

Review of David B. Resnik *Owning the Genome: A Moral Analysis of DNA Patenting*. SUNY Press, 2004.

Reviewed by

Peter Murphy

This book is devoted to showing that with the single exception of patents on people's whole genomes, DNA patents are morally permissible. Resnik begins with three useful background chapters: one on recent controversies over DNA patents in the United States and abroad; another on the basic science of DNA, as well as research and product development related to DNA; and another, especially useful, chapter on the legal nature of patents and intellectual property. The focus of moral evaluation is patents as they are set out in American law. These give their holders a right to exclude others from producing, using, or commercializing the patented item for twenty years. Items that can be patented include products, processes, and improvements thereof. However, a patentable item must issue from human ingenuity (as opposed to nature); this rules out laws of nature, natural phenomena, and naturally occurring living things and chemical compounds. Of course, in its natural form, DNA is not a product of human nature and therefore not a candidate for patenting. However, since 1980 American law has deemed it patentable in isolated and purified form (in this form, Resnik reports, up to 95% of the sequences in the artificial sequence are in the natural sequence).

Turning to ethical issues, Resnik argues for the permissibility of both the general practice of patents, as well as patents on DNA. The general practice is morally defensible because patents produce public benefits, protect private rights of ownership, and strike a reasonable balance in doing so. The public benefits include, in the near term, scientific, medical and agricultural discoveries and innovations; the central long-term benefit is the lower prices that come after the patent has expired and the patented item is publicly disclosed for others to market. Patents help to bring about all of these benefits by providing a legally protected twenty-year monopoly, thus functioning as powerful economic incentives. They thereby also protect private rights of ownership; but even here the public good is not overlooked, since patent-based monopolies are constrained in various ways to protect the public good (e.g. by anti-trust laws).

Specific patents are morally assessed against a hybrid view that incorporates consequentialist and deontological elements. Two chapters are devoted to possible implications of deontological strictures. Resnik argues that with the sole exception of people's whole genome, no deontological stricture can be used to show that DNA patents are immoral. The strictures are classified into two sets. One set clusters around the idea that we shouldn't patent nature. Many of the usual characters appear here, including strictures rooted in theological claims. Also included are strictures concerning distributive justice. Apart from whether this is where these strictures should appear in the taxonomy, many will find the discussion of these

strictures too brief (it is only a few pages) and, in the end, simply unconvincing. For example, in response to Rawlsians who might be concerned that DNA patents will result in violations of the difference principle, Resnik points out that DNA patents might at some point in the long run benefit the worst off. This falls far short, though. Might is not enough: if just one person among the worst off does in fact die because she cannot afford a patented item that she would have been able to afford had it not been patented, the difference principle is straightforwardly violated.

The other set of deontological strictures clusters around the idea that patenting human DNA violates human dignity. Resnik usefully distinguishes between acts that actually violate human dignity and acts that risk violating human dignity. Like the reply to the Rawlsian concern, threats to human dignity are answered with the claim that DNA patenting *need not* eventuate in our worst fears coming true, in this case in any actual violations of human dignity. Again, though, the move is unconvincing. It is not enough to show that a troublesome consequence of DNA patents *need not come to pass*. For consider those on the other side of the debate. Someone against DNA patents can just as easily respond to a Resnik-inspired concern that a ban on patents would forfeit public benefits and the protection of property rights by pointing out that the benefits *may after all not come to pass*. This symmetry brings out a weakness in one of Resnik's favorite argumentative ploys, arguing that some consequence may not come to pass.

There is one stricture with implications. According to Resnik, it is wrong to patent a person's whole genome, since doing so commodifies one's whole person, and it is a violation of human dignity to commodify one's whole person. The first of these supporting claims, the claim that patenting one's whole genome commodifies one's whole person, is supported by the further claim that there are important causal and axiological relations between one's genome and one's person. Resnik invokes two causal relations: one's genome is necessary for one's existence; and one's genome plays an important causal role in the production of the phenotypic traits by which one is identified. However, no case is made for why these causal relations lend support to the claim that patenting one's whole genome commodifies one. Perhaps no such case can be made: all that I have eaten stands in similar causal relations to my person, yet patenting all that I have eaten would hardly violate my dignity. As for the axiological relation, Resnik reminds us that in our society assessments of people's genes are thought to bear on our assessments of them as persons. This, however, is a *perceived* axiological relation. No case is made for an *actual* axiological relation. So we are left wondering how a perceived axiological relation can support a claim about what actually violates human dignity. There is a further challenge to those who are against patenting whole genomes, a challenge that Resnik does not take up. Patents only establish exclusionary rights; so patenting my whole genome does not yet allow anyone to own, buy, sell, use, destroy, or rent me. As Resnik notes, patenting a thing does not even carry a legal right to produce it. So, it is unclear

in precisely what way, if any, patenting my whole genome would commodify me. Perhaps, facts about whether a thing has been commodified are only determined by what happens *after* that thing has been patented.

Deontological strictures only make this one kind of DNA patent impermissible. If any other DNA patents are impermissible, they must be impermissible for consequentialist reasons. The centerpiece of the consequentialist evaluations is a precautionary principle that instructs us to take reasonable precautions against plausible threats. Reasonable precautions are precautions that a person following norms of practical reasoning would take. Threats are construed as hypotheses; plausible threats are then spelled out as live options that deserve further scrutiny and inquiry. Three chapters are devoted to a litany of threats that might arise from DNA patents. They are divided into threats to scientific research, medicine, and agriculture. For each threat, Resnik articulates reasonable precautions. Much of this discussion, however, suffers because the initial precautionary principle is not articulated in sufficient detail. On Resnik's account, whether a reasonable precaution is in the offing depends on what the norms of practical reasoning are; but the norms that Resnik appeals to are not crisply characterized. For example, we are told that "the reasonable person weighs risk, benefits, opportunities, and costs prudently" (page 111). But in precisely what does prudently weighing these things consist? We are not told.

The book's coverage of moral views and morally relevant considerations is wide in scope. However, since the book is just over 200 pages in length and it addresses an issue that is complicated and at such remove from pure ethical theory, this marks a deficiency. Still, it should serve as a useful overview.