Designer Babies: One Step Closer

Post Date: 06/30/2004
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A recent USA Today article describes the difficulties of Joe Fletcher and his family in Northern Ireland. Joe’s son, Joshua, has Diamond-Blackfan anemia, a condition that usually occurs as a spontaneous genetic mutation. If the affected individual reaches reproductive age, the trait is usually heritable as an autosomal dominant disease. Joshua must receive repeated blood transfusions to counteract his inability to produce red blood cells, which carry oxygen to various parts of the body. The only cure for this condition is a stem cell transplant from a compatible donor. Joshua’s older brother is not a compatible donor and the chance of any other future siblings being compatible is one in four. The Fletchers hope to improve those odds significantly by using a technique known as pre-implantation genetic diagnosis (PGD). The process requires in vitro fertilization. Eggs and sperm from the parents are mixed in a petri dish, and the resulting embryos undergo DNA analysis. Embryos compatible with Joshua could be inserted into the mother’s womb to produce compatible siblings. Alternatively, if only a few embryos are compatible, they could be cloned to produce additional embryos in case the first attempt fails to result in implantation and fetal development.

This procedure is illegal in Great Britain and is regarded as unethical. Why? Before exploring the British objection, let me add an additional concern from a Christian perspective that regards these embryos as early human life, made in the image of God, possessing unique genes and the capability of continued human development. An important question for Christians is what will happen to the healthy embryos that are incompatible with Joshua. Will they be implanted later and given an equal chance at continued life or will they be discarded? Embryos not selected may be destroyed directly or by destructive embryo research, which is contrary to an understanding of human life being sacred. The USA Today article does not mention what plans the parents have for these other offspring.
The British concern expressed previously by the Human Fertilization and Embryology Authority (HFEA) is that human life would be created for the purpose of benefiting others, in this case a brother and the parents. This is a serious ethical concern. Should a child be created specifically to save another person’s life, or should a child be welcomed and loved unconditionally regardless of his or her instrumental value in helping someone else? This is important not just from a Christian perspective. Immanuel Kant, the prominent philosopher of rationalism, felt that human beings should always be treated as ends in themselves and not as the means for another person to attain his or her ends. In the Fletcher case, it does not seem that the embryos would be screened to test for known genetic defects. If Diamond-Blackfan anemia is a spontaneous mutation, and no known genetic anomalies are detectable in the parents (such as a mutation for RPS 19 on chromosome 19), then genetic screening is not a helpful option. The decision on life or death then would be made solely on whether a particular embryo, at a later stage of life, might be useful in helping Joshua. This pushes the issue of creating life to serve our needs and wants to a new level, and raises the issue of designer babies.

Prenatal genetic testing allows scientists to test established pregnancies for genetic defects that then could be avoided by aborting the pregnancy. Pre-implantation genetic diagnosis allows multiple embryos to be tested and inserted into the mother only if certain desirable traits are present. This possibility was recent discussed by Dr. Francis Collins, director of the National Human Genome Research Institute, when he noted that the time may soon arrive when pre-implantation screening will be used to pick desirable traits even in the absence of particular genetic disorders. In the coming years, human genome research will delineate gene clusters associated with increased intelligence, athletic ability, and musicality to name a few. The temptation to redefine parenthood to include choosing particular characteristics in their children, as opposed to unconditionally accepting offspring as a gift of God, seems fraught with perils beyond the scope of this article. For the sake of reflection, let us briefly consider a few issues.

Blastomere biopsy, the process by which a single cell is taken from the embryo for genetic testing, seems safe, but no long-term studies are available to exclude later problems from the procedure itself. In medical research, when new therapies are tested on human subjects, the welfare of the patient is a paramount concern. However, with in vitro fertilization, blastomere biopsy, and genetic screening, the embryos are not considered human subjects even though they are the earliest forms of childhood development and the beginning of lives whose health and well-being will later be a concern to all. Safety for the embryo must be a vital concern.

Our culture has generally considered parents to be the best judges of the welfare of their offspring, but even this has limits. Children are weak and vulnerable; they require protection from abuse and negligence. The ability for parents to choose which offspring die and which live and what traits they will manifest is an awesome responsibility. The President’s Council of Bioethics recently noted that

With genetic screening, procreation begins to take on certain aspects of the idea?if not the practice?of manufacture, the making of a product to a specified standard. The parent?in partnership with the IVF doctor or genetic counselor?becomes in some measure the master of the child’s fate, in ways that are without precedent . . . Today,
parents using PGD take responsibility for selecting for birth children who will not be chronically sick or severely disabled; in the future, they might also bear responsibility for picking and choosing which ?advantages? their children shall enjoy. Such an enlarged degree of parental control over the genetic endowments of their children cannot fail to alter the parent-child relationship. Selecting against disease merely relieves the parents of the fear of specific ailments afflicting their child; selecting for desired traits inevitably plants specific hopes and expectations as to how their child might excel. More than any child does now, the ?better? child may bear the burden of living up to the standards he was ?designed? to meet. The oppressive weight of his parents? expectations?resting in this case on what they believe to be undeniable biological facts?may impinge upon the child?s freedom to make his own way in the world.4

These concerns for tomorrow begin with Joshua?s parents today. The proposal is to select purposefully a child solely for his ability to provide a donor source for another child.5 Creating life primarily to serve someone else, especially when the other life may be rejected and destroyed for the simple reason that it did not meet the parents? needs, is an action that should always be condemned. CBHD


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