A CASE STUDY: THE MONSANTO DECISION

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Monsanto has apparently invested a great deal of money in developing a kind of genetically modified seed that both farmers and society, in general, have considerable interest in using. Monsanto can afford to engage in the sort of research that benefits everyone only if it profits from the research. Whether or not Monsanto profits is also likely to affect the willingness of other industries to engage in the kind of expensive research and development that has the potential to increase the quantity and quality of the resources available to the world.

As of 1996 Monsanto had invested 1.5 billion dollars developing a genetically altered seed that will produce various plants that are pest resistant. The use of such seeds obviates the need to use pesticides that are environmentally problematic. To make its product marketable, Monsanto must sell its seed to farmers for under $32 an acre. However, it seems also clear that for Monsanto to recover its research investment while selling at this competitive price it must find a way to ensure future profits from the sale of its seed. The primary obstacle to Monsanto’s future profits is the possibility of farmers’ collecting seed from the plants produced by the genetically altered seed in order to produce future generations of genetically altered crops without compensating Monsanto.

It seems to us that Monsanto has only two viable options for recovering its investment. The first of the viable options involves an “end-use” fee. Monsanto develops contracts with the farmers who buy its seeds that require the farmers to pay to Monsanto a percentage of the profit they receive from the sale of their genetically altered crops. Presumably, the contract will specify the rights of Monsanto to inspect present and future crops for the genetic signature that indicates origin from the genetically altered seed. Any farmer that buys Monsanto seed could be required to allow Monsanto to inspect their crops for the indefinite future. The collection of seed by farmers, therefore, would not prevent Monsanto from continuing to collect profit from the products of their research.
Given the facts with which we were presented, however, there are at least two major problems this strategy would face. First, there would obviously be significant costs associated with the monitoring of these contractual agreements. These problems are exacerbated when dealing with foreign markets. Foreign countries could easily renge on contractual obligations to allow the relevant inspections that are crucial to the enforcement of the contracts. Second, it seems reasonable to infer that there may be problems tracing the relevant ancestry of a farmer's crop. Suppose, for example, that a farmer initially signs a contract with Monsanto but decides later to abrogate that contract and rely on some other seed. In the meantime, the farmer's neighbor has continued to grow crops that are the product of Monsanto's seed and through no action of the farmer those crops have crossbred with his or her non-genetically altered crop. Monsanto would no doubt suspect that the farmer has reneged on his or her contract but there would be no obvious way in which Monsanto could prove its case. In such a situation Monsanto would be faced with the problematic choice to pursue a potentially costly legal action.

The other viable option, initially more straightforward, is to rely on a technological solution to a practical problem. Monsanto apparently has the ability to further genetically alter their seed so as to render the plants they produce sterile. This would obviously prevent farmers from saving seed—there would be no seed to save. Moreover, farmers who were happy with Monsanto's product and the savings they produced would have no recourse but to continue to buy Monsanto's seed either directly or from Monsanto's licensed seed companies (companies that would, presumably, continue to pay Monsanto a royalty).

What problems does this strategy encounter? There are at least two. First, there is the obvious problem of additional expenditures for research and development. Supposing that these are not prohibitive, there is the additional problem that the sterile plants might interact with the crops of other farmers not using Monsanto's product so as to render the mutated crops sterile. These farmers would obviously be prevented from collecting seeds that they were perfectly entitled to collect. Monsanto would, no doubt, face legal action from these farmers claiming compensation for lost crops.

What should Monsanto do? It seems obvious to us that at this point the answer depends on particular empirical facts to which we have no access. Neither approach seems to us intrinsically unethical. Monsanto as a profit-making corporation and we as a society both have a critical interest in Monsanto's finding a way to make the kind of research they have done profitable. Again, it is not just the well-being of Monsanto that is at stake. We may pre-
sume that other companies will be closely monitoring Monsanto’s experience in order to determine the wisdom of their engaging in the kind of costly research that will potentially benefit great numbers of people. There are potential costs to the two most obvious strategies for avoiding the critical problem of seed collection that might frustrate Monsanto’s attempts to recover its investment. What Monsanto ought to do is determined solely by which of the two options will be most efficient in achieving its goal of making research of this sort profitable. The answer to the question of efficiency rests ultimately on empirical facts too nuanced to be accessible to philosophers from the information provided. If we worked for Monsanto we would be consulting with our legal team to determine their best estimates of the cost of future litigation from the farmers whose crops were inadvertently contaminated by Monsanto altered seed. We would also be researching the costs of monitoring the contractual obligations of those farmers who had agreed to “end-use” fees and again consulting our legal team concerning their best estimate of the cost of future suits against farmers who may (or may not) have reneged on their contractual obligations. It goes without saying that research of this kind should rely heavily on any experience that other companies have faced with analogous problems.

It is perhaps obvious that in addressing the problems presented by this case we have taken a straightforward consequentialist approach. We are not here endorsing consequentialism in ethics (one of us is a consequentialist; one of us is not). But it is important to stress that even those who reject consequentialism as a general ethical theory can hold that certain cases involve nothing over and above consequentialist considerations. Monsanto seemed to have no explicit or implicit contractual obligations with farmers, consumers, or society, more generally, that some deontologists might take to override consequentialist considerations. Further, no sensible deontologist would ever deny that consequentialist considerations might override the kinds of rights, duties, or obligations that do not supervene on facts about the value of consequences. Monsanto has produced a product with potentially great benefits and their ability to profit from their research has, in turn, important ramifications as a precedent for other companies engaging in the kind of research that advances our collective well-being. We all have an interest in seeing that Monsanto finds a profitable solution to their problem.

In recommending a consequentialist approach to Monsanto’s choice, we have left it open as to which particular consequentialist approach Monsanto ought to take. Consequentialists disagree among themselves about which consequences are intrinsically valuable, i.e. have value for their own sake and not merely as a means to something else. In the context of this discussion,
we have relied on a “commonsense” understanding of what has intrinsic value. Another important internal dispute among consequentialists concerns the question of whether it is actual or possible consequences of alternatives open to the agent that determine what the agent ought to do. If one takes into account possible consequences as morally relevant, one obviously needs some mechanism for adjusting the value of these potential consequences for the probability of their occurring. Much of our discussion of Monsanto’s decision focused on various sorts of risk assessment that it would need to undertake in order to reach a rational conclusion about what it ought to do. Possible-consequence consequentialism is a view that lends itself most naturally to acknowledging the relevance of risk calculation (degree of risk being most naturally understood as a function, in part, of probability of harm) to moral calculation.

We as a society might decide to make rules or laws regarding which sorts of risks companies such as Monsanto may or may not take. Then, in the future, companies in Monsanto’s position will have guidelines as to how to proceed. We might decide to have such rules in order to minimize the dangers of leaving such decisions in the hands of individual corporations and also to minimize the costs to corporations of having to engage in extensive investigation of alternatives. A consequentialist would claim that the passing of such laws would be justified or right if and only if the having of such laws has better (possible or actual) consequences than not having such laws. In the decision as to whether to have laws regarding such cases, we as a society must consider all consequences in an attempt to maximize the general good.

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