



A Recovery of Wisdom as Virtue for an Ethics of Genetics

Celia Deane-Drummond

Why is there so much interest in ethical issues in genetics compared with other areas of science? What form does this ethical discussion take, and what might be the contribution of theological ethics to this discussion? This article attempts to set out the scope of ethical discussion in genetics, and to offer a commentary on its secular development in the light of the relevance of a theologically informed virtue ethics.¹ Genetics, especially human genetics, intuitively seems to equate with our distinctive nature as individual humans, but it also reaches out beyond this to wider social and political questions. Therefore, it is relevant not just for individual ethics, or ethics in a family setting through the new reproductive technologies, but it also affects significant issues of public and political concern. In facing such diverse issues, the temptation for medical science is to resort to a case-by-case approach and to rely simply on ethical principles such as patient autonomy and informed choice. Drawing particularly on the work of the medieval theologian, Thomas Aquinas, I will argue for a recovery of prudence, or practical wisdom, and will suggest that it offers fruitful avenues for exploration in the light of particular questions raised by contested issues in genetics. Moreover, prudence as practical wisdom is aligned with divine Wisdom, understood as integral to a Christian understanding of God as Trinity.



Celia Deane-Drummond

Biomedical ethics is a field that has grown up and transformed itself from a discipline that was once loosely based in Christian morality, to one that is more akin to a specialist science. Biomedical ethics has more often than not looked to the principles of respect for beneficence, autonomy, justice, and non-maleficence, bringing in a discussion of the virtues almost as a way to supplement these presupposed principles.²

What Is Genethics?

Genethics overlaps with bioethics in that it raises similar issues connected with the start of life, but it also is even broader than bioethics in that it includes research in genetic science and its practice even prior to clinical applications. The scope of ethical discussion, among theologians at least, has tended to limit the ethical analysis of genetics to those areas connected with reproductive biology rather than consider in more depth those wider medical practices that rely on genetics and have social and political implications,

such as genetic screening, patenting, and feminist concerns.

One reason why genethics has become such an area of acute concern is likely to be related to the view that in altering genetics, we are changing something fundamental about human nature. But where there are overstatements about the importance of genetics on influencing human evolution, and by association, genethics, then there is a failure to provide a critical voice to the discussion that is vitally needed in the midst of heated public discourse. While on the one hand, genetic science is continuing to make

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more and more discoveries about the importance of genes for bodily function and disease, it is also qualified by the realization that environmental influences play a highly significant role in almost all cases under discussion.

Genetic deterministic attitudes have crept into the way medical practitioners and politicians have thought about health and disease. Such an attitude is represented by the claims that once all genetic elements are known, then future health would be predictable. Thus, genetics plays a central role in health and disease incidence. For example, why does a woman who knows she has genes which predispose her to breast cancer, BRCA1 or BRCA2, choose to have prophylactic surgery, even though the probability of disease expression is also influenced by many environmental factors? Although the philosophy that permits such direct action is one of informed choice, is such choice partly guided by a subtle form of genetic determinism? Statistical results may be loaded by language use such as “high risk” that seem threatening to the patients.

According to traditional understanding of medicine, the health of an individual is related to the physiological, functional, and phenomenological appearance of disease, that is, a person is sick when manifesting the symptoms of disease. It is worth asking if there is a new trend to identify the sick with those who have genetic traits, regardless of expression of the disease. It seems to me unlikely that a medical clinician would consider persons “diseased” if they carry genetic traits predisposing them to contract a given disease. Nonetheless, it is worth asking how far such results are taken up and used in social and political contexts. The use of such information by insurance companies or employers, who have a stake in knowing how likely persons are to contract diseases, is a significant aspect of this trend toward the use of genetics in preventative medicine.

Genetics and Human Nature

Where genetic knowledge is used as a means to prevent certain types of individuals being born—more often than not because there is no “cure” for a disease—is a form of medical practice that prevents those who are likely to

have a disease from ever existing. Ethical issues in this case bear on the status of the human embryo or foetus. Yet, we might ask ourselves, what if it were possible to change the genetics of such an embryo so that the disease were no longer present, would this in effect be changing the person’s human identity?

Some philosophers have argued that if a faulty gene is no longer present, then such changes amount to changes in human identity because the life experience of that individual would be so different from the one who would have lived had the faulty gene been allowed to express itself.³ In addition, the treatment of a young baby with somatic gene therapy, in those cases where the disease is particularly severe, would also change the infant’s self-perception, as for example, the treatment of eight- or eleven-month-old babies for severe combined immune deficiency (SCID) syndrome. This is because without treatment the life experience would be very different compared with those who had treatment, so the identity issue applies in this case. Those diseases that are the most severe, such as Tay Sachs disease, will lead to a life of suffering that is cut short in infancy. A child born without such a disease would have a different life experience than the one with the disease, and arguably a different identity. In other words, according to this philosophical argument, inherited genetic modification (IGM) or somatic gene therapy of very young babies cannot be classed as a type of “therapy,” as the person who exists would be very different and have a different identity had the treatment not taken place.

On the other hand, those who have late onset diseases could be considered to be the same person if the faulty gene was removed prior to birth. Where the identity problem exists, decisions are not easy to make on the basis of benefit for the future child, since arguably this child’s identity has changed. Yet this form of philosophical reasoning seems counter-intuitive. One possible alternative approach is to use some form of utilitarian calculus in arriving at decisions based on the projected future suffering of persons.⁴ This form of reasoning also seems problematic; as it is not always clear what harms might arise. In addition, it is equally clear that the notion of harm is dependent on who is making the criteria about what counts as being harmful.

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The debates over whether it is permissible to screen in favor of deaf fetuses prior to implantation are relevant in this context.⁵ John Harris has claimed that deliberately deafening a child is the same morally as selecting a deaf embryo prior to implantation, both are choices which lead to the same overall result, namely a deaf child exists. Yet this argument is faulty both morally and conceptually.⁶ The case also illustrates the problems associated with an ethical analysis based on impersonal principles that rely on consequentialist arguments that are presented in terms of the overall sum total of suffering. However, Harris fails to consider the identity problem, namely, that if the deaf embryo *had not* been selected, the child would not have existed, while if the child who was hearing had not been deafened, the child would still have existed. In the case of choosing the embryo for selection, a child's best interest cannot be used, as the child would not have existed had the choice not been made. Accordingly, Häyry believes that the "real policy choice must be made between reproductive autonomy and socio-economic considerations" in providing for special needs of the child.⁷ He does not consider the other possible hearing children who would have been born had the decision been made *not* to select a deaf embryo. The parents arguing for parental autonomy in this case also do so on the basis of the welfare of the child, namely that a deaf child so born would be then integrated into the deaf community.

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The above is an unusual example in that genetic screening has been advocated more often for screening *out* those who are likely to suffer various disabilities, rather than for selecting in their favor. On one level, one might argue that if hearing parents were to be given the opportunity to choose through pre-implementation genetic diagnosis (PGD) a hearing rather than a deaf child, then why should this choice not also be given to deaf parents, who desperately want a child who can be integrated into their social and communal life?⁸ If we take Häyry's policy choice, then we have to decide if we should not burden society with another deaf child in which case this would elevate

socio-economic considerations above the freedom of choice for the parents.

The argument, however, is weak in this case as there are other reasons why we might want to avoid deafness other than socio-economic ones. Those who speak of the welfare of the child in this vein have to counter those in the deaf community who argue in favor of deafness as a positive option in their family. Of course, if the selection works the other way round for hearing parents, that is, deliberately selecting an embryo that is *not deaf*, or likely to be deaf, then this might imply that deaf existence is a life not worth living. This is particularly the case from the perspective of the deaf community, so that screening out those like them is perceived as a slur on their way of life and value as individuals.⁹

The welfare of the child argument in favor of screening for a deaf child does not make sense, since if the embryo was not selected, it would not have lived. On the other hand, if the capacity were present to genetically alter what might have been a deaf child, this too would change the identity of that child. It seems to me that in this case the mantra of autonomy has overreached itself. In other words, to use PGD either to screen in favor of a deaf child, or to select against a deaf child is an inappropriate reification of freedom and parental "rights" for children of their own choosing and an inappropriate use of PGD. The condition is, in other words, not sufficiently serious to screen out, and to screen in favor implies parental control over their children, rather than parental acceptance of children as gifts, with all their associated weaknesses and strengths.¹⁰ It is, arguably, a version of liberalism that puts value entirely in freedom of choice, rather than rooting such choices in the virtues with an orientation toward the common good. Hence, it is not so much on the basis of socio-economic gains that such an action needs to be resisted, but rather on the basis that there are some uses of the technology which overreach its intentions as medicine, namely to serve to heal those who are sick. Deaf parents who have hearing children face the same sort of difficulties as hearing parents with deaf children, but few would dare suggest that hearing children should be screened out prior to birth.

In addition, the above raises issues about the kind of society we are becoming and the human practices that are being condoned through the use of genetic technologies. Rather than being concerned that human nature or even that the identity of a child might be different if that child were to be given genetic "therapy," we should be more concerned with broader cultural trends that elevate liberalism to such an extent that children become rights that can be purchased according to parental desires and wishes. The limits of a personalist approach that faces the identity problem, and more impersonal approaches that lack the ability to identify with those facing the problems



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at hand come more clearly into view. The question then becomes, are there ways of viewing ourselves as persons that might help us navigate such difficult territory?

There is a recognizable trend in bioethics, including a discussion of genetics, so that it becomes “thinned out” in such a way that overlapping consensus is arrived at through formal modes of reasoning.¹¹ Such a development could be viewed as a mixed blessing, for formal reasoning seeks to calculate the most effective way of reaching an end that is assumed to be a good. In the case of deaf selection discussed above, the good assumed is that shaped by liberalism, namely, that parental choice trumps other considerations. The shift to “thinner” versions of discourse has been particularly evident in the United States, where the creation of genetic advisory commissions were apparently set up to avoid the possibility of more stringent regulatory bodies that might interfere with scientific research.¹² The ends that were assumed were respect for persons (that is, autonomy), beneficence, and justice. Bioethics was perceived as simply about how to arrive at such ends. This may be one reason why health care provision has apparently lacked any real reference to virtue ethics,¹³ for it has relied on policy making that has taken up this “thinner” bioethical discourse.

Given these presumptions, it is not surprising that some of the most critical voices about genetic practice come from outside the discipline of bioethics. Francis Fukuyama has voiced particular concerns about the dangers of genetic engineering in terms of changing our identity as human beings.¹⁴ This is not so much the narrow issue of whether someone who has been genetically changed is the same person or not, as discussed above, but wider questions about whether human power over nature has changed the meaning of what it is to be human.

Even stronger is the suggestion made by C. S. Lewis in his book, *The Abolition of Man*, that humanity’s attempt to subjugate nature actually leads to its own subjugation. In other words, when humans are treated as artefacts, those acting cease to be human.¹⁵ Or do they? Certainly, there are those who believe, correctly in my view, that treating humans as “objects” is wrong, but the bor-

der between the artificial and the natural is becoming much more blurred in our present century. Is this invasion of the natural by the artefact necessarily to be resisted?

While we need to guard against treating human persons as experimental objects rather than subjects, some theologians have warmed to the idea that we live in a technological age. In this sense, technology becomes the means to express creativity, to become made in the image of God, and to find meaning through that technology rather than in pitting against it. Philip Hefner puts forward the following proposals:

- (a) Technology is a sacred space.
- (b) Technology is a medium of divine action as it involves the freedom of imagination that constitutes self-transcendence.
- (c) Technology is “one of the major places today where religion happens. Technology is the shape of religion, the shape of the cyborg’s engagement with God.”
- (d) Technology is the place where we wrestle with the God who engages with human cyborgs.¹⁶

Hence, rather than fear technology, Hefner suggests that we should welcome it as an aspect of our human identity and meaning, a place where God can act.

Yet I am uncomfortable with this seemingly blanket endorsement of all things technological. In the first place, it seems to lack ethical analysis, bringing religious language into technology in such a way to reinforce such goals, without challenging whether such goals are desirable. If bioethics works without a proper analysis of goals, then theology’s contribution needs to be to challenge such presumptions and to seek both a critique of means and ends. Hefner seems to avoid such critique other than speaking in somewhat vague terms about a “wrestling” with God.

A Virtue Approach to Genethics

The virtues¹⁷ are those aspects of character formation that help to provide those human strengths needed in seeking what might be the good and in deciding what might be the principles needed in areas where such principles and goods are in dispute.¹⁸

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There are other dangers as well that one might identify with a strong liberalist approach to ethics and its focus on rights language. James Keenan, for example, believes that many of the so-called principles that are arrived at in bioethical discourse are “nothing more than the claims of conservatives who have accepted the context of liberalism.”¹⁹ Rights language is evident in the heated discussion over reproductive technologies, where the rights of parents or mothers are opposed to the rights of the foetus, though in law the foetus has no such rights. These debates fail as both are reliant on the same premises, namely, that the discernment of rights is the proper way to approach moral reasoning. An alternative approach, which moves away from the almost exclusive focus on rights, autonomy, and conflicts of interests, is represented by virtue ethics. Virtues look more deeply not just at actions of agents, but also at the agents themselves.²⁰

Alasdair MacIntyre defines virtue as “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 such goods.”²¹ If virtue is acquired, then it can be learned, and becomes a habit of mind leading to particular patterns of behavior. Some might even say that such patterns actually begin to alter the psychological structure of the brain in certain ways, hence reinforcing the patterns built up through constant practice.²² The goods are both internal in character formation, but also external in outcomes, leading to particular actions. Hence, even public virtue is valuable not simply for its instrumental value in leading to a particular good, but also because of the internal goods for leaders in a given community.

A Recovery of Prudence as Practical Wisdom

One of the first myths that needs to be overcome in any discussion of prudence is that it amounts to a form of restraint, a conserving of resources for one’s own use. This version of prudence is a far cry from the medieval concept that is associated with a proactive concern with the good. It is also important to understand the place of prudence in Aquinas’s scheme. Prudence, or practical wisdom, is one of two virtues of *practical reason*, the other is art or right judgment. Wisdom *in itself* is related to prudence, where wisdom is one of three virtues of *speculative reason*. The others are *understanding*, or grasping, first principles and *scientia*, which denotes the comprehension of the causes of things and the relationship between them. In other words, wisdom is the understanding of the fundamental causes of everything and their relationship to everything else. Human wisdom is a virtue directed toward the wisdom of God, for while wisdom can be learned, it cannot be grasped or used for human aggrandizement (Proverbs 16). In the fullest sense, human wisdom is only possible

through the gift of the Holy Spirit, by the grace of God. The Christian vocation includes developing the virtue of wisdom.

In this tradition, all virtue is prudent or informed by practical wisdom and prudence supplies that way of thinking about virtue that assists in assessing what it means to be just, to have temperance, to show charity, and so on. Sins are always in opposition to prudence. Prudence “helps the other virtues and works through them all,” and it is only by *participating* in prudence that a virtuous action can be considered virtuous at all.²³ Josef Pieper argues that prudence is not simply an optional extra, rather it serves to express what it means to be human:

the intrinsic goodness of man, and that is the same as saying, his true humanness—consists in this, that “reason perfected in the cognition of truth” shall inwardly shape and imprint his volition and action.²⁴

Yet it would be succumbing to the temptation of the Enlightenment if we assumed that reason simply meant rational understanding. Rather, Pieper argues that reason needs to be thought of in this context as “regard for and openness to reality” and “acceptance of reality.”

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How does prudence express itself? Aquinas considered that *deliberation*, *judgment*, and *action* are the three phases of prudence. Prudence may be distorted at any of these stages. If the goal is faulty, this is “sham prudence.” This might include action against the needs of the community. If the goal is only beneficial to a few individuals, this is “incomplete prudence.” Distortions can be avoided by acting according to “the fear of the Lord,” that is, respect for the Divine Law. For biblical writers, wisdom and discernment are intimately linked with the fear of the Lord. Forms of discernment that go against the good of a community amount to folly. Prudence, for Aquinas, has eight elements: memory, insight, teachableness, acumen, reasoned judgment, foresight, circumspection, and caution.²⁵

Prudence in the mode of cognition has three elements, namely *memoria*, *docilitas*, and *solertia*. *Memoria* is more



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than just the natural capacity for recollection. Rather, it is a memory that is “true to being,” which means that “it contains in itself real things and events as they really are and were.”²⁶ This task is one that shapes the historical mind, where memory reaches back into history even further than individual experiences. If such recollections are falsified in some way, then prudence is no longer possible, as error insidiously establishes itself in a way that is hard to eradicate. Of course, some might say that such an ideal is impossible to attain, that we can never really know what happened because of the distance between past events and present ones. However, the importance of this element is the attempt at least to aim as far as possible to recall truthfully what happened, without embellishments or omissions and shifts of accent.

Memory of the past includes the shadow of eugenics, the way genetics has been abused to justify the exclusion of those who were deemed “mentally retarded” and “unfit” members of the human community. Openness to being taught includes listening to those who have learning difficulties. How do they feel about screening programs designed to eliminate those fetuses which share their condition? A recent survey suggests that they find such actions abhorrent, as it seems to reinforce social and cultural prejudice against them.²⁷ Prudential living requires learning to move beyond social barriers that have ensnared human society through absorption of unchallenged cultural prejudices.

A second element of prudence is *docilitas* (teachableness), or open-mindedness. Such a desire is essential in order for prudential decisions to be made. Someone who refuses to listen to advice, or assumes that they know it all, will not be able to make prudential decisions. This characteristic also secures the communal element in prudential decision making; it is never simply just about one’s own decisions in detachment from the views of others.

The third element of perfection in cognition is *solertia* (acumen), that is, the ability to act clearly and well in the face of the unexpected. Such actions are not rash judgments, but informed by *docilitas* and *memoria* in such a way that prompt decisions are possible.

Irresoluteness, that is, unable to act, or rash and fickle actions do not show the quality of *solertia*. It is, as it were, the other side of the coin to *docilitas*, which includes an element of stillness and contemplation. *Solertia* draws on this experience and is able to act rightly although the time for such deliberation is no longer present. It goes without saying that acts that require *solertia* are not the norm, but are a result of an unexpected event. Aquinas also includes *insight* and *reasoned judgment* in his list of components of prudence related to cognition.

What might be the elements of prudence as imperative? The first element here is *foresight*, which Aquinas links with providence. Foresight is the ability to know if certain actions will lead to a desired goal. Aquinas believed that this element was one of the key characteristics of prudence, for it always points in some sense to the future. Yet the judgments of prudence are not fixed or certain in ways that might be the case if it were a rigid application of rules or principles. Rather, “because the subject matter of prudence is composed of contingent individual incidents, which form the setting for human acts, the certitude of prudence is not such as to remove entirely all uneasiness of mind.”²⁸

Aquinas also includes *circumspection* and *caution* in the list of those components of prudence that are concerned with putting knowledge to action. *Circumspection* is the ability to understand the nature of events as they are now, while foresight is the ability to understand events as they might be in the future. Caution has to do with imprudent acts that are too hasty in their execution, and avoiding obstacles that might get in the way of sound judgments, though clearly a form of caution that leads to inaction is not what Aquinas had in mind. In addition, Aquinas also recognizes the place of *gnome*, that is, the wit to judge when departure from principles is called for in given situations.

Aquinas was clear that while the moral virtues on their own will incline themselves toward right action, this inclination is not sufficient, which is why prudence is so important for all the moral virtues.

The bent of moral virtue toward the mean is instinctive. Yet because the mean as such is not found after the same manner in every situation, the bent of nature which works uniformly

is not enough, and requires to be complemented by the reasoning of prudence.²⁹

Hence, prudence helps to recognize those subtle differences that lead to a different course of action in given circumstances.

*Just as individual prudence sets
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for distributive justice.*

Prudence as setting the mean of the moral virtues has more to do with individual prudential decisions. Aquinas also wanted to extend the consideration of prudence not simply to individual acts, but beyond this to inform political governance. While Aquinas's discussion of prudence bears some relationship to that in Aristotle, in this respect it is different, for Aristotle confined his attention to individual prudence. Aquinas's view of political prudence relates to justice, but is certainly not identical with it, so he can claim that "such prudence bears the same relation to legal justice that ordinary prudence does to moral virtue."³⁰ In other words, political prudence helps to situate what it means to demonstrate legal justice in given situations, with reference to the various elements of prudence discussed above. He is also ready to admit that there are varieties of prudence appropriate for the good ends fitting for domestic care of the family, "monastic" care of an individual in a monastery, and the common good of the state.³¹ He names these as prudence, as applied to individuals; economic prudence, as applied to families or households; and political prudence, as applied to the state.

Jean Porter suggests that "the very substance of distributive justice is so intimately linked with the determinations proper to political prudence that it would seem that political prudence and distributive justice are in effect two components of one virtue by which rulers govern wisely and well."³² Yet, if this was the case, why did Aquinas argue specifically for political prudence to be included in considerations of prudence, unlike Aristotle, who believed that prudence was confined to individual decision making? Just as individual prudence sets the mean for the moral virtues, so political prudence sets the mean for distributive justice. Distributive justice is that concerned with the relationship between the whole and individuals, but what this distributive justice might mean is not self-evident in all cases, and needs to be supplemented by political prudence in much the same way as correct decision making for the moral virtues with individual prudence.

It seems to me that this is a crucial point, for if political prudence is simply equated with distributive justice, then prudential reasoning as such is no longer allowed into the political and public forum. Political prudence is one way of helping to heal the rift between public and private morality, and the false divide between a "subjective" virtue ethic that is concerned with individuals, and principled "objective" approaches that are more often concerned with wider social contexts.

The Role of Divine Grace

Aquinas also departed from Aristotle in that he situated the good attained by prudence in the context of the Divine Law. In addition, prudence could be acquired by learning, but he also insisted that it could be received or infused by divine grace. These give qualities to prudence which are not simply those arrived at through innate capacities. For "The prudence of grace, however, is caused by God's imparting."³³ This allows Aquinas to argue for prudence being present in children and those whose reasoning is impaired. However, he is also ready to admit that prudence can be spoiled in all kinds of ways, and where truths are forgotten prudence no longer flowers into action, and becomes "blocked."³⁴ Hence, the virtue of charity in one sense even trumps that of prudence, for without charity prudential decision making becomes disconnected from its source as rooted in the love of God and neighbor.

The theological virtues of faith, hope, and charity are necessary prerequisites for all of the infused virtues. Gifts come through the working of the Holy Spirit, and as Romano Cessario suggests,

The gifts of the Holy Spirit complete the practice of Christian moral theology, for they ensure that each virtuous action of the believer conforms perfectly to the will of God.³⁵

While Aquinas lists the *affective* gifts as fortitude, piety, and fear of the Lord, the *intellectual* gifts are wisdom, understanding, knowledge, and counsel. The gifts are associated with virtues, so that fortitude is gift and virtue, piety is linked with justice, hope and temperance with fear of the Lord. The virtue of charity is associated with wisdom, the virtue of faith is associated with understanding and knowledge, and the virtue of prudence with the gift of counsel. How helpful are these associations? In the first place, they are reminders that the life of virtue is not simply about straining to reach a goal in independence of God or faith in Christ. In order to be perfect, a life of virtue flows from the experience of a graced existence that enables the believer to attain a higher level of goodness than would otherwise be the case. The gift of counsel as associated with prudence also makes sense in the context of prudence as encompassing *docilitas*.³⁶ The Holy Spirit, as divine Counselor, still preserves the freedom of the individual. Faith as associated with understanding and



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knowledge is also reminiscent of faith seeking understanding as the task of theology. While Aquinas had theological understanding more in mind in this context, it also applies to scientific understanding in the sense that understanding is only possible when there is a degree of commitment.

Wisdom as gift will issue in the virtue of charity, though the relationship is somewhat circular, for without charity wisdom becomes dysfunctional. Aquinas also gives charity primacy over faith and hope, even though he recognized that faith precedes hope and charity "in the sequence of coming to be." He also believes that hope as act is prior to an act of charity, but

in the precedence of value, however, charity comes before faith and hope, because both faith and hope come active through charity, and reserve from charity their full stature as virtues. For thus charity is the mother and root of all virtues, inasmuch as it is the form of them all.³⁷

Hence the kind of linkages between gifts and virtues is just one strand of the relationships between virtues and their expression in particular acts. It is clear that charity is a fundamental virtue that informs the other virtues, including the four cardinal virtues discussed above. Yet the correlations suggested above also seem to coalesce in wisdom, for

piety makes wisdom manifest, too, and because of that we can say that piety is wisdom, and for the same reason also is fear. If a man fears and worships God he shows he has a right judgment about divine things.³⁸

Such judgment needs to be integrated with practical wisdom in those difficult and complex questions arising out of the new genetic technologies.

Conclusions

The above discussion leads to some interim conclusions. In the first place, liberalism understood as a reification of individual moral autonomy dominates present discussion of genethics. Secondly, there is a need to recover a sense of common good in order to counter this trend. I have suggested that the classic appropriation of the virtues is one means to achieve this. In particular, prudence or practical wisdom is a crucial qual-

ity of agents, but it also includes political dimensions. Prudence can be learned, but it also may be infused with divine grace. On the other hand, wisdom as virtue is concerned with theological understanding and is linked with charity. Prudence as virtue is concerned with human affairs in relationship to the good understood in Christian terms. The classical notion suggested that different elements of prudence work together in order to achieve the good, and that good is understood as being in accordance with the Divine Law. In the Christian community, the gifts of the Holy Spirit work with acquired virtues in serving to shape decision making. I suggest that this needs to become a way of embedding Christian values in the practices of science and technology, and shaping its direction in particular ways according to the common good of the community and in alignment with an understanding of God as wisdom.³⁹ *

Notes

¹This article is a modified and abridged version of chapter 1 in C. Deane-Drummond, *Genetics and Christian Ethics* (Cambridge: Cambridge University Press, 2006.)

²See T. L. Beauchamp and J. F. Childress, *Principles of Biomedical Ethics*, 5th ed. (New York: Oxford University Press, 2001).

³Walter Glannon, "Genetic Intervention and Personal Identity," in B. Almond and M. Parker, eds., *Ethical Issues in the New Genetics* (Aldershot: Ashgate, 2003), 69–80. Pilar Ossario makes similar arguments in P. N. Ossario, "Inheritable Genetic Modifications: Do We Owe Them to Our Children?" in A. Chapman and M. S. Frankel, eds., *Designing Our Descendants* (Baltimore: John Hopkins University Press, 2003), 252–71.

⁴Derek Parfit, *Reasons and Persons* (New York: New York University Press, 1984)

⁵For further discussion, see C. Dennis, "Deaf by Design," *Nature* 431 (October 2004): 894–6.

⁶John Harris' position is discussed in M. Häyry, "There is a Difference Between Selecting a Deaf Embryo and Deafening a Hearing Child," *Journal of Medical Ethics* 30, no. 5 (October 2004): 510–2.

⁷*Ibid.*, 511.

⁸Dennis, "Deaf by Design."

⁹This also applies to other instances of screening, such as Down syndrome. Of course, those engaged in such screening will deny that this casts a slur on those with such a condition. The point here is that society is seen to be making judgments that act in favor of one community rather than another.

¹⁰I am not suggesting that screening in itself in all cases automatically leads to a lack of acceptance of resulting children. Rather, where parental control is such as to avoid less severe diseases, it implies a lack of acceptance of weaknesses and drive for perfection that goes against welcoming children as gifts.

- ¹¹Gilbert Meilaender, "The Thinning of Bioethical Discourse," *Medical Humanities Review* 16, no. 2 (2002): 71-5.
- ¹²J. H. Evans, *Playing God: Human Genetic Engineering and the Rationalization of Public Bioethical Debate* (Chicago: University of Chicago Press, 2002).
- ¹³N. Messer, "Health Care Resource Allocation and the Recovery of Virtue," *Studies in Christian Ethics* 18, no. 1 (2006): 89-108.
- ¹⁴F. Fukuyama, *Our Posthuman Future* (London: Profile, 2002).
- ¹⁵C. S. Lewis, *The Abolition of Man* (Glasgow: The University Press, 1943).
- ¹⁶P. Hefner, *Technology and Human Becoming* (Minneapolis, MN: Fortress Press, 2003), 88.
- ¹⁷Other authors have considered Christian virtues in medical practice more generally as applied to professional decision making for medical practitioners, rather than focused specifically on genetics. See Edmund Pellegrino and David Thomas, *The Christian Virtues in Medical Practice* (Georgetown: Georgetown University Press, 1996).
- ¹⁸William May, "The Virtues in a Professional Setting," in K. W. M. Fulford, G. Gillett and J. M. Soskice, *Medicine and Moral Reasoning* (Cambridge: Cambridge University Press, 1994), 75-90.
- ¹⁹J. Keenan, "What is Morally New in Genetic Manipulation?" *Human Gene Therapy* 1 (1990): 289-98, esp. 291.
- ²⁰For a review of virtue ethics approaches, see, for example, R. Crisp, ed., *How Should One Live? Essays on the Virtues* (Oxford: Clarendon Press, 1996); D. Statman, ed., *Virtue Ethics: A Critical Reader* (Edinburgh: Edinburgh University Press, 1997); R. Crisp and M. Slote, eds., *Virtue Ethics* (Oxford: Oxford University Press, 1997); R. Hursthouse, *On Virtue Ethics* (Oxford: Oxford University Press, 1999); S. Darwell, ed., *Virtue Ethics* (Oxford: Blackwell, 2002).
- ²¹A. McIntyre, *After Virtue: A Study in Moral Theory*, 2d ed. (London: Duckworth, 1985), 178.
- ²²For more detailed discussion of this aspect, see C. Deane-Drummond, *The Ethics of Nature* (Oxford: Blackwell, 2004), 136-61.
- ²³Aquinas, *Summa Theologiae, 2a2ae, vol. 36, Prudence*, trans T. Gilby (London: Blackfriars, 1974), Qu. 47.5.
- ²⁴J. Pieper, *Prudence* (London: Faber and Faber, 1955), 16.
- ²⁵Aquinas, *Summa Theologiae, 2a2ae, Prudence*, Qu. 49.
- ²⁶Pieper, *Prudence*, 26.
- ²⁷See, for example, Ann Kerr and Tom Shakespeare, *Genetic Politics: From Eugenics to Genome* (Gretton, Cheltenham: New Clarion Press, 2002).
- ²⁸Aquinas, *Summa Theologiae, 2a2ae, Prudence*, Qu. 47.9.
- ²⁹Ibid., Qu. 47.7.
- ³⁰Ibid., Qu. 47.10.
- ³¹Ibid., Qu. 47.11.
- ³²Jean Porter, *The Recovery of Virtue* (London: L SPCK, 1994), 104.
- ³³Aquinas, *Summa Theologiae, 2a2ae, Prudence*, Qu. 47.14.
- ³⁴Ibid., Qu. 47.16.
- ³⁵R. Cessario, *Introduction to Moral Theology* (Washington, DC: Catholic University of America Press, 2002), 211
- ³⁶For further discussion of the relationship between prudence and the gift of counsel, see Deane-Drummond, *The Ethics of Nature*, 13
- ³⁷Aquinas, *Summa Theologiae, 1a2ae, vol. 23, Virtue*, trans. W. D. Hughes (London: Blackfriars, 1969), Qu. 62. 4
- ³⁸Aquinas, *Summa Theologiae, 2a2ae vol. 35, Consequences of Charity*, trans. T. R. Heath (London: Blackfriars, 1972), Qu. 45.1
- ³⁹Practical examples of how this might be achieved in particular instances, such as genetic screening, genetic counseling, etc. is discussed in detail in Deane-Drummond, *Genetics and Christian Ethics*. This article has the limited task of attempting to set out an alternative way of considering the place of virtues in genetic practices.

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