particular circumstances they are in, may be to address these issues through the *counselling* that health professionals offer the parents in order to facilitate their decision-making. I believe that the argument that I have presented in this dissertation allows me to make a few suggestions about that issue. I shall first say something general about the nature of genetic counselling, and then turn to how, more specifically, such counselling might help address the problem with enhancement uses of reproductive technologies that I have described.

To begin with, reproductive choices that involve the technologies that I have discussed are likely to carry a heavy moral significance to many or most who make them; they are likely to raise questions about what it means to be a good parent and about the role of parenting in the flourishing of children and adults. Counsellors should not shun this dimension of the choices. The reason is that our grasp on such questions is essentially hermeneutical. We deepen our understanding of them in mutual, interpretive encounters with others, where our preliminary answers are viewed and even challenged from across a certain distance. If this is right, and insofar as would-be parents at all recognise the relevance of such questions to the decision they are about to make, then one important task for counsellors is to explicitly address, even to some extent challenge, their view on them.

This means that if genetic counselling is to be genuinely helpful for would-be parents making morally difficult decisions, it cannot be restricted to a mere presentation of *facts*. What I suggest here is thus at odds with *non-directiveness*, the “central ethos for genetic counseling” (Weil 2003), in its narrowest form. According to this view counsellors should inform counselees about heredity, genetic disorders, available courses of action and so on, while avoiding giving any kind of advice as to what choice they should make or expressing any kind of personal opinion, thereby supposedly allowing them to make decisions
that exclusively reflect their own values. My suggestion adds to the already extensive critique of this view (see e.g. Wachbroit & Wasserman 1995, Murray 1997, Davis 2001, Weil 2003). This is however not necessarily to be understood as an argument against what is usually regarded the moral core of non-directiveness: respect for the counsellee’s autonomy. Indeed, many believe that counselling approaches that explicitly address and problematise moral issues may even promote autonomy (Kessler 1997, Wachbroit & Wasserman 1995).

How could genetic counsellors address the problem with instrumentalisation and wanting moral knowledge that I have described in this dissertation? One way might be to refuse assisting parents in certain, especially questionable cases, thereby overriding their autonomy. The scope for this approach is likely to be quite small, considering the great weight appropriately assigned to parental autonomy in this context. But insofar as refusing to assist parents is at all legitimate, I believe that my argument may sometimes give reasons for such refusals, just like it may in principle give reasons for restrictions of the type discussed earlier. The considerations that I have identified – in particular the possible negative social implications of certain choices – should at least be among those that counsellors take into account when they deliberate and discuss the legitimacy of refusing assistance.

However, the caution recommended earlier is important here, too. It would be a mistake to think of counsellors as moral experts. It may well be that they should sometimes withhold their assistance in especially problematic cases, but we cannot expect them to thereby do away with the all the problems, somehow circumventing the need for moral reflection on the parents’ part. The problem that I have described is probably often better dealt with in other ways than by refusing assistance, in ways that support such reflection. I shall close the discussion by suggesting two such ways. The suggestions do not

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156 This is one way to interpret the US National Society of Genetic Counselors Code of Ethics, according to which counsellors should “[e]nable their clients to make informed decisions, free of coercion, by providing or illuminating the necessary facts, and clarifying the alternatives and anticipated consequences” (NSGC 2006: Section II). There is little agreement as to the precise definition of non-directiveness. Many have understood it in terms of refraining from giving advice, others in terms of value neutrality. These conceptions of non-directiveness are criticised in Kessler (1997) and Wachbroit & Wasserman (1995), respectively.

157 For an argument to the effect that genetic counsellors should sometimes refuse assistance (but for different reasons than the ones that I have identified), see Davis (2001).
require that parental autonomy be set aside, I believe, but are reconcilable with whatever respect for autonomy requires in this context, or can at least be adjusted so as to be thus reconcilable.

First, I have argued that part of the problem is the pervasiveness of strong social norms surrounding parenting. One way to counteract the danger that such norms shape our thinking about parenting and children in instrumentalising ways might be to make them explicit in the counselling process. This would involve trying to make would-be parents more circumspect about their own reasons for the choice that they want to make. This could of course never keep all parents from making choices that reflect and contribute to reinforcing questionable norms. And on the societal level, any isolated measure is likely to have only very limited impact on the hold that such norms have on us. But norm-conscious genetic counselling could, if only in some small way and only in conjunction with other measures, contribute to making would-be parents more aware of their existence, and less likely to adhere too uncritically to them.

Second, my suggestion that wise parental choices are made against the background of shared experience underscores the importance of bringing different perspectives to the counselling process. In particular, counsellors should consider confronting parents who contemplate using PGD to select against a certain condition with those who actually experience the condition first hand: affected people themselves and, not least, their parents. Patient and parent organisations might have an important role to play here. (Cf. Baruch et al. 2004: 17) Thus widening the experiential resources that might inform parents’ choices could countervail the danger that they succumb too easily to dominant norms, unreflected personal preferences and the pressure from medicalisation. As Ricoeur remarks, with respect to bioethical issues, “[t]he phronimos is not necessarily one individual alone” (Ricoeur 1994: 273).
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