Special Section: Open Forum

Medical Pharmaceuticals and Distributive Justice

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There are deep structural conflicts between the mission of healthcare as cooperative care to the sick and injured and that of healthcare as a business whose mission is maximizing profits. These conflicts come to the fore in the medical pharmaceutical industry. I first set these out in a context that addresses the mission of healthcare, then examine the relative roles of competitive and cooperative systems of distributive justice, and then argue for the creation of nonprofit pharmaceutical companies and the transformation of many for-profit companies into companies subject to public oversight and profit curbs. The recommendations are aspirational for the United States (because it does not yet offer universal health coverage) but it is meant to be action guiding for those industrialized countries wealthy enough to provide universal health coverage.

The Conflict between Cooperative and Competitive Models in Healthcare

From the standpoint of physicians and medical caregivers, the mission and worldview of medicine is cooperative and caring.[1] This sensibility comes from the Hippocratic Oath and its modern interpretations that emphasize autonomy and justice along with beneficence and nonmalfeasance.[2] The cooperative and caring model prescribes helping the patient as the primary imperative in the mission of medicine.

A second worldview standpoint is that of the for-profit medical business model that is grounded in capitalism, a competitively based theory. Under the competitive model, healthcare is a business that must turn a profit. The business is situated in an environment of others willing to deliver the same or a comparable product at a better price. Sales and marketing become the engine that drives the machine. Without this mission, the business (particularly if it is stock owned) would not be fulfilling its fiduciary responsibility to its shareholders. The prudential imperative that is at the heart of any competitively driven business model is to operate effectively and efficiently in order to make the largest possible profits. This model exists as the mission of some hospitals, medical equipment suppliers, and medical machinery providers, as well as pharmaceutical companies.

It is obvious that these two worldviews, the cooperative/caring model and the competitive/profit-driven model, can often be opposed and advocate different outcomes.[3] This is because one puts people before all else, whereas the other puts profit before all else.

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In the United States, the competitive worldview model has, in most cases, taken over the healthcare system such that the mission of providing healthcare to as many people as possible as a basic human right has been compromised.[4] This is not true of most other industrialized countries that recognize various international treaties that set universal access to healthcare as a basic human right.[5]

I propose two ways to revise one piece in the healthcare delivery mosaic: pharmaceutical companies. This proposal is most plausible to those developed countries that have recognized all the United Nation's treaties passed on healthcare as a basic human right and already have in place universal access to healthcare. These countries have signified that they embrace the cooperative nature of the healthcare community worldview. Unfortunately, this is not the case in the United States. Therefore, from the point of view of the United States, this essay must be viewed as an aspirational document that points to an ethical *ought* that in all probability won't be considered in the near future (given the current political climate within the United States).[6]

The first step in setting out an argument for a cooperative governing model for the pharmaceutical industry is through considering the theoretical grounding of cooperative conceptions of distributive justice.

Distributive Justice

There are many ways to allocate goods and services to others. What this section does is briefly sketch an interpretation of the worldviews behind five theories of distributive justice: (1) *Kraterism* (to each according to her power to grasp what she wants), (2) Aristocracy (to each according to her inherited "station"), (3) Capitalism (to each according to her valued work), (4) Socialism (to each according to her need), and (5) Egalitarianism (to each equally).

Each of these theories defines an understanding of deserts as it sets forth an allocation formula.[7] There are, of course, many versions of these theories, and each of these theories presents different personae. However, we can simplify things by creating further subgroups: (A) Competition (Kraterism and Capitalism), (B) Cooperation (Socialism and Egalitarianism), (C) Aristocracy (a group that can swing either way).[8] It is the contention of this author that there are various levels of goods to which agents may make claims. These range from those most proximate to action to the most remote.[9] Few would disagree that agents feel that those goods most proximate to action (which I term as most "embedded") are of greater value to the agent than any other good. It is for this reason that the most deeply embedded goods, level 1 basic goods, must be treated differently from all other goods. The claims to the goods that enable health (i.e., healthcare) are level 1 basic goods. The claim for these goods is higher than any other class of claim right. To provide these goods to citizens of any society, it is generally the case that some community sacrifice is necessary in the form of taxes. Thus, when distributive justice is thinking about what model to use in bringing about distribution of the level 1 basic goods of agency (in this case the distribution of healthcare to bring about personal and public health), we have the option of adopting the worldview of allocation via competitive, self-oriented profits or via a cooperative, other-oriented worldview. From this standpoint it is abundantly clear that the competitive models

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simply will not do. This is because they are built on an egoistic perspective of carrot and stick. They pose the question to the self-interested agent, "How can I get the most for myself?" This is a question most appropriate to level 2 and level 3 secondary goods (see the list in note 9). I argue this in greater detail in chapter 3 of my *A Just Society*.[10]

If this is correct, then society should consider a new model of distributive justice for healthcare that utilizes distribution formulae of cooperation to provide level 1 basic goods relating to health (and its delivery via healthcare). For delivering level 2 and level 3 secondary goods, an amalgam of competitive theories is most appropriate because there is no cooperative duty for society to provide these goods.[11] This means that industries that have as their mission the production of goods connected with basic goods should adopt a corporate culture aligned to the cooperative theories rather than to the competitive ones. (More on this in the section "Medical Pharmaceuticals" below.) What is also clear in this analysis is that competitive economic systems rely on self-interest and that cooperative systems expect some awareness of the community and the context of social decisionmaking.

It is my opinion that public health policy must not be based on prudential grounds, but rather on moral ones resting on a cooperative strategy.[12] The reason for this is because we all deserve those goods that are most fundamental to our ability to act. This is because "action" most deeply depicts who we are. *Homo sapiens*, by nature, desire to act.[13] In order to act, certain goods of agency must be present. These enabling goods of agency have been variously termed by others as primary goods, basic goods, capability sets, and so on.[14]

Those philosophers who ground all moral duties in action theory and legitimate right claims include the generally accepted maxim that valid claim rights imply correlative duties.[15] If this is correct, and if legitimate rights claims and duties are correlative, then any particular person in the society can say, "I have a right to health (facilitated by healthcare, for example) against the people of the United States (or relevant country or international organization) in virtue of the deontological rights-based system here advocated."[16]

This is all very compressed, but this theory section argues that morally legitimate claim rights are connected to the fundamental conditions of human action (because action is what we value most beyond all else). Because healthcare facilitates individual and public health (a level 1 basic good to action), then all citizens of any society have a strong claim right against their society (or relevant international body) to provide them with healthcare. This entails a strict duty that is modified only by the caveat of "ought implies can."[17] Industries whose mission it is to provide goods that are level 1 basic goods should adopt a cooperative model of distributive justice and not a competitive one (whether they are governmentally or privately run).

Current Models for Distributing Medications

This section briefly surveys how market (competitive) models and regulated (cooperative) models are faring in selected sections of the industrialized world that offer universal healthcare. The approach will be necessarily broad and suggestive.

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Market-Based Strategies

Even in systems that have universal access to healthcare there is a problem with the escalating costs of pharmaceuticals. There are two basic responses to this problem: (a) clinical controls via managed care, and (b) increased co-pays to patients. In the case of clinical controls, there is some evidence of limited success when the rationing agents are the primary care physicians.[18] However, because most physicians are more interested in their patients' health than in the insurance company's or the national health service's bottom line, these measures are less effective than using increased unit pricing at the co-pay level. The principle of economic price elasticity works as a factor to lower costs by lessening the number of patients actually filling prescriptions.[19] But there is a distributive justice issue in this solution. Those most in need will bear the burden of increasing co-pays for medicine and simply not fill their prescriptions. Those most affected by this policy are children.[20] Because there is a relationship between filling and taking prescriptions and general health,[21] it seems that controlling pharmaceutical costs through increased co-pays will have the effect of causing harm (ill health) to those most vulnerable: the poor and children—even in countries with national healthcare.

Others have suggested a balance of market-based strategies and government controls based on benchmarked reference pricing of comparable countries.[22] The data are not yet in on whether the most effective market-based strategies should focus on the patient or on the companies themselves. I favor the latter on the principle that savings gained from the former violate the advocated model of distributive justice.[23]

Cooperative-Based Strategies

The cooperative strategies seek to take the profit motive out of medicine because it is out of sync with its fundamental mission. Rather, what is advocated is a model that seeks (a) to encourage traditional for-profit pharmaceutical companies to accept government oversight in return for guaranteed, modest returns, and (b) to encourage the creation of nonprofit pharmaceutical companies.

In the United Kingdom, the National Health Service (NHS) has moved toward option a.[24] By moving toward regulation of company profits (for sales to the NHS), one seeks to control prices at the source. So often companies have obscure pricing justifications that have nothing to do with actual costs of production.[25] By separating pharmaceutical production from the market model, the NHS seeks to reimburse companies fairly for actual costs of production, research and development (R&D), and other legitimate costs—along with a modest rate of return. This model has been operating for only a few years in the United Kingdom, so it is too soon to assess its empirical success. But from the standpoint of distributive justice (as advocated in this essay), it is already a success.

Option b is even more radical. It calls for the creation of nonprofit pharmaceutical companies. For this dream to become a reality, support from government and nonprofit philanthropic organizations is a necessity. One model of such an organization is One World, a new nonprofit pharmaceutical company

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(since 2001)[26] that has as its mission (1) identifying new medicines for diseases disproportionately affecting poor countries, (2) assessing the safety and effectiveness of medicines for patients, (3) honoring ethical research standards, (4) establishing collaboration with partners to produce medicines, and (5) ensuring the affordability of medicines to its prospective patients. One World has been supported by major grants from the Bill and Melinda Gates Foundation in 2002, 2003, and 2005 (among others).

With such cooperative, public support, the model for nonprofits in the pharmaceutical industry can grow.

Medical Pharmaceuticals

The fourth part of this essay examines the two proposed models in light of the practical and theoretical proposals set out in the first three sections. Comments will be directed through the subsections "The Social Responsibility of Pharmaceutical Companies," "Research and Development," "Patents," and "Fair Pricing in the Third World."

The Social Responsibility of Pharmaceutical Companies

As has been asserted earlier, healthcare is a basic good of agency for all people everywhere. Because basic goods of agency entail legitimate moral rights according to the argument on the "Moral Status of Basic Goods"[27] each person on earth has a legitimate moral right to healthcare subject only to the caveat of ought implies can. Because of the correlative nature of legitimate moral rights claims and duties, it follows that those in the "business" of providing healthcare have a duty to provide it to all according to an allocation formula that is cooperative. This requires that companies engaged in healthcare delivery be governed by an institutional ethos of the cooperative theories of distributive justice. What would this mean in the day-to-day operations of the company and to its strategic direction? It is my contention that the public interest is best served if the United States (aspirationally) and the other industrialized nations (that already have universal health coverage) enact laws that *promote the creation* of nonprofit pharmaceutical companies and *encourage the conversion* of present competitively oriented for-profit companies into publicly regulated companies that, in return for allowing regulation, are permitted a stable and modest profit.

These two changes are based on altering the mission of pharmaceutical companies from the competitive to the cooperative worldview standpoint. Several consequences would follow from this.

First, a company that is grounded in cooperation understands that the mission of healthcare requires a commitment to excellence and to maintaining a social contract with its customers: the people living in the world. Excellence requires a commitment to safe and clean conditions in the laboratory and in the factory.[28] Excellence requires that the company never skimp on clinical trials or try to rush a drug to market by "touching up" the data.[29] These are clearly delineable cases of meeting the *caring ethic* of healthcare's mission.

Second, it means that the company must see itself (and create a corporate culture) that recognizes itself as a cooperative member of the community. This

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is because of the cooperative dictate of its mission that is linked to dealing with the basic goods of agency. Any company dealing with these concerns *has a duty* to be cooperative. But what does it mean to be a cooperative member of the community? It means that at the level of corporate worldview, the company seeks out a social discourse that allows it to ascertain how it can best contribute to the various communities in which it is a part: the place of its incorporation, the place of its factories, the states and countries in which it has a physical presence, and then to potential clients of its product everywhere.

Third, a pharmaceutical company has a duty to seek out legitimate human needs and to seek resources to fulfill that need in the most effective manner *for those in need* (in the case of nonprofit pharmaceutical companies) and including "at a *reasonable* return on profit (in the case of modest profit companies)"—but not beyond.[30]

The efficiencies of this system would occur at the points of inefficiencies in the present system. For example, research and development teams could be larger in nonprofits and publicly regulated for-profits because of tax credits and synergies with other nonprofit and publicly regulated entities (such as research universities and recipients of federal grants).[31] Because everyone (except those traditional, for-profit pharmaceutical companies who do not choose to transform themselves) in this new universe is more fully working for the public good, the sharing of information would no longer be a competitive trade secret. This because the goal is no longer creating a patent by which endless rewards will follow. Scientists could act in cooperation with other scientists in this new breed of drug company and this would mean that they could share research plans. This would breed an efficiency that would be considered criminal collusion under the present market-based competitive model.

Such cooperative planning might allow for work on neglected diseases and various strategies for the modalities of treatment: drugs, vaccines, and diagnostics.[32] Further, it would be superior to the present public–private partnerships (PPPs) that now exist (see below).

All of these policies are directed at making the drug company's corporate self-interests minimal and showing to the world that its cooperative interests, as a part of the community, are considerable. This would do a great deal to enhance the acceptance of drug companies in the community.

Further, one cannot expect one's employees to exhibit care and sympathy to others if the corporate culture of their company belies such attitudes. For this reason the pharmaceutical companies should strive to maintain a very worker-friendly environment that exudes trust and the expectation that its employees will mirror the company's attitude in the way they do their jobs: from the receptionist to the researcher to the marketing team. Each segment must be assured that the company puts people and their health needs first. Other current corporate goals, such as establishing market share, gaining key patents, and aggressive marketing campaigns, will change. This is because the entire nature of the enterprise has changed. The companies' mission will always be subservient to the goal of providing basic goods of agency in a caring and sympathetic manner. The company cannot say, "Nice guys finish last" but must instead declare that "We will be one of the nice guys and will not vary from that—no matter what."

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Creating the right sort of corporate culture that is worker friendly and that fosters concern for its clients as more than just sources of potential revenue is also justified by the social medical contract. Medicine exits for the sake of helping society. For this reason, the profession needs to establish an interactive relationship with society in order to understand what society wants and needs. These concerns should drive policy and day-to-day operations.

Now some would say that the interactions of the capitalist marketplace perform this task already. They would say that consumer choices in the healthcare marketplace facilitate such interactions. However, it is my position that such a position is false. This is because the acquisition of basic goods is unlike lower level secondary goods (which are amenable to the econometrics of consumer choice). Basic goods are needed *in such a unique fashion* that they can belie even common law itself—as in the case of a man who steals a loaf of bread to stave off starvation. One reason for this is that when one is lacking a basic good of agency, she is not fully capable of acting in a voluntary fashion and so is not fully culpable for what she does. In such a situation it would be absurd to posit the model of the so-called rational consumer, operating in the perfectly fair marketplace of capitalism. What is really the case with those lacking the basic goods of agency is a picture of a desperate individual fighting for survival and who may do anything to maintain life.

Edmund Pellegrino has said that *care* is essential in medicine because the patient is at a severe disadvantage because of his physical need.[33] This disadvantage makes the patient dependent on the healthcare provider in such a way that, without the presumption of care, the individual might be subject to severe exploitation.

For these reasons, healthcare industries (such as the pharmaceutical industry) should not act as other businesses, which are engaged in the delivery of secondary goods. Instead, they must strive, through their mission and its resulting corporate culture and policies, to create an environment of trust and care that might be exhibited to those who depend on their products in order to be whole.

Research and Development

As mentioned earlier, the (nonprofit plus for-profit with public oversight) amalgam would realize various efficiencies over the present system due to tax incentives, lower profit cost projections, and greater cooperative sharing of information within the scientific community. Far too often, pharmaceutical companies put on their capitalism hat and act as if they were just like any other manufacturer of secondary goods. For simplicity, let us call these companies "bonanza companies." Because the healthcare area is concerned in the delivery of basic goods, it can never authentically take on the bonanza attire. This disposition makes a great deal of difference. For example, many drug companies decide that if a particular type of drug is popular, they will develop a so-called me too drug. This me too drug may not actually be needed by those people who the company (by its social contract) is bound to serve. For example, when I was making this point recently at a university where I was lecturing, a prominent writer on healthcare ethics rose to her feet and said, "You mean that we don't need a fifth drug to cure erectile dysfunction?"

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The point was well made. So often a drug company sees a profitable market segment and decides that it would make more sense to invest in a proven winner than to risk R&D on so-called orphan markets (those with very few paying customers). This is the bonanza mentality that has already been discredited.

Now some will say (in favor of me too drugs) that the market favorites might fall out of favor with regulatory agencies (such as the FDA, which recently has taken most Cox II inhibitors off the market).[34] In such a situation the back-up drugs may become the front line drugs because they do not have the alleged side effects.

To an extent this may be true, but it is really a rather extenuated argument based on various *possible* contingent sets of events. There are too many critical drugs that are needed right now, such as an AIDS or malaria vaccine. These drugs are more important (based on the table of embeddedness) than building undue pharmaceutical redundancy. The social contract between the healthcare industry and society demands that drug companies cease saturating the marketplace with me too drugs and instead seeks some sort of planned response to the wide array of pharmaceutical needs that exist right now.[35]

This might entail the intervention of government—or rather governments—because health problems can cross over national borders (especially in the case of infectious disease). This proposal, after all, is meant to apply to all nations that provide universal access to healthcare and aspirationally to the United States. For these incentives to work in the creation of nonprofit pharmaceutical companies and the conversion of bonanza for-profit companies into modest profit corporations with public oversight, it is necessary to have the wealthy countries of the world behind the proposal.

The intervention of the international community in the affairs of a private company cannot be one-way. If an existing bonanza pharmaceutical company agrees to transform itself to a modest profit corporation with public oversight, then those oversight boards must also look out for the well-being of the modest profit corporation. In return for lower revenues, the drug companies would come under the cooperative oversight of the national and international agencies (such as the FDA and the WHO).[36]

The result of this strategy would be a transformation of the drug industry from highly risky venture capitalism aspiring to the bonanza worldview to a two-tiered system of nonprofits and companies that resemble the model of American utility companies of the 1930s–1970s. These companies were private entities that existed for the public good. They were concerned with essential services. They were allowed a modest, steady rate of return, but not windfall bonanza returns. On the flip side, the society offered to protect the company from economically deleterious choices made in the public's interest. This is the other side of the social contract. It would be available to both the nonprofits and to the for-profit companies with a social mission.

Patents

In today's marketplace, patents are essential to pharmaceutical companies. The patent system protects the discoveries of a company so that an interloper might not jump in unfairly to take advantage. Patents also finance the R&D costs that a company invests in bringing new products to market. Without such protec-

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tions (or so the argument goes) companies would have little incentive to develop new products. Because we all have an interest in new drug products, a fortiori we all have an interest in strict patent protections. But this is controversial.[37]

The system of patents in the pharmaceutical industry can be viewed under the worldview perspective of competition or cooperation. Let's look at it in both ways. First is competition. Under competition, the drug companies have every incentive to make the patent game work to their benefit. This includes attempting to patent everything possible. Now it is true that there is a provision in the U.S. patent law that restricts patents to uncommon ideas. For example, I couldn't file a viable patent request for a dish to catch pencil shavings because most people (who still use pencils) have many ways to do this already that are more ingenious than a mere dish. However, this exception does not always work. At the writing of this essay, for example, there is a patent pending on peanut butter and jelly sandwiches that have the crusts cut off and are layered: peanut butter, jelly, and peanut butter. My mother used to make that for me all the time! And now there is a viable patent proposal from a major company on this very ordinary process.[38] Under the competitive worldview account this makes perfect sense. A company should strive to analyze the rules of engagement and go as close as it can in order to gain maximum advantage of the rule (including subverting the spirit of the law so long as it doesn't entail a large government fine and/or jail time). This is justified via the maxim of the fiduciary responsibility to shareholders. In one real sense, the company, by acting in this way, is subverting the rules governing competition in order to become the winner (until they change the rules, which happens after someone is successful at gaming the system). Such is one of the paradoxes of competition.[39]

Another consequence of viewing patents from the worldview perspective of competition is that there is an incentive to try to patent novel entities. For example, there has been a strong debate over the past few years about whether companies might be able to patent human genes.[40] At first glance this seems absurd. How could a company patent that which it did not produce? Our genetic structure is the result of eons of evolutionary modification. What hubris would permit a drug company to try and market this?

The drug companies, of course, say issues of causality are irrelevant. What are important are the uses of particular nucleotide sequences for their potential employment in genetic engineering.[41] Some companies jumped at this possibility such that it seemed like a gold rush.[42] But then the caveat was added that one must present a plausible account of the function of said nucleotide sequence that is specific and discrete in order to garner a patent. This dampened the gold rush, but it begged the question of who really did the work that allowed the patent claim in the first place. As I said at the beginning of this section, patents are put in place (at lease in part) to encourage research by permitting a limited exclusive license. But in the case of patents on nucleotide sequences (sometimes called "genes"), the overwhelming percentage of this work was done by the U.S. federal government through the National Institutes of Health's Human Genome Project. This project worked at a painstakingly slow pace in order to insure accuracy. After it was 90% done and the results had been put into the public domain, several firms jumped in, did some quick

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guess work, and tried to patent these new findings that presented a miniscule amount of originality.[43] This seems contrary to the intent of the patent system because (1) the reward of an exclusive limited license is not to be granted to a company for work done via public money and made available by the government to the private company, (2) the desert of being granted a patent ought not to be a speculative venture (a company, through its own internal research alone, must be able to claim a particular understanding of the workings of a unique efficacious process). Guess work does not deserve a patent.

Under the cooperative worldview, all of this is different. The nonprofits and newly transformed for-profits with oversight would *share* patents with each other. The mission has been transformed from venture capitalism to cooperative concern for getting drugs to the people who need them most at the lowest possible cost. With individual company ownership of patents out of the way, it will allow planning of R&D so that there is some shared agreement about strategic direction in the approved research protocols in order that research continue broadly and not be proximately based on expected financial return. This will allow research into drugs for diseases that may not be individually profitable, but will serve an important niche in the healthcare delivery system. With planning and protection, the pharmaceutical companies can transform themselves into partners serving the public good without the conflicting interest of constantly trying to achieve bonanza profit levels.

The financial markets might also accept this new paradigm. The nonprofits would be funded via foundations, taxes, and some modest revenue from the sales of their drugs. At the second tier, the traditional utility company model, investors might readily trade expected *growth* for *steadiness* and *certainty*. Such stocks form the "safe part" of the investment portfolio right next to bonds and cash instruments. Thus, there would be a transparency of mission and investor expectation.

Fair Pricing in the Third World

The distribution of pharmaceuticals in the developing world poses a series of problems.[44] For simplicity's sake let us rename the question as distributing drugs to the subsistent societies of the world. Though there are some private distribution schemes (e.g., Médecins sans Frontières and One World),[45] the bulk of help in this area is through PPPs. This generally is set out with large competitive model companies such as Merck and GlaxoSmithKline working on specific problems such as river blindness with *ivermectin* and tackling lymphatic filariasis (a nonremunerative disease target) along with the WHO and UNICEF and some HIV programs.[46]

Part of the problem here is that the drugs can be produced for only a few dollars a dose if a license were given to a country to produce a generic version of the drug for their own consumption. In some instances, certain pharmaceutical companies have been willing to grant an exception to their patent, though this is controversial.[47] However, in other cases, companies have been reluctant to do so because they fear a black market that will undercut the commerce of their product in wealthy societies at a fraction of the price. Under this scenario, the worth of their patent will be useless if it is assailed by an aggressive black market. Then (the companies claim) they will not receive their bonanza return

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on their investment and this dire outcome will have an effect on the R&D for new drugs. Thus (under this competitive worldview approach), the pharmaceutical companies will say that though they are very sorry for the plight of the disadvantaged in subsistent countries (as evidenced by their charity response participation in PPPs), they must first think of their stockholders and maintaining the value of their patents.

Under the competitive worldview, there is some plausibility to the above argument. When one thinks of maximizing shareholder stock value above all else in a competitive environment, then it makes sense to do everything possible to protect it. Though from the standpoint of solving the underlying problems, this approach is lacking.[48] This is because of the cost structure of the competitive model.[49]

However, things change under the cooperative worldview model. Under this model of distribution, the new drug companies are a protected industry. They are either nonprofit or modestly profitable (and in return they will be protected from the upturns and downturns of the competitive marketplace). Because of these domestic and international protections, the major drug companies will be able to grant subsistent countries the right to create generic substitutes that are more affordable. The anxiety of the black market will be lessened because of governmental cooperation on behalf of the companies with public, cooperative missions.

For maximum effectiveness, the major industrial powers (most of whom have already bought into the cooperative model through universal health coverage) might choose to regulate international distribution of pharmaceuticals under the aegis of an international body (such as the WHO) that would work to create a model for establishing incentives for the creation of nonprofit pharmaceutical companies and for transforming traditional pharmaceuticals into protected companies with a cooperative public mission. In this way there might arise a certain international uniformity among most of the wealthy nations of the world. This will serve to protect the companies so that they might better serve the public—both in their own (wealthy) countries and also in subsistent countries.

With such international coordination and planning, it might be possible to mount major attacks on such clearly preventable diseases such as malaria: to once and for all eliminate it from the earth.[50] This would be a boon for public health—not only in the subsistent society, but also everywhere. With the advent of frequent international travel, there is no such thing as "them" and "us." We are all in this together. We should help the subsistent countries because it is right to do so. People have a valid claim to the basic goods of agency. However, it is not entirely altruistic, because doing so will also make the world a safer place for us all.

Conclusion

I began by examining the mission of healthcare and the nature of various theories of distributive justice in order to fashion an appropriate worldview for the medical pharmaceutical industry. With this cooperative public approach, a new model for the industry has been suggested based on a two-tiered system featuring the creation of nonprofit pharmaceutical companies along with in-

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centives for the transformation of current (bonanza-driven) for-profit companies into for-profit companies that act cooperatively and are under public regulation (much on the line of traditional American utility companies: private companies that have a clear public mission). Both tiers of companies will be afforded some protections in return for their commitment toward cooperative research and development strategies, shared patents, and product implementation (both domestically and in subsistent economies). It is my position that such an approach would transform the drug industry in most of the world toward fulfilling healthcare's cooperative mission and put these new pharmaceutical companies on the leading edge of improving public health—everywhere.

Notes

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5. See note 4, Pereira 2004.
6. I believe such aspirational exercises are not futile because they point to directions toward which we should strive; Boylan M. *A Just Society*. Lanham, Md.: Rowman and Littlefield; 2004; ch. 3.
7. It should be obvious that these brief comments are meant to be suggestive rather than exhaustive. There are certainly a large number of worldviews that might spring from each position. Also, the positions themselves require a great deal more exposition for anything aspiring to be a complete treatment. The purpose here is to provide just enough detail so that an examination of secondary good desert might proceed.
8. See note 6, Boylan 2004:ch. 7.
9. Basic goods

Level 1: *most deeply embedded* (that which is absolutely necessary for human action): food, clothing, shelter, protection from unwarranted bodily harm (including health care).

Level 2: *deeply embedded* (that which is necessary for effective basic action within any given society)

- Literacy in the language of the country
- Basic mathematical skills
- Other fundamental skills necessary to be an effective agent in that country, for example, in the United States some computer literacy is necessary
- Some familiarity with the culture and history of the country in which one lives
- The assurance that those you interact with are not lying to promote their own interests
- The assurance that those you interact with will recognize your human dignity (as per above) and not exploit you as a means only
- Basic human rights such as those listed in the U.S. Bill of Rights and the United Nations Universal Declaration of Human Rights

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Secondary goods
Level 1: *life enhancing*, medium to high-medium on embeddedness
- Basic societal respect
- Equal opportunity to compete for the prudential goods of society
- Ability to pursue a life plan according to the personal worldview imperative
- Ability to participate equally as an agent in the shared community worldview imperative

Level 2: *useful*, medium to low medium embeddedness
- Ability to utilize one's real and portable property in the manner she chooses
- Ability to gain from and exploit the consequences of one's labor regardless of starting point
- Ability to pursue goods that are generally owned by most citizens, for example, in the United States today a telephone, television, and automobile would fit into this class.

Level 3: *luxurious*, low embeddedness
- Ability to pursue goods that are pleasant even though they are far removed from action and from the expectations of most citizens within a given country, for example, in the United States today a European vacation would fit into this class
- Ability to exert one's will so that one might extract a disproportionate share of society's resources for one's own use.

10. See note 6, Boylan 2004:ch. 3.
11. See note 6, Boylan 2004:ch. 7.
12. Boylan M. The moral imperative to maintain public health. In: Boylan M, ed. *Public Health Policy and Ethics*. Dordrecht: Kluwer; 2004:xvii–xxxiv.
13. My argument for this is as follows:
    a. Before anything else, all people desire to act: fact
    b. Whatever all people desire before anything else is natural to that species: fact
    c. Desiring to act is natural to *homo sapiens*: a,b
    d. People value what is natural to them: assertion
    e. What people value they wish to protect: assertion
    f. All people wish to protect their ability to act beyond all else: a,c–e
    g. The strongest interpersonal "oughts" are expressed via our highest value systems—religion, morality, and aesthetics: assertion
    h. All people must agree, on pain of logical contradiction, that what is natural and desirable to them individually is natural and desirable to everyone collectively and individually: assertion
    i. Everyone must seek personal protection for her own ability to act via religion, morality, and/or aesthetics: f,g
    j. Everyone, on pain of logical contradiction, must admit that all other humans will seek personal protection of their ability to act via religion, morality, and/or aesthetics: h,i
    k. All people must agree, on pain of logical contradiction, that because the attribution of the basic goods of agency are predicated generally, that it is inconsistent to assert idiosyncratic preferences: fact
    l. Goods that are claimed through generic predication apply equally to each agent and everyone has a stake in their protection: j,k
    m. *Rights and Goods are correlative: assertion*
    n. Everyone has at least a moral right to the basic goods of agency and others in the society have a duty to provide those goods to all: l,m

    Obviously, this presentation is quite compact. For those wishing a more comprehensive presentation, see note 6, Boylan 2004:ch. 1–3.
14. Gewirth A. *Reason and Morality*. Chicago: University of Chicago Press; 1978:53–8; Shue H. *Basic Rights: Subsistence, Affluence and U.S. Foreign Policy*. 2nd ed. Princeton, N.J.: Princeton University Press; 1986:15ff; Rawls J. *A Theory of Justice*. Cambridge, Mass.: Harvard University Press; 1971: sect. 15; Sen A. *Inequality Reexamined*. Cambridge, Mass.: Harvard University Press; 1992:ch. 3; see note 6, Boylan 2004:ch. 3.
15. The logical structure of this duty is "X has a right to Y against Z in virtue of M," where X is a person, Y is a good of agency, Z is a person or group, and M is the legitimating moral institution. In this case the rights claim infers the duty of "Z has a duty to provide X with Y in virtue of M." This argument is an embellishment of Hofeld W. *Fundamental Legal Conceptions*. New Haven, Conn.: Yale University Press; 1919. I give my commentary of this in Boylan M. *Basic Ethics*. Upper Saddle River, N.J.: Prentice Hall; 2000:89, 102.
16. I might note that in this instance there are others who recognize this right, for example, The United Nations Universal Declaration of Human Rights.

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17. See note 6, Boylan 2004:225, 240, 245.
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23. Compare Sketris I, Bowles S, Manuel R. Canadian public policies and practices related to drug prices, utilization and expenditures. *Journal of Pharmaceutical Finance, Economics and Policy* 2003;12:23–54.
24. Taylor D. Regulating the prices and costs of medicine in the United Kingdom. *Journal of Pharmaceutical Finance, Economics and Policy* 2003;12:235–60; Houlton S. When is enough? *Pharmaceutical Executive* 2004;24:42; Slinn J. Price controls or control through prices? Regulating the cost and consumption of prescription pharmaceuticals in the UK, 1948–67. *Business History* 2005;47:352–66; Walley T, Mrazek M, Mossialos E. Regulating pharmaceutical markets: Improving efficiency and controlling costs in the UK. *The International Journal of Health Planning and Management* 2005;20:375; Walley T, Earl-Slater A, Haycox A, Bagust A. An integrated national pharmaceutical policy for the United Kingdom? *British Medical Journal* 2000;321:1523–6.
25. An example of this in the United States was mentioned to me by Jonathan Brown, whose son was saved from death in infancy by a single drug dose that was billed at $25,000 per dose. Dr. Brown, who is a federal economist, told me that the pharmaceutical company justified its pricing on the basis of the cost of an intensive care stay ($5,000 a day). The child's condition would normally have required 7–10 days; thus, from the insurance company's perspective, $25,000 was a bargain!
26. Institute for OneWorld Health: A Nonprofit Pharmaceutical Company. Available from: URL: www.oneworldhealth.org, accessed Jun 12, 2006; Stix G. Making drugs, not profits. *Scientific American* 2004;290:42.
27. See note 13.
28. This was made very clear by the recent case of the possibly adulterated flu vaccine that had been purchased by the United States; Brown D. How the U.S. got down to two makers of flu vaccine. *The Washington Post* 2004 Oct 17.
29. Vogel G, Profitt F, Stone R. Ecologists roiled by misconduct case. *Science* 2004;303:606–9.
30. The concept of a reasonable profit is somewhat controversial. For example, some say that "reasonable" is defined as a willing seller meeting a willing buyer. But this smacks too much of the laissez-faire interpretation of capitalism (a competitive theory). Rather, I promote much more modest goals. For a discussion of this see MacDonald R. The cost to global health of drug company profits. *Western Journal of Medicine* 2001;174:302–3; Maitland I. Priceless goods: How should life-saving drugs be priced? *Business Ethics Quarterly* 2002;12:451.
31. Compare Kneller R. Autarkic drug discovery in Japanese pharmaceutical companies: Insights into national differences in industrial innovation. *Research Policy* 2003;32:1805; Lovrich J, Kobayashi T. Empirical study on the productivity of intangible assets in the Japanese pharmaceutical industry. *Osaka Economic Papers* 2003;53:163–82.
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33. See note 2, Boylan 2000:23–36.
34. See http://www.nih.gov/news/pr/dec2004/od-17.htm, last accessed May 19, 2006.

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35. Of course, it should be acknowledged that bacteria and viruses do mutate so that we never want to rely on a sole drug to treat malaria, but this issue is best addressed in a cooperative rather than a competitive setting.
36. See Sherman PB, Oakley III EF. Pandemics and panaceas: The World Trade Organization's efforts to balance pharmaceutical patents and access to AIDS drugs. *American Business Law Journal* 2004;41:353–411.
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38. The details can be found in J.M. Smuckers attempt to patent. *Seattle Times* 2005 Apr 9. Available from: URL: http://seattletimes.nwsource.com/html/food/202236171_pbjpatent09.html, last accessed Jun 1, 2006.
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