THE MEANINGS OF MONEY

being Chapter Nine of
A GENERAL THEORY OF VALUE

We have made several forays into understanding money in these pages, most extensively at the end of Chapter Seven. After our analysis of markets in the last chapter, we stand ready to make another, more conclusive expedition. We are not going to develop another "quantity theory of money," like that in standard economics, but rather a "choice theory of money," one that might offer richer intellectual pathways from theoretical economics to computation, evolution, psychology, and social psychology, as well as to daily experience.

We start by looking at the buyer whose chief intention is to *re-sell* the good(s) he or she has bought at a later time in the same marketplace or else in another marketplace.[1] We look into resale because a discussion of logic and psychology of resale will bring us by stages to what I hope is a deeper understanding of money and its effect on us. I will argue that money, far from being transparent or magical or "meta-" in its relationship to other goods, far from being merely a "medium of exchange" or a "unit of account" as textbooks have it, is a good in its own right: better to have than to not have, and clear in its use. Money is a "store of value" too, as textbooks say, but with little similarity to other stores of value like a freezer full of food, a parcel of land, or a body of knowledge. Rather, money is the token whose chief value lies in its capacity to confer freedom upon its owner in the context of others' property rights, offering and precipitating choice precisely because it is so widely exchangeable, so easily resellable.

Nevertheless, money's value, like that of all tokens, depends on token trade lower in the stratigraphy operating with proper intensity and felicity.[2] In the absence of this, money is worth either not enough or too much. For without a robust economy of non-money tokens in place—tokens of legitimacy, for example, or approval, or confidence—one of two things is apt to happen: either money disappears and with it the substantial freedoms offered by fluid and orderly marketplaces, or else the very opposite: money becomes the *only* token that "talks," usurping the functions of all other tokens. In this case, money offers too little value to those who have it in quantity and too much to those who don't.

We will want to know: Is the love of money the root of all evil? I will answer: Yes and No. When the "love" referred to is simply an expression of our desire for freedom, it is laudable. It becomes problematic only when the freedom offered by having money is enjoyed while one is inadequately satisfied in one's lower needs, or when the freedom is exercised at the expense of other people's freedom, without their prior consent.[3] No, true evil comes from another direction: from a "love" of simplicity-and-disorganization, which is anti-life—negative $\Delta\Omega$. Only when money is used to promote greater simplicity-and-disorganization can we say it is accomplice to "evil." This is an abstract assertion about an emotional topic, but true in the context of our general theory of value. We will explore it further later in this chapter, and again in the next.

In this chapter we will also ask: how did money come to be so prevalent, the apparent "king" of tokens? From an understanding of this story, can we make better judgments as to what should and should not be for sale? (Some things are cheapened when they enter the marketplace. In what sense are they "cheapened"? Others are not. What makes the difference?) Do market-intensive, highly monetized economies produce enough "freedom worth wanting," to use Daniel Dennet's phrase, or should we long for a more socially-oriented, kinship-, friendship-, and loyalty-based system of exchange? Does money organize social life or tear it apart?

Can our theory of value shed light on people's conflicted feelings about money and their often-irrational dealings with it? How do attitudes towards money differ between the poor and the rich, between the shopper and salesperson, the gambler and the investor?

Our theory of value can shed light on all of these questions.

But first, what is money? "Money...is a device that facilitates the working of markets" wrote John Hicks, who proceeded, accordingly, to examine the nature of markets before he offered his theory of money.[4] C. A. E. Goodhart's exhaustive *Money, Information, and Uncertainty* follows the same logical course: first a review of market processes, beginning in barter, and then a discussion of the inherent efficiencies provided by using money as the medium of exchange and unit of account in markets.[5] Economic exchange begins in barter: your two goats for my cow, her bale of hay for his fixing of her roof. The invention and use of money made the process of barter more efficient. Money allows one to "store" value long enough to find what one wants: one sells one's goats for money, and then the money for...whatever, perhaps a cow, perhaps a hammer; perhaps today, perhaps tomorrow. More efficient? No: not if what you want is right there just then, when you want it, and at a fair (barter) price. But Yes: as the complexity of one's needs increases, as the complexity of goods increase, as the number of producers and consumers increase. Now exchange using money is more time-efficient and more free.

Where exchange is very limited and where accountability is intra- or interpersonal, money would not be required. In order for money to be of use, we must have not just one, but many and various ways to spend it, in amounts that can be metered finely enough to make whatever distinctions we want to make between the qualities or quantities of particular goods and between our varying degrees of need for them. The payment of money must also satisfactorily settle debts between people who have little interest in each other beyond the advantages of the trade at hand.

Money must be plentiful and yet finite (or very slow-changing) in total quantity; it must be long-lasting (if physical) and always finely divisible. Across the domain of its use there must also be an acknowledged authority, founded ultimately on violence, that controls its manufacture and warrants its efficacy, even when that authority is shared with nature (as when the currency is gold or diamonds, cows or cowrie-shells).

Money cannot rest for long. Rarely spent where it is earned, money *must* change hands, wander, circulate. It is bought only to be sold, sold only to be bought: bought with one's goods or work to be sold to others for their own, sold to others so that their goods or work can become ours to enjoy. When one *enjoys* spending money, one is consuming it as surely as a car consumes gasoline, yet wastelessly: the money goes on to do the same for the next one who spends it...

Now, it is odd to say that money is "bought" and "sold." These two words seem to *presume* money, not describe it. We use them when money *is* one of the goods in exchange. That is to say, item-X for item-Y is a swap or barter; but item-X for *y-dollars* is a *sale.* We will adopt this convention when we discuss the resellable good below, but we should not allow this convention to blind us to money's continuity with goods in general. After all, it is only money in the form of *cash* that is perfectly exchangeable, that seems to leave the realm of ordinary goods and become pure fluidity, liquidity, freedom, choice. In real life, most sums of money are packaged and marked, budgeted and stored, signed-for and recorded. These markings, these assignments, limit the freedom that would have been conveyed by the "same" money as cash, but they also contribute importantly to the very nature and efficacy of the sum of money. They contribute a necessary degree of *organization.*

We explore these ideas further in this chapter. The purpose is less to re-write economic law than to understand it, less to revise economic practice than to see how rich in cultural and moral implication the "world of money" is when seen through the lens of our theory of value.

We begin with the idea of the resellable good.

I. The Resellable Good

Imagine a spectrum of goods, arranged along a scale of their resellability, as shown schematically in Figure 9.1. At one end of the spectrum lie goods whose purpose by design *is* easy resale—stock, options, futures contracts and other financial products that are bought and sold speculatively (rather than for any dividend they might return over time). We can call them collectively, as they often are, *securities*.[6] Securities can be quickly converted into and from cash. They are not used up; they do not wear out like shoes (although some "expire" at precise times). Nothing creative is done to them or by them. Although one can enjoy just *owning* them, their present value is simply the prospect of their profitable resale.

Figure 9.1 The spectrum of resellability (typical; particular goods may move left and right somewhat, depending on intentions and contractual arrangements.)

At the other end of the spectrum lie goods whose reason for being is the immediate pleasure they afford in the complete physical consumption of them at or near the point of purchase. Paragon among such goods perhaps are "street foods"—pretzels, cotton candy, hot dogs—paid for and wolfed down then and there. But nearby on this spectrum would lie all so-called consumer goods like common grocery items, clothing, drugs, gasoline, etc. These goods effectively disappear when consumed, like food or firewood (both of which, in giving up their value, are chemically transformed into low-organization waste), or, if they are not literally consumed, become so worn out or used that they have little or no re-sale value.

Between these poles lie goods whose purpose is partly pleasure-in-use and partly profit-in-resale, e.g. houses, land, and artworks that typically appreciate over time, or goods that typically depreciate over time (and with use) but where recoupment of some significant part of their original cost can be expected in resale, e.g., automobiles and jewelry. Let us call them all *hybrid goods.* What is interesting about hybrid goods is the vacillation they induce between the two valuational perspectives we discussed in Chapter Eight, namely, that of the producer-seller (modeled by Equation 8.3) and that of the consumer-buyer (modeled by Equation 8.4). Since the buyer of a hybrid good will likely be a seller of that good later on in a "secondary market," the question at the point of original purchase is: which of the two perspectives will dominate? We might wonder: is the *design* of hybrid goods necessarily a matter of compromise between designing to maximize (a) pleasure-in-use and (b) resale value? And what about people whose *job* it is to buy and sell the same goods: do they prevaricate when they display affection for their temporary wards?

We will treat these questions in a moment. First, we need to complete our characterization of the goods that lie on the spectrum of resellability with a type of good related to hybrid goods: I mean *capital goods* such as land, farm animals, fruit trees, tools, machinery, workplaces, business software, or vocational/professional training (which is human capital). These goods are acquired and valued almost entirely for their capacity to help produce income from selling not them*selves* but what they help produce: rent, milk, apples, gadgets, coordination, significant numbers, or knowledge. I say "valued almost entirely..." because capital goods, like hybrid goods, can offer considerable pleasure-in-use, and when they do so it constitutes part of their value. Although the rancher, for example, is unlikely to value all the same traits in a horse that a horse-fancier would, he is nonetheless likely to admire and enjoy owning a good horse, and he may become quite attached to the animal. Similarly, the brewer may appreciate the gleaming copper tanks in which his beer is fermenting even though his chief purpose in having bought the tanks (rather than plain steel ones) had to do with impressing visitors to the brewery and increasing sales. And just as a traditional craftsman takes care of his tools not just so that they will last, but because he enjoys the way they look and feel and because he appreciates the design and craft that went into them, so a new laptop computer is not merely a "capitalist tool" (as IBM used to say of its ThinkPad line, and as Malcolm Forbes had labelled his magazine years before that), but fun to own and use. Ditto with handsome and comfortable workplaces.

But note: in highly competitive market economies, valuing capital goods for any pleasure they might afford in using them is regarded as legitimate (by business owners) only to the extent that such pleasure increases productivity. Otherwise it is considered a sentimental and superfluous factor, apt to run up costs and eat into profits.

With this last, not-uncommon observation, a larger clash of values comes more clearly into view: as *producers*, most people want to work in pleasant surroundings, with people who really know what they're doing, and with up-to-date, pride-inducing tools. As *consumers* however, most people do not want to pay the costs of *other* people's "undue" enjoyment of their workplace, workmates, or tools. Nor, for that matter, do most people want to pay—with reduced wages, say—for their *own* enjoyment of work. Most people would rather suffer deadening workplaces, ignorant co-workers, and makeshift equipment, than take home less money—money which is often spent on activities whose underlying function was to help people recover from, or forget, the discomforts and indignities of their job. How could such a system ever make sense? How do markets come to be so highly competitive that, with impunity, they can strip almost all pleasure from production processes, tools, and places—which is where most of us spend our waking hours—and have us acquiesce? Have the pleasures of consumption and choice so outweighed the pleasures of production and commitment?[7]

It would seem so. And the culprit, if that's the right word for it, is our long national obsession *not* with the pleasures of consumption—Americans are not, by and large, hedonistic—but with *freedom itself:* freedom in the form of leisure time, physical mobility, indulgence of impulse, and, most important of all, having enough money to deliver all these goods through exercising choice as a consumer. What is *work* for most people, after all, if not the semi-voluntary giving up of one's freedom now to gain more, later, in return?

The similarities and differences between "production" and "consumption" can be appreciated more deeply in terms of Ω, as illustrated by the following diagram (Figure 9.2).

<u>Figure 9.2 How both production and consumption produce value, i.e., change in complexity-and-organization, Ω</u>

When it comes to value, which is change in Ω, production and consumption *as processes* are quite on a par. In production, raw materials, labor, and information (all "factor inputs") are combined to produce two outputs: *goods,* which are more complex-and-organized than the uncombined factor inputs, and *waste*, which is less complex-and-organized. At the same time, the process itself changes the complexity-and-organization of the produc*er*, be it a firm, an individual, or a network of programmable computers and machines. If that complexity-and-organization increases, then the producer experiences (positive) value: he, she, or it evolves, grows, develops, is happy, becomes more able to produce better goods or more goods. If, on the other hand, his/her/its complexity-and-organization *de*creases, then the producer is diminished in all the above ways and capacities. It was Ruskin, I think, who said we should value capital goods not for what they make *for* us, but what they make *of* us. Marx and Ruskin here resonate. Their common concern, in our terms, was to convince capitalists that production processes should be configured so as to increase the Ω of all the *people* involved in production, and not, or not only, of the goods they make. It follows that the more (and better) are the freedoms offered by the workplace, the less will be the demand for the freedom offered by shopping for consumer goods. (And the less, too, would be the demand for higher wages and salaries.) It is the combination of a mythology that idealizes freedom with an economy that actually produces boring and rule-bound jobs, that keeps America the impatient, money-interested, escape-loving consumer society it is.

Back to Figure 9.2. With *consumption*, a similar pattern holds. Goods are enjoyed when the complexity-and-organization of the consumer is increased, this in ways and for reasons we have discussed throughout this book. As in production proper, waste is produced. It is important not to overlook, however, that the consumer also produces and "exports" something quite valuable, namely displays of his or her happiness (or sorrow). Such displays are an important informational output of consumption. They are a valuable commodity. Indeed, *happiness-display is a form of production in its own right* since it educates and guides other potential consumers towards the producer-sellers who provide the goods of most value. It is a wise producer-seller-marketeer who knows how to capitalize on the value of his customers' outputs. It is a smart (and rare) consumer-buyer who learns to control and profit from his or her skill at displaying happiness.[8]

Traders, middlemen, and merchants.

The person who buys to re-sell and not to consume neither produces the good nor enjoys it. He merely holds it, moves it, passes it along. Why then does he deserve a profit?

Answering this question rationally and memorably is peculiarly important, since for centuries antipathy towards the merchant, the wholesaler, the trader, the arbitrageur—middlemen all, who seem to do nothing to the good in question—has been the rule. The antipathy comes from both sides, the consumer-buyer's and the producer-seller's. Both could save the expense of using a middleman...provided they could find each other in the first place and get the good transported themselves. And of course, this *is* the answer to why middlemen have value and cannot be eliminated. Middlemen are market *makers.* They fall into the class of producers because, together, they *produce the market itself*, i.e., the rules, venues, and occasions that bring producers and consumers together. They are brokers and more: they risk ownership and storage of a certain selection and quantity of goods, holding them for buyers' choiceful approval. They also often organize or provide the physical transportation of the goods. They make informed decisions. The value that merchants add—the value they *produce* as surely as anyone else "produces value"—is part and parcel of the alchemy of exchange, which starts with the bringing together of people with complementary needs and goods-to-offer at a better place or time for each of them than would otherwise have been possible.[9]

Technically, then, the value of what traders, merchants, and middlemen *do* to deserve a wage or a profit is no mystery at all.

Emotionally though, and historically, it is a different story.

Antipathy for the merchant and trader classes, the low status of salesmen, hawkers, wholesalers, shopkeepers, and even anyone in the "import-export business," has come evenly from all social quarters: from propertyless peasants to propertied aristocrats, from laborers and artisans, from capitalists, clergy, and soldiery, from intellectuals, artists, statesmen, consumers, and even, faintly, from economists to this day. To what is this due? An ancient racist mistrust of Phoenicians? Of Jews? (Of Ferengi?) Pretensions to nobility by all? Or just the widespread historical underestimation of the importance of information and organization *per se* in creating wealth through making markets? (Here I exempt economists from naïveté.) Market making is, after all, a rather abstract affair compared to the obviously mechanical wealth-creating processes of farming, fishing, mining, and manufacturing, or compared to the more direct wealth-acquiring processes of plunder and theft. And lest we—you and I, dear reader—exempt ourselves *entirely* from this atavism: is it not sometimes true that, having found what we want in a marketplace, we feel we would have found it anyway, without help, perhaps down the street or online, cheaper, and certainly without the trouble and expense that the merchant claims he went to in getting it? Does the seller's profit margin now not dangle before our eyes as something unwarranted? And why should we share the burden of his carrying costs for all the goods he carries and we do *not* want? Surely that's *his* problem.

All of these arguments, as childish as they are, as repressed as they are, eat away at the legitimacy of the merchant re-seller. As a result, and because technology now permits it, shopping by catalog and on the Internet becomes the logical outcome, with shopping at gigantic warehouse discounters like Sam's Price Club, Costco, or Wal-Mart as an intermediate step. The big idea, everyone is agreed, is to reduce transaction and search costs (K_b) to an absolute minimum, to cut out every possible middleman, and, for the sellers anyway, to lower the size of inventories or the cost of holding them. From their perch above the fray, economists generally applaud the efficiency of it all. Middlemen are market makers who operate in everyone's interests to reduce search and transaction costs. This is their *raison d'étre.* But if eliminating middlemen *lowers* overall search or transaction costs further, then eliminated they must be.

For their part, ordinary people, attracted by the obvious (if small) savings of time or money, are learning to shop online and at discount warehouses for more and more of the goods they want. But everyone knows this: that the invisible "price" being paid is the richness of market experience itself. Twenty years from now, by which time even the sharpest shopping malls might have gone to seed, this impoverishment might something we regret. Tired of pushing wire carts through halide-lit hangars of crates and steel shelves, bored with clicking on bitmapped images on a computer screen and waiting a week for delivery...more and more people might turn to becoming tourists in some "backward" country where real marketplaces still operate—in vaulted halls or along narrow streets of shops, in squares next to churches, under awnings, the region's daily cornucopia displayed in patterns of sun and shadow—in order to experience the give and take, touch and smell, sight and sound, of the true marketplace. Or perhaps we will start making these places for ourselves all over again, and build them the better for having missed them and studied them. (Pike Place Market in Seattle comes to mind.) Who knows? The future is in our hands. Likely we will have *all* types of marketplaces to choose from. This is, after all, America.[10]

There is one more reason for unease about the merchant re-seller, and it is not so easy to erase: he stands in an odd and liminal relation to the goods he purveys. The producer has reason for pride in her work. Her labor went into the good; she knows more about it than anyone else; if she is anything higher than an assembly line worker, she probably cares what becomes of it. The consumer-buyer stands in a similarly straightforward relation to the good. He evaluates its worth to himself against his income and needs, and he reviews his satisfaction with the product afterward.[11] *But the one who buys the good only in order to re-sell it need not value the good for the needs it satisfies in him at all.* He need only think of how the next buyer might value the good, or, if the next buyer is a re-seller too, of how *he* might value it on behalf of the buyer *he* will sell to, and so on. Although the merchant may express personal affection for his stock in order to enhance its value, he is very likely as alienated from the goods he buys and sells as factory wage-workers are alienated from the goods they produce or as mercenary soldiers are from the causes for which they fight. And this alienation engenders in us, as observing producers or consumers, a strange emotion, one that vacillates between gratefulness and resentment, trust and distrust, like and dislike. Not for nothing are most successful merchants "people people," skilled as much in the production and exchange of tokens in the token economy as they are in the buying and selling of goods in the material economy.

The value of hybrid goods

We have been entertaining the idea of arraying all goods on a spectrum of their resellability. Between the extreme of company shares at one end of the spectrum and street food at the other, lay a variety of goods that have *some* resale value and *some* use value—goods like houses, land, works of art, automobiles, fine wines, and jewelry, all of which gain or retain some of their market resale value with the passage of time. We also put capital goods into this category—i.e. goods that help produce marketable consumer goods as well as other capital goods.

An owner-occupied house is a good example of a hybrid good. Its value has two distinct components: one that is the happiness (shelter, security, status...) provided by owning the structure, and another that is the happiness provided by the money realizable from re-selling it as real estate.[12]

The first component is further decomposable into two: the psychological value of legal *ownership* per se, which has to do with satisfying the need for legitimacy and security, and then the pleasures of living there, which have to do with day-to-day enjoyment of the house's features, style, views, neighborhood amenities, and so forth.

The second, financial component of the value is decomposable on parallel lines. From legal ownership comes consideration of how the house's monetary real estate value is increasing (or decreasing) with the supply and demand for houses in the area, mortgage interest rates, demographic shifts, property taxes, and so on. From the pleasures of inhabitation (as well as market conditions) comes consideration of how much money-income could be earned if one rented it out.

Now the effects of all this fine structure on our valuation of a house are interesting, as anyone who has bought a house knows. How much weight should one put on one's anticipated happiness at simply *owning* and *living* in this place, and how much weight should be placed on its resellability/rentability, i.e. on the *next* buyer's probable tastes and assessment of resellability/rentability? To judge by people's behavior in the housing market, the financial component of valuation dominates, if only because it dominates the thinking of the bankers providing the mortgage financing. Indeed, it is often pointed out that the market demand for housing may have less to do with the general desire to be well-housed than the widespread and largely self-fulfilling prophecy that money can be made in reselling a house after a certain time—at a low risk and while beating inflation, the deal sweetened (in the U.S.) by the tax-deductibility of mortgage interest. For this reason, the market demand curve for housing can sometimes slope upward (the higher the price the greater the quantity demanded) not because housing is a superior good—i.e., not because home-owning provides greater happiness to the rich than to the poor—but because upward-spiralling prices, prices that soon only the richer of us can afford, produce absolutely greater resale profits and commissions.[13]

Because of this, more than half the value of most houses comes to obey the logic of a tradable asset. The home-buyer becomes like the merchant who need not value what he buys and sells at all, but thinks only of how little he can pay for it versus how much his future customers might pay for it. This is how and why millions of American families, middle-class and up, find themselves in vast suburbs, owning and living in places so generic, so offensively inoffensive, so cheaply built and yet dotted with features that *others* might want but they do not (features that have "currency"), that they feel little personal attachment to their houses as *homes*, and no love of them as places that fulfill the needs that being home uniquely fulfill. Low maintenance becomes a "plus," as does rental potential, even though both serve to alienate the dweller further from where he or she dwells. Perpetually "house poor" and aiming to trade up, home-buyers never feel that they *are* where they want to be or that they *are* where they belong. Their present circumstance is but a way-station, a means to an end. There is little motivation to pay taxes for long-term public goods like parks, schools, and sidewalks. They'll soon be out-a-there. Or relocated.

Of course, not only realtors and bankers but developers and builders are more than happy to go along with this *modus operandi*, producing generic, perfectly tradable, highly financed, commodity-like "homes," at different "price points," stretching as far as the eye can see—while inside them, on coffee tables and in bathrooms, glossy shelter magazines and lifestyle books lie open that advise endlessly on how to compensate for the loss of a sense of place, purpose, neighborhood, and home caused, precisely, by the economic system by which they came into being.

Americans value freedom. The frequency with which they change jobs, cities, spouses and living arrangements is legendary. Americans value freedom even when the rest of their needs require a large monetary investment, as in the case of owning a house. The "solution" has been to borrow the money and tie it up as lightly possible in a hybrid good that is as tradable as possible and whose generally rising prices will cover the costs of borrowing. The result, culturally, is an environment valued primarily as real estate rather than as a place to enjoy being in. The result, economically, is everyone a capitalist.

Obviously, I am disappointed at the kind of physical environment the free market seems to want to produce. I am an architect. But the same pressures are brought to bear on all hybrid goods, from land to automobiles, from works of art to university degrees. *The more that future resale is taken into account, the less does it matter how much pleasure the good provides any holder or user of it in the meantime.*[14] As has often been remarked, money is the only good that everyone wants simply because, once you have it, everyone wants it *from* you. Money must keep moving to stay alive. It's as though hybrid goods longed to be money too.

We turn now to asking: by what social process and by what social values does the resale motive insinuate itself into areas of life far from securities trading? Why does it spread when it does? When is it life-enhancing, and when is it not? And by what accounting? After all, swift exchangeability based on clear and enforceable property rights is essential to the workings of our capitalist system. Without it everything would stop. If houses were simply *not resellable*, either by law or because of confusions as to who actually owned them or what was to be valued about them, they could not function (as they do for millions of people) as reliable repositories of family wealth and as the foundations of credit-worthiness—both of which are perfectly good goods. Nonetheless, the question remains: if our acquiescence to the monetization of value is a manifestation of our passion for freedom, can we have too *much* freedom by this route, too *easy* an acceptance of money as its vehicle?

We have in partial answer already moved beyond invoking the simple Marxist opposition "use-value vs. exchange-value," that atavistically praises the former and damns the latter.[15] But it would be wrong not to acknowledge that we are crossing through territory familiar to those who criticize the workings of free-market capitalism from an essentially left-of-center, socialist perspective. What we will try to do, by contrast, is to root our critique and admiration of free-market capitalism in our complexity theory of value. We began to do this in Chapter Eight. Now we press forward. Helpful to our progress will be an understanding of an economic principle known as *Gresham's Law* and that law's basis in *the logic of efficacy*.[16] Over cycles of (re)production, goods themselves evolve and de-evolve constrained by them.

II. Gresham's Law

Sir Thomas Gresham was a talented businessman who became financial advisor to Queen Elizabeth I in the mid-16th century. He also served as England's ambassador to the Netherlands, and was, for a while, its "Royall Exchanger." Although Gresham's Law was discovered earlier and was stated more clearly later, the language by which we know the "law" today was Gresham's—namely, *bad money drives out good money.*[17]

Now, what "bad money drives out good money" means is this: when "coins containing metal of different value have equal legal-tender power [i.e. equal face value], ...the 'cheapest' ones will be used for payment, [and] the better ones will tend to disappear from circulation."[18] They disappear from circulation for one of two reasons: either because people hoard them as a form of investment, or because the state—by recalling them, melting them down, and re-minting them with a higher alloy content or in a different metal entirely—can effectively convert the good coins into larger quantities of cheaper coins with the same face value. Some of the difference in total value is awarded to the one who brings in his good coins, and some the state keeps to itself as extra revenue...which is the whole point of the exercise.

Now Gresham's Law is avowedly about *money.* It presumes the prior existence of money as a universal exchange medium produced and warranted by the state and functioning as a unit of account and "store" of value, all as described by economics textbooks. Specifically, Gresham's Law is about the difference in market value between coins considered as so and so many ounces of some valuable *metal* (such as gold, silver, or bronze) and those same coins' nominal, accepted "face" values in the act of exchange for goods and services, and about the fact that, given the opportunity, people will trade so as to maximize the latter.

Occasionally, though, Gresham's Law is extended. These extensions take the form of large and usually vague claims that "bad *x* drives out good *x*," where *x* is anything the proclaimer holds in high regard and believes is disappearing or being debased, from kosher hot-dogs to math education, from honesty-in-politics to quality-built homes. Such extensions are rarely argued with any precision or pursued very far; and this makes it easy for economists to dismiss them all as trivial. Indeed, most modern economists think of Gresham's Law as itself somewhat trivial, an historical curiosity narrowly applicable to periods of currency bimetallism (for example, in the mid 1800s in the U.S. when silver dollars eventually displaced gold ones) or to the massive currency debasements that were carried out with regularity in England, France, Spain, and Italy in the 14th through 17th centuries in order to create revenues for their royalty (who, of course, owned the mints). At any rate, say most economists, Gresham's Law applies to times past when "money in circulation" and "coinage in circulation" meant the same thing, which they certainly do not today.[19]

I shall be less dismissive of the extenders of Gresham's Law—since I am about to become one of them—but I shall also be more focussed. I want to argue that *Gresham's Law largely accounts for "money" itself* and not the other way around. Gresham's Law is no mere curiosity applying to coinage. Like the principle of arbitrage, Gresham's Law names a process inscribed into the very texture of commerce, lodged deep within the very nature of economic exchange.[20]

So let us go back to Gresham's Law in its classic form.

If A is a coin containing 50% silver and B is a coin containing 10% silver, and both have the same face value, it will profit the owners of A-coinage to turn it into B-coinage. Historically, as I have indicated, this "turning into" meant taking bags of A-coinage to the official government mint where, for a fee, A-coins were taken in and more, new, "debased" B-coins of the same face value were given back in return. In this way, with thousands of people taking advantage of the process, the "good" money rapidly disappeared from the marketplace and the "bad" money became the one that circulated, eventually "driving out" the good. Over the long term, repeated debasements had the effect of making the buying power of coinage depend less and less on its metallic content and more and more on the state's warrant that the coinage *was* money of the worth stamped on its face.[21] Soon, though, going to a government mint was not necessary to carry out the conversion. The warrant of a state-authorized bank was sufficient, and by the 18th century private banks in Europe and the U.S. could and did issue unique currencies of their own, usually paper notes of redemption—"bank notes"—backed by gold and precious-metal holdings.[22]

A moment's consideration will reveal that the exchangeability of one form of currency for another at the mint, or at some barter market for their base materials, is not a necessary condition for Gresham's Law to operate. It suffices (1) that the cost of production and use of one currency be lower than the other, (2) that people be indifferent as to which is tendered in payment for goods, and (3) that the issuing authority be indifferent as to which is tendered in repayment of debts and in the payment of taxes.[23] Barter market or no, re-minting or no, finally only the cheapest-to-produce and cheapest-to-use money circulates—that is, only "bad" money is widely used, until yet "worse" money drives it out. For over a hundred years, tobacco by the pound was the dominant currency in Virginia, Maryland, and the Carolinas. Needless to say, the quality of the tobacco used for this purpose quickly descended to crushed bits of stalk, chaff, rotted leaves, and so forth—bad-smelling and quite dreadful to smoke. Similarly, regular non-commodity currencies such as metal coinage were displaced by paper bank-notes, which had less material or embodied-labor value, in turn to be displaced by magnetic patterns on computer hard drives, which have even less.

As one might imagine, the smoothness of this succession depends on a number of factors, among them these two important ones: first, that the state's authority to control the total supply of money and to declare and warrant its face value remain intact,[24] and second, that sellers in the marketplace do not post two prices for the same good—i.e., one price for payments made in good money, and another for payments made in bad money.[25] If there is no control over the total amount of money in circulation, of course, then any increase that exceeded the real need for new money-tokens to mediate new and different occasions of exchange would lead to economy-wide wage, price, and interest-rate inflation. And indeed, floods of newly minted or imported currencies (e.g. gold and silver) had exactly this effect time and time again through history until governments took control of mints and created central banking systems that could regulate the total supply of money more or less at will.[26]

Left to itself, Gresham's Law would have all money vanish as a material manifestation to become merely an abstract unit of accounting—an item in and for trade only, with zero manufacturing, transaction, and storage costs.[27] This is money's *telos*, what it "wants to be." This is its natural state. But there are several practical reasons why the circulation of a variety of physical coins and paper notes persists nevertheless. They have to do with convenience, with tradition, and with lowering transaction costs overall. One would not pay for a house with dimes, nor for a bar of chocolate with a money order. Shoe-shiners will not accept credit cards, and most restaurants will not accept personal checks. At any given point-of-sale, the method of payment follows custom-, convenience-, and trust-based patterns. These in turn are supported by the law, which in most countries makes it difficult, if not illegal, for a vendor to refuse payment from anyone who offers to pay the price asked in "legal tender." But the drive to dematerialize money is a powerful and continuing one. Indeed, as payment becomes solely a matter of adjusting "balances" in (at least) two guarded computer memories, so the dream of a totally cashless society is steadily becoming a reality. Online commerce is already carried out with digital money. Banks are moving to online operation, too. Good-bye bank tellers, marble bank lobbies, cash registers, jingling pockets, rat-eared checkbooks, even automatic teller machines....[28]

For better or worse, behind Gresham's Law runs a certain, inexorable, efficiency-related logic that affects far more than the nature of money. Indeed, it is a logic that in a certain way explains what money *is*. We have to take one more step deeper into the phenomenon before we can return with any treasurable insights.

The logic of efficacy

Take any physical object: a chair, a shoe, a tree… As a simple consequence of its physical existence it has a huge number of qualities or properties. For example, it has a temperature, a color, a form, a rigidity, a texture, a chemical composition. Indeed, it has all of these properties spatially distributed at many scales and in immensely complex patterns, micro to macro, fleeting to permanent. If the object is (or was) a natural one, then it also has (or had) a growing life with life's full complement of biological complexity-and-organization. If it is an artifact, then it also has a history of design, manufacture, use, and ownership. The object's ancillary effects on its surroundings are apt to be many and varied, too—from adding load to the ground or floor it sits upon, to deflecting wind, blocking views, emitting odors—effects not all of which are intended. It may be host to a billion micro-organisms, food to a dozen animals, decoration to certain human tribes, and so on and on. My point is this: to know or describe any ordinary physical object *completely* would be a lifetime's work, if not actually impossible. In our dealings with things, therefore, we perforce pay attention to only a small fraction of the enormous set of their qualities or properties—of the information *in* them.

Now, for a given good, let us identify the largest subset of distinct characteristics we *could* pay attention to if we had the education, motivation, sensitivity, time, and opportunity to do so, and label that set J = {j}. Each member of J, $j \in J$, is an "element of description," an elementary *fact* about the good, thought of not as the description itself but, in realist fashion, as a distinct feature of the good that j describes. Let the total *number* of characteristics in this set be denoted N_J. We can call N_J the "size of J".[29]

Now, the size and actual composition of J is changeable, to be sure, depending on the complexity of the good and on the sensitivity of the observer. But J is always larger than the set K = {k}, which is *the subset of all attributes we commonly value it for*. That is, $K \subset J$. It follows that $N_J \geq N_K$. The set difference between J and K, J – K, is $(N_J - N_K)$ in size. $(N_J - N_K)$

represents the number of all the good's attributes that are considered extraneous, superfluous, or irrelevant, that serve merely as a vehicle or filler, that are hidden or not appreciable...and thus, we think, not responsible for its value. We don't care how good looking our accountant is, so long as he saves us money on our taxes.

Figure 9.3 The set of a good's characteristics, J, and the subset of those characteristics, K, that are valued.

Example. Let J represents a fresh, whole orange. Let K represent the juice of that orange. J – K is the peel, pulp, and seeds. Why pay for J when all you want is K?

Example. You are very thirsty. I offer you a glass of cold water. You drink it. Whether the glass is a crystal goblet or plastic cup is irrelevant; whether it sparkles in the sun and will be carefully washed or is dull and thin and will be tossed under the sink is irrelevant. The set of all qualities that separate glass from plastic, J – K, is superfluous. You're just thirsty!

You offer me a coin in payment for the water, say a quarter. The metallic content of the coin is irrelevant; its size, age, heft, beauty, temperature, electrical conductance—all irrelevant. All that matters is that someone else, later on, will also accept it as a 25-cent payment from me. This efficacy is constituted by the K characteristics of the coin, not its J characteristics.

In general: say I am in the business of producing and selling a certain good. Within a given technological regime, because it is what it *is*, physically, the unit cost of producing the good is proportional to N_J.[30] One day, I learn from market research that my customers are buying my product for reasons that derive from K, which is a subset of J. This is fine if it costs me nothing to provide J – K. But if I find that I am spending time, money, or effort *producing* (or transporting or storing) the N_J - N_K characteristics of the good that my actual or potential customers do not appreciate, what should I do? Two alternative strategies face me:

Strategy 1: I can educate customers and potential buyers to appreciate these "extraneous" characteristics so that they come to value them and thus see them as not extraneous at all, or

Strategy 2: I can change the materials, design, or production techniques of the good so that all non-valued features are as far as possible *eliminated*, that is, so that $\mathrm{J} - \mathrm{K} \to \varnothing$ and, concomitantly, $N_\mathrm{J} - N_\mathrm{K} \to 0$.

Figure 9.4 contrasts the two strategies.

With Strategy 1, I can probably raise my selling prices and thus my profit margin. With Strategy 2, I can hold or lower my selling prices and still be profitable, this while holding on to or even gaining market share.

Both strategies are in principle workable. But are they equivalent in risk or result? No. For the first is something of an uphill battle. Educating, advertising, poeticizing, pointing-out, sensitizing, persuading...(i.e. increasing N_K) all are efforts at changing minds and opening eyes that are labor-intensive, expensive in themselves, and prone to failure. Besides, to the extent that such efforts succeed, the strategy as a whole may yet fail if a greater number of (or even just as many) potential buyers are *en*couraged by the new level of connoisseurship being asked for as are discouraged by it. The money the producer saves in *not* having to redesign and retool in order to "rationalize" the product (Strategy 2), he must spend in marketing it (Strategy 1).

<u>Figure 9.4 Two strategies for decreasing the difference between a product's valued (K) and non-valued (J – K) characteristics.</u>

Often, the easier course for the producer-seller to follow is Strategy 2, namely, to let price "do the talking," to let price channel potential buyers towards certain goods—*his* goods—through minimizing the expenditure required of them to obtain "the same thing" even though, in fact, it is *not* the same thing. This strategy is also likely to increase the effective demand for the product, and hence the potential revenue from its sale, because it aims at the larger number of buyers whose incomes, as a rule, are lower.[31]

And so, in general, under downward price pressure, the superfluous qualities of a given sort of product are stripped away until only those that are "selling points" remain. Strategy 2 dominates. Like coinage under Gresham's Law, products tend to become (1) no more than what descriptions of them can legitimately say they are and have people agree, (2) no more than what can be immediately appreciated about them at the point of sale, and/or (3) no better than they must be to deliver the desired "utility" for whatever period is conventionally acceptable. Form follows function until it fits like a rubber glove.[32]

I will return to discussing these two strategies later in this chapter. For now, let us look at some of the unhappier results of adopting Strategy 2.

• Let J_1 represent the training required and the level of neural activity involved in doing arithmetic in one's head; let J_3 represent the training required and the level of neural activity involved in doing arithmetic with a calculator. If all that matters, in class or at work, is the production of quick and correct answers to arithmetic problems, then J_3 will predominate and the capacity for doing mental arithmetic will atrophy. The use of calculators will drive out a skill that might well have benefits in other areas of cognition; it might also make a goodly part of elementary math education unnecessary. Equation-solving software may soon do the same for college-level math education.

• Let J_1 be a tailored suit, with all its parts and refinements. Let J_3 be a T-shirt and jeans. If in the name of individual freedom and egalitarianism both become equally acceptable to wear at the symphony, the opera, a fine restaurant, then—more or less slowly, more or less surely—T-shirt-'n-jeans at concerts and fine restaurants and other venues once regarded as formal will become universal.

• If people with deep psychological problems can be made to feel better by taking pills rather than by engaging in the expensive and (let it be admitted) not always successful process of psychotherapy, then clinical psychologists and psychiatrists will no longer try to help people understand themselves in any new way through extended, caring dialogue. Nor, informed by a knowledge of history, philosophy, religion, or literature, will they help people examine their relationship to the world and to the human condition. Instead, clinicians and psychiatrists will become valued—and paid—increasingly only as keepers of the gates of the pharmacological Zion, while their educations in anything but chemistry and neuroscience will atrophy for being "pointless."

• If religion A has a larger number of rituals, prescriptions, and proscriptions than religion B, then everyone persuaded that religion B offers the same inspiration, comfort, and access to

God as religion A will become adherents of religion B. Indeed, in general, simplicity-valorizing doctrines of life's meaning will drive out complexity-valorizing ones. (Lessons for the present work are well taken.)

• If, in their hiring practices, and for any number of reasons (including fear of transgressing anti-discrimination laws), employers do not distinguish between academically high- and low-achieving high school graduates, then the academic performance of non-college-bound young people at high schools (and elementary schools) will decline. Or rather, they will have one more reason to decline.[33] Later, of course, if a smaller set of skills will produce the same product as a larger set of skills, then employers will neither train workers to have any more skills than absolutely necessary nor pay more to anyone who is "over-qualified" for the job.[34]

• Visit a television sound-stage or production facility and you will be appalled at the tackiness, grime, and disrepair of the set. How is this acceptable? Because with the poor resolution of American broadcast television, viewers cannot tell the difference. With the adoption of high-definition television (HDTV), most of television's sets will be rebuilt to movie-standard quality. But, of course, no better.[35] Similarly, if all that can be seen from the road by the majority of national park visitors is a few hundred yards of forest depth, then loggers will find ways to clear-cut the hinterland as close as possible to this limit. This logic goes further—into "real" places like downtowns, and not just places of entertainment like Disneyland or Las Vegas. Indeed, *wherever the viewers' visual and tactile access to the world can be controlled, no more than surfaces will be provided.*

• If J_1 is the set of all things a lecture room or a campus is, and K_1 is the set of all things that are *clearly* done there—listen to a teacher, go from class to class—then "virtual universities" with TV and online classes, both of which ostensibly perform the same functions as are outlined in their respective K-sets, will replace the concrete and stone banks, the musty lecture rooms, eye-contact with teachers, and the treed campus avenues with all their irrelevant-to-K affordances.[36] (This has already happened to banks and bank buildings with human tellers, etc.) To be sure, many grand old buildings are saved by preservationists, even restored, and are shepherded safely away from the marketplace. This is Gresham's hoarding of the gold coin and putting the cheaper coin—the paper-thin buildings we live in for a while and then trade as "real estate"—into circulation. More strongly does this become the trend as human attention is further diverted from real people, real places, and real things to whatever-appears-on-computer-screens, and, concomitantly, as finite "resources" (i.e. time and money and know-how) are diverted from servicing buildings, their grounds, and libraries, to servicing computers, their networks, and digital contents. (More about all this in the Coda.)

• Let J_1 be well researched, well written, and carefully edited journalism; let J_2 or J_3 be poorly researched, barely-edited journalism that effectively reports the same news, K_1. If all that matters to readers is that *the news* be reported as soon as possible, then bad journalism will drive out good, and short pieces drive out long ones. When local TV stations determine that disaster, crime, and "human interest" stories are cheaper to produce and more watched than news of political, cultural, or scientific events, then news programs that once—on principle—gave broad and balanced coverage to all the news will come to concentrate only on the sensational. For their part, *Time*, *Newsweek*, and *Scientific American*, once serious reading, have devolved into slimmer, more commercial enterprises—shorter pieces, easier to read, with pictures, headlines, personality news, and bulleted lists. It's called dumbing down for market share.

• Ditto with the printed word and the online word. Newspapers and libraries rush to go online only to find themselves severely challenged by the rumor mills of newsgroups and chat-rooms and by reams of undigested data made available for free without the benefit of editor or librarian. College and high school student papers are filled with erroneous and unsubstantiated facts gathered from online searches that turn up mostly commercial, enthusiast-group, or personally "published" data and opinions. With powerful online search engines, this free material is easier to come by than material found after physical (or even electronic) search for the authoritative, fact-checked, cross-correlated, and edited information that for centuries has formed the backbone of newspaper, journal, and book publishing (at least in its nonfiction form), and all of which has to be paid for.

• In a digital world, letter-writing all but disappears and becomes exotic, sentimental, like the fountain pen (which itself replaced the more sensitive and artful quill pen, and was replaced in turn by the stalwart and cheaper ball-point pen, the felt tip, the rolling ball...). By whatever writing instrument they are created, however, hand-written letters on nice paper—physical, odiferous, palimpsestic, and personal—become more highly valued precisely as email is taken to be "the same thing, but faster": the cheaper coin.

• Similarly, multimedia CDROMs are easier to read—or should I say "interact with"?—than books, and claim to convey the same information, which they actually do not, falling well short of the comparable book's comprehensiveness, ease of use, pictorial resolution, and ability to map the times and places related in the subject matter to the sense of time and place established by a book's physical design.[37] Such is the hold of computerization on the mind of school reformers, that our children will soon spend the better part of their school days clicking their way through screenfulls of impoverished images and reduced paragraphs—mere captions—constructing in their minds a very loose picture of the subject matter, a picture pieced together, if it is at all, from the collage of "hyperlinked" data which they experience in an arbitrary order of scrollings and snatches. So immediately rewarding, too, is the process of *clicking* to get a whole new screen, or to get something to *happen*, that we can expect multiple-choice exams—already a degradation of active, problem-solving written exams—to disappear, to be replaced with some sort of procedural tracking of mouse-clicks through a database, judged "intelligent" or not in a statistical way. And probably by a computer.

One might have no objection, in these last three examples, to the whirr of a hard drive replacing the sound of paper, or to the glow of a phosphor or LCD screen replacing the sheen and feel of a paper page. Both media—computers and books—have their charms. Lugging heavy book satchels between classes is surely not a necessary part of being a student, and if electronic books can convey the *same* information (or more) without the weight—if they can provide the same intellectual discipline and fineness of display (or better) without the weight—let us have them! This is not the point. *The point is that the elimination of difficulty (in reading, calculating, understanding, building, dressing, speaking, doing, etc.) frequently betokens the elimination of a* beneficial *complexity, of* real *content and nuance, of* longer-term *usefulness, of* higher quality *experience.* It often involves the elimination, in other words, of the qualities in the set (J – K) that run up production and learning costs to be sure, but which, unwittingly perhaps, we count(ed) upon as constituting the fullness of the thing itself and that provide(d) the source of our pleasure in mastery and connoisseurship.[38]

Most of us are dispositionally set to wishing that more could be had for less: more fun with less effort, greater value for less money, more accomplishment in less time. Who can blame us? Life is short. But in our impatience to pull off this trick we are prone to ignore the trade-offs. We turn a blind eye to the cheapening we have accepted, or else we argue, when it is pointed out, that we have traded difficulties that are not worthwhile for "opportunities" that are, or that something useless has been jettisoned. As a culture, collectively, the result is this: that *any impoverishment of the set of attributes, qualities, and characteristics widely understood to be of value in any good, sooner or later leads to a corresponding impoverishment of what is produced in the name of that good,* as *that good.* This is Gresham's Law at its most universal.

Contrast this with the ways of nature.

As we saw in Chapters One through Three, and as we know as a matter of general knowledge, biological and cultural evolution differ in several ways. In biological evolution, information is transmitted from generation to generation by genes; in cultural evolution it is transmitted by ideas and practices, or "memes." In biological evolution, change usually takes place over thousands and millions of years. In cultural evolution, change can take place over as little as ten to a few hundred years. And so forth.

However, few of us remember that whereas in biological evolution harmless-and-useless genotypic traits are as happily passed along as positively useful ones, in cultural evolution under a strict economic and technological regime, all "species" of goods are reduced to their least physical, least difficult-to-produce configuration. Those traits and qualities of a good which are not sufficiently valued are as mercilessly removed as harmful ones; that they cost time or money to produce is "harm" enough. Waste is not tolerated; performance is all. Indeed, where nature *qua* nature is profligate in generating variations, extravagant in expending energy, and fairly bursts with accidental and unnecessary finery, the fruits of modern market economies and mass culture are, by comparison and with few exceptions, unripe and miserly. Under intense downward price pressure from consumers, and in the absence of rapid technological progress in the means of production, what I have called Strategy 2 dominates: all non-obvious, hard-to-describe qualities of a given category of goods (and the time spent producing them) are stripped away until only those that are clearly "selling points" remain.

For better or worse, nature knows nothing of Gresham's Law.[39]

If reducing the number of attributes understood to be of value in a good leads to a corresponding reduction of what is produced *as* that good, then what, in our economic system, encourages this reduction to take hold in the first place? And why does it *not* take hold for the many goods that have, on the contrary, grown in marvelousness and complexity over time (and that indeed, might not have existed not so long ago), for example: cars, computers, cameras, drugs, and movies. Does Gresham's Law strike only the already-weak, like a disease? Is it an agent of natural selection?

One answer is obvious: Gresham's Law is fueled by the normal—indeed laudable—desire of producers, sellers, and resellers to cut production or acquisition costs relative to fetchable prices, so as to open up the gap that is the *profit* they deserve for their work, their ingenuity, their risk-taking.

Fair enough—but not far enough. Where does this impulse to cut costs and lower prices rather than *raise* quality and *raise* prices come from? After all, profit is a difference between two numbers, not an absolute number. Cannot handsome profits be made from producing high quality, high cost items? The demand, certainly, is there: everyone *wants* more sophisticated goods and tools, more beautiful environments, better educations, richer life experiences, etc., as Tibor Scitovsky points out in *The Joyless Economy*. Moreover, almost everyone would *like* to be involved in making or purveying qualitatively superior goods in smaller numbers rather than qualitatively inferior goods in larger numbers. Why, then, does this higher-quality world not evolve more quickly and evenly?

Reasons are many, but I suggest that one of the reasons is the overriding, universal, drive to "save money." This drive, felt by both producers and consumers, issues primarily from two sources:

First, from the fact of unequal income distribution among consumers. This causes the size of the market for a given good to become larger as its price falls—as more people can afford it. Without monopolistic market power, it is in the interest of every producer-seller to push his prices down just enough to undercut his competitors, hoping to gain sufficient market *share* thereby to offset, in total profit, what might be sacrificed in average, per-unit profit.[40] And if, through the adoption of new production or distribution technologies, a firm's costs can be made to fall *faster* than its asking prices need to fall in order to maintain or increase market share, then that firm's total profits are doubly assured. What does the firm do with its higher profits? It can pay higher dividends to shareholders, it can pay more to its employees and officers, it can pay down debt, it can invest in expansion, or marketing, or more efficient production technologies. It can support charities, make political contributions, buy other companies, and so on. Because they are in form of cash from sales, such profits allow management to *choose* which of these things to do. With the buying power of cash, that is, the firm is *free* to do anything that won't increase the price of the good.[41]

The consumer want to "save money" too, of course. Most people, rich and poor, would rather spend less time and money for K—the good's valued characteristics—than more, and will thus give their business to the seller who provides K at the lowest price and/or with the least fuss.

Common sense, no?

But let us press harder on this piece of common sense. *Why* would we rather spend less time and money to obtain K than more? This is not at all a trivial question. Given fixed resources and income, is it so that we can have more time or more money left over to spend on other things, or on greater quantities of the same thing—so as to have, in total, more "stuff"? To be sure, this is one factor, especially for low-income families. But what else do we get when we "buy cheap"? This: in expending the least amount of time and money on K, we can retain—indeed maximize—the *freedom* we have to *choose* how to spend the savings we have "earned." This is what I meant earlier when I spoke of trading goods that require commitment for the good that is opportunity. After all, to *buy* something is to *commit* to the thing bought. It means to lose the option of spending that money in any one of a hundred other ways. Similarly, to actually *do* something is to commit a certain amount of one's finite lifespan to doing it, and to have lost the option of doing something else with the same allotment of time. Both are reductions of the freedom that still-having-money (and still-having-time) bestow.[42] They represent what economists call "opportunity costs." What is *work* but the giving up of one's freedom to do anything one wants in return for compensating salary or *wage*, one's freedom come back as money?[43] Similarly, what is *interest* but the money-reward for *investment*, which is the commitment of one's money to focussed, value-productive activities rather than to choiceful spending—freedom lost now to come back as more freedom later, bread upon the water?

Moreover, when we adopt the rule "buy the lowest price X" and X is also generically specified (e.g. "an hotel room," "a pair of brown shoes," "a college degree"), our lives are also considerably *simplified.* The rule "buy the lowest price X" delivers to us an advantage beyond winding up with money to spare. Because the rule demands no reflection or exertion, it delivers to us also more freedom as *time*. Why be delayed with investigating, weighing, and wondering about the value of this thing over that thing when this very activity cuts into the pleasurable time one might spend choosing among *other* things more lightly, with less agony? More often than not, of course, the rule "buy the lowest price X" simply lets us be lazy.[44] Rather than having to discriminate between rooms, or shoes, or educations on the basis of their quality, origins, or long-term consequences—a complex pursuit with often inconclusive results—it lets us "cut to the chase." And it lets sellers cut to the chase, too, with this parallel and simplifying challenge to buyers: "How much do you want to spend?" or "What's your bottom line?" Here we see Gresham's Law applied not just to the product but to the marketing process itself.[45]

With Gresham's Law in place, along with the logic of efficacy and a society-wide fixation on maximizing freedom—and freedom *as soon as possible*, note, which is itself a freedom-seeking strategy in as much as it economizes upon time—we can begin to see why *price* and *convenience* become the dominant bases for competition among sellers in markets for goods that are far from commodities.[46] We begin to understand why we find ourselves in an economy all but dominated by "cheap" producers supplying "cheap" consumers to make a cheap world—a world, ironically, tragically, everyone wants better than and could have. Low prices and time-saving convenience are pursued at the expense of producing goods of significant quality, longevity, or difficulty in the making. Although far outnumbered, such goods *are* produced, of course, and they are often expensive. But they are gobbled up by the rich with the same heedlessness to quality as the hungry person to the finer points of nutrition. Complex goods, goods with style, goods that take time to appreciate or master...all entail the voluntary giving up some considerable amount of *choice*—of freedom—in order to make and enjoy. They are goods that entail the pursuit of more perfect satisfaction of the lower needs on the stratigraphy, one's own needs as well as others'. In short, they are goods that entail discipline, dwelling, and commitment—the very opposites, respectively, of mental, physical, and social freedom.[47]

What, then, is money?

Under the twin pressures of the logic of efficacy and our passion for freedom, all products aspire to minimal material and labor content. They are halted in this trajectory only by the necessity of having such heft and shape and chemical composition as they absolutely *must* have in order to do the job they promise. When the good-in-question is highly resellable, the reduction can go further. Money is simply the commodity that, via Gresham's Law and the logic of efficacy, has been the most thoroughly stripped of every physical attribute that does not contribute to its one and only purpose, which is to be perfectly, universally, costlessly exchangeable while remaining finite in total quantity. By the late twentieth century, technology allowed forms of money to exist that were "worse" than Gresham ever dreamed of: tiny blizzards of photons and electrons—strings of bits that could be moved anywhere with the speed of light but that could not legally be produced, *ex nihilo*, by any institution other than the state.[48]

III. On Money and its Meanings

Textbooks list four canonical functions of money. Money, they say, serves as a *medium of exchange*, as a *means of payment*, as a *store of value*, and as a standard *unit of account*. This is a useful list. It offers room for elaboration without demanding that we examine very closely the meaning of such terms as "medium" or "account," or that we ask how exactly value can be "stored," or that we wonder why money here is said to "serve" rather than "command."

But rarely do economics textbooks dwell upon what is known to be essential to money's buying power on all four points, and that is its *exchangeability*—i.e., the very universality and swiftness of its acceptance as a medium of exchange, a means of payment, a store of value, and unit of account.[49] Just as the speaker of a universal language can speak to anyone, anywhere, so the possessor of money is to be able to offer it in payment to anyone, anywhere. More than any other good, money multiplies the number of *possibilities* for trade, for economic "conversation." This is freedom, at least potentially. This, plus money's Gresham-acquired physical lightness, is what makes money the token that bestows freedom so well, and ever better as the extent of the market grows, as more of anything anyone might want can be found for sale to anyone who might want it and who has the money. This much I hope to have conveyed already. But now:

Qualms (the usual...)

If freedom is our highest need, then what, we might ask, is wrong with wanting to earn, receive, and spend large amounts of the token that conveys it so well? Several things.

For one, the freedom that *money alone* gives is often poorly founded. The receiver's lower needs may not yet have been met. Money cannot buy the blessing of a priest, rank in the army, protection from disease or eventual death, respect as an artist or scholar, good taste, useful insight, or physical fitness. Or at least, money cannot buy these things directly or reliably. To be made free chiefly through having large sums of money while *not* having substantially achieved the satisfaction of the lower-than-freedom needs by other means is not to be very free at all. Indeed, it is to feel continually like an imposter. As I observed in Chapter Four, if one's freedom is poorly-founded, one is continually vulnerable to blackmail of one sort or another. One is likely to spend most of one's time around strangers, sycophants, and "gold diggers," reminded all too often of that ironic blessing: "May you be the richest person in your family!" Not for nothing do many wealthy individuals, for reasons other than nobility, hide the fact that they are moneyed, or discount it, or remain emotionally distant from all but their equally-moneyed and closest relatives.

For another, not all money earned is money deserved. Money's very anonymity, by design, throws a veil over its origins and allows a measure of non-accountability to enter the social realm. This is why it is universally impolitic to ask prospective buyers exactly how they earned the money they now offer in payment. For should the buyer divulge such information, or be expected to, it would limit the very freedom that having the money afforded her. She would be open to moral critique, to a million considerations of her worthiness.[50]

Tied to all this is the fact that in modern society, under the extreme division of labor, the circle of people amongst whom one earns money is apt to be quite different from the circle of people to whom one is socially indebted—that is, to people from whom one wants tokens of approval and to whom one owes the same, to people one has a duty to keep secure, to people from whom one wishes to *be* set free and, in return, one wishes to set free...and so forth.[51] The sorts of *activities* in and from which one earns profits, salaries, royalties, and the like might also be quite different from the sorts of activities in which the tokens one wants and needs are being traded.

With this in mind, we might begin to suspect that, in a strange way, it is the "official" banishment of the money from the interpersonal social realm (because it is too calculating and precise), no less than the curtailment of rich interpersonal exchange from the business world, that decreases the overlap between everyone's private lives and working lives, and which, in turn, allows the earning of money to proceed by asocial and even amoral means.[52] A society in which incomes were earned in activity amongst people who thought of each other as friends, neighbors, and even family members would in many ways be more moral, and certainly more loving, than one in which people only saw each other as customers, employers, employees, suppliers, competitors, etc.—strangers, all. It might even be more prosperous. But it almost certainly *would not be more free*.[53] Certainly, burgeoning consumer choice has its downside, as Robert Reich points out in *The Future of Success*.[54] Every consumer who is free to choose from an ever wider range of goods and "deals" is also, somewhere, a producer, competing ever more strenuously with other producers to *provide* increased choice and better deals for others. This strenuousness exacts a price, from lowered job security to weakened family ties.

Although the use of money as a metric of value is often criticized, it is not the "love of money," I suggest, that is the problem here, but the pursuit and acceptance of poorly-founded freedom *as* true freedom.[55] Gresham redux. If we close our eyes to the difference, "bad" freedom drives out good freedom. The love of well-founded freedom—which is freedom that requires that social and familial dues be paid, that peace and justice prevail, that confidence be predicated on sufficient "stocks" of earned goodwill—is source of all good; and it is a highly complex-and-organized thing. In *this* context, to *this* end, as a token *among* other tokens, the institution of money is indeed instrumental to individual human welfare, and the "love" of it benign.

With our ethical bearings briefly taken, we can now return to pursuing the following question more exactingly: how does money-measured value, often to our dismay and yet "naturally," come to infiltrate and dominate so many aspects of modern life?

<u>How money becomes the dominant token.</u>

Material goods whose most valued attribute becomes perfect resellability begin to approximate the character of money, this by the same logic that causes goods that are already money—e.g. metal coinage—to evolve into purer, more efficient, more essential forms, like bank notes and computer records. Gresham's "bad money" is, in fact, *good* money. Indeed, it is the best *money* because it is *only* money.

This much I think we have ascertained.

We can arrive at the same conclusions by a different route, however. For money is also the result of Gresham's Law at work within the realm of tokens in general. After all, tokens are nothing if not exchangeable goods. They are not *perfectly* exchangeable, to be sure: unlike money, not everyone wants every kind of token all the time, and nor can most tokens be passed along untouched, untransformed, with value undiminished, as money can. But tokens are highly exchangeable nonetheless, fleet, and often physically ephemeral. Think of licences, or the papers that constitute property rights. Compared to goods like apples, buildings, and battleships, all tokens somewhat money-like and have an inherent tendency to become more so.

There is another difference and another similarity between most tokens and the specific token that is money: tokens are not centrally controlled as to the number of them that may be produced and circulated. No one controls the general "token supply" the way the Federal Reserve Bank (in the U.S.) controls the money supply.[56] Having said this, though, it is clear that social norms exert a similar, if decentralized and looser, control nevertheless. For example, it is common knowledge that too-high grades or too-ready smiles lose their value to "inflation." We know that it's wise to be selective with our promises if we want our future promises to be believed. Token production volumes are limited by good sense if not by law. As this chapter progresses, we will see how money allies itself to other token types, becoming a measure of their *size*; and we will also see how money sometimes displaces them entirely. Money has its uses and abuses. But one of its *uses* we can already see, *is to hold down token inflation.* It's easier to "print" tokens than it is to print money. What else does it mean for someone to challenge another to *put their money where their mouth is*?

The relationship between the token that is money and the rest of the tokens is more complex than this, of course, and as much in need of justification as it is of criticism. Let us proceed more carefully.

Recall that, in general, tokens lower down on the stratigraphy have greater value, greater "weight," than tokens higher up, which tend to be lighter and slighter. Tokens lower down on the stratigraphy therefore also tend to be more expensive to devise, produce, and warrant. This fact has been built into our theory of value from the beginning. And so whenever a higher-stratum token can have the same effect as a lower-stratum one—whenever it can serve as a proxy—it usually makes good economic sense to use the higher-stratum token rather than the lower one: understatement is less trouble.

Is this a cheapening of the lower stratum token? To judge by my earlier remarks about Gresham's Law and the economic logic of efficacy, it would seem that I must say Yes. But in this case the answer is no, or not necessarily. Why? Here is the quick answer: because *the reliability with which the "cheaper," higher token operates both depends upon, and facilitates by its very success, the greater complexity-and-organization of the social system.* When a vote becomes as good as a blow in battle, when a handshake becomes as good as a contract, when a nod becomes as good as an endorsement, we are accepting a token from a higher stratum of need as the functional equivalent of a token from a lower stratum of need. Built upon an edifice of trust and law, the higher token has become a proxy for the lower. In order for the higher token to indeed have the same effect as the lower but without its cost, everyone involved must have accepted, internalized, and habitualized the complex linkages of obligations and meanings that tie the higher, lighter token back into the matrix of "heavier" relationships and understandings that have already been formed. In business-speak one might say that higher tokens "leverage human capital." No information is lost here; it's just that the complexity of the object—the lighter token in this case—lies not in the token per se but in what the token *triggers* in the adequately-prepared human mind.[57]

Money and marketplaces go together, as economists point out. Both, ideally, are about expanding freedom of choice through bringing ever larger numbers of more widely-flung people into mutually beneficial, if not personally amicable, association. More precisely: markets that expand in size and membership, that grow in the number and variety of goods offered as well as in the spread of prices of qualities available for each kind of good, increase the potential complexity, C_{pot}, of the lives of people who have enough money. But, as we saw in Chapter Two, the growth of Ω depends on the increase of both C_{pot} *and* C in the proper proportion. For lives to improve, increased *organization* is required too: that is, R must roughly equal C.

If money offers freedom, and freedom is C_{pot}, the question then becomes: how does the flow of money structure itself so as to set R where Ω is maximized? Well-founded freedom, after all, is not just increased C_{pot}; it is greater Ω. Now we must look at the difference between money and *cash*.

<u>A measure of organization: money shaped, marked, and packaged</u>

Cash. Wads of it, piles of it...the rush of pure possibility it provides is so heady that cash is rarely found exposed in any significant quantity. Rather, it is tucked away in little leather pouches and in envelopes and drawers, brought out with discretion—almost shame—and tucked away again just as soon as possible, as though contact with the air would spoil it, or as though invisible hands might snatch it away.

A man in a dark suit carries a briefcase attached to his wrist. High in an office building he opens it on a walnut desk to reveal a million dollars in hundred-dollar bills.

Men bending over safes trying combinations; men tunneling into vaults; cars careening away from banks, doors flapping; men on horseback galloping away from trains holding canvas bags aloft, whooping...cultural icons of money's concentrated and dangerous volatility are not hard to find. It is as though money, bound in chains of ownership and assignment, longs to be free, to burn, to be rescued and be *spent.*

In fact, it is our own freedom, unleashed from social bonds, that these images represent.

The hold that these images have on the popular imagination seems to indicate that at least some of our everyday, moral apprehension about the power of money comes from what Erich Fromm famously called "the fear of freedom"—the generalized fear, that is, of facing new possibilities on the one hand, and of having them snatched away from us on the other. Certainly, on the moral front, we fear that if all human transactions were to be cash-only deals, with everyone's money as good as anyone else's, society might well decompose into a hundred million free-floating, opportunistic particles—ourselves among them. While the existentialist hero might welcome a cash-for-everything world with its infinite possibilities for anonymous exchange, most people would find such a world disorienting and loveless. To them it would not feel like real freedom, like freedom experienced in community. It would feel, rather, like chaos experienced alone.[58]

Whether or not this is the reason American society stops short of being an all-cash one, it remains true that money is rarely found in a state of nature, as it were—unallocated, unbound, unobligated, or unaccounted for. Contrary to naive theory, in practice we find that anyone's money is *not* as good as anyone else's. Nor are all possible uses of money free for the adoption. In real life, money comes with "strings." More often than not, money is saddled and harnessed with conditions and obligations, even when it *looks* like cash that could be spent by anyone on anything at any time.

Moreover, unlike water, money moves in bumps and lumps rather than in a continuous flow of its lowest-denomination "atom": hence a salary *check* for $3024.98 once a month, a tax *payment* of $65.21 quarterly, a property *price* of $232,000 due by November 9, and so on. Money is forever divided and budgeted, owned and destined, in specific amounts. (The word "budget" derives from the Latin *bulga* meaning "bag," via the medieval French diminutive for *bouge*, a leather bag, to *bougette*, "little bag." In 15th Century Florence, little bags of gold florins, royally sealed, were a common unit of currency. One was not supposed to *open* these bags.)

Moreover, *wages* are distinct from *tips*; and *interest* is distinguished from *profit*. *Public monies*, raised by taxes, are different from *private monies*, earned by investment, sales, or inheritance, and generally they are put to different uses. *Down-payments* are different from *repayments.* Money-from-*mom* is not the same as money-from-*dad*.

Similarly, payments for goods, savings, commissions, royalties, kickbacks, bets, bribes, gifts, pledges, and charitable donations are distinguished from each other in intended use, in how we think of them, and in how they are treated by law, although all of them are unmistakably and correctly identified as sums of money. Within households too, family income is often divided, shaped, and colored: so-and-so-much for mortgage-payment or rent, so-and-so-much for lunches, for clothes, school, vacation, car payments, insurance, retirement, Christmas gifts, children's allowances, and so forth.[59] One feels awful when tampering with these assignments, and can be punished by social sanctions for doing so. Small businesses have petty ("petite") cash on hand; the rest is "tied up" in commitments and investments. No professor who has received a research grant may spend the money however she pleases. No department head in government, academia, or business who gets an operating budget from "higher up" may deconstruct the categories of spending to which the money has been assigned. Indeed, more often than not, these monies are placed into separate "accounts" (an interesting word in this context), accessible only under the watchful eye of an independent auditor. On a larger scale, compliance with government mandates by business is enforced through the regulation of expenditures, for example, on pollution controls, job training, safety measures, medical leaves, etc. These mandates stand in lieu of the imposition of higher taxes that would be used to fund government expenditure in those areas. From the business owner's point of view, both regulation and taxation are roughly equivalent reductions of his or her freedom to allocate cash revenues as he or she sees fit.

In all these cases, the freedom to spend money in any one of a *variety* of ways begins only where constraints from above are exhausted and some limited range of options for action—some freedom—remains, opening like a room at the end of a hall, or like a hand, with fingers waving, at the end of an arm.[60] Conversely, the right to pool income, regardless of source, and then to allocate its uses anew, represents the organizing authority of the agent doing it: individuals with their wages, businesses with their profits, governments with their taxes.

Moreover, money itself, the *stuff*, varies considerably in accessibility and transferability. Often size-sensitively packaged by banks and financial institutions (going all the way back to the Federal Reserve Bank), sums of money can take the form of hard currency, treasury bills, bank notes, checks, certified checks, traveller's checks, E-cash, inter-bank drafts, certificates of deposit, coupons, money orders, credit card debt, etc. And every year brings the invention of a dozen new quasi-monies. When the Federal Reserve changes the discount rate (the interest it charges the nation's commercial banks) or when it changes the reserve deposit ratio (the legal amount of money commercial banks must have on hand relative to outstanding loans), money is made or destroyed at the source and in its most abstract form: a set of ledger entries on paper, bits in Federal Treasury computer memories. And what is accountancy if not the art of making the passage and packaging of money legitimate, while preserving as far as possible that money's inherent capacity to bestow freedom upon its owners?

Money is an important token of freedom, and becomes more so as society turns to markets to allocate more and more of its goods and jobs, as I have said. But through its wrapping, shaping, earmarking, coloring, packaging (metaphors proliferate here), money can also re-enter the regular token economy in disguise, as it were—as a substitute for or component of other tokens at several other strata. We discussed this substitution earlier under the rubric of efficacy, proxies, and warranting. But we did not discuss exactly *how* this is done with money, which is *by attaching a bundle of conditions and promises to a sum of money*. These conditions and promises are conveyed by a flurry of other, accompanying, tokens, many of which are contained in narratives of the money's origin and intended use. Complex? Yes. But effective. Some examples:

If, at your wedding, I give you an envelope with a one hundred dollar bill in it and say "Marcia and I wish you the very best," we—Marcia and I—also have constructed an approval token *with* the money, around the money.[61]

If I press a fifty dollar bill into the hand of a building inspector, I am (illegitimately) offering him a token of approval (which he will likely convert into freedom as he buys something with it directly, without depositing in his bank)...this in return for a measure of legitimacy that it is in his authority to give.

When I buy property—be it land, or a building, or a patent—I pay a sum of money not just for the thing itself but for a bundle of exclusive *rights*: to hold it, use it, to exclude others, and to sell it again. Part of the money price indicates the value of those rights to me, and part the value of the material good per se.

Consider the payment we call a *tip*. Surveying monetary practices that emerged earlier in this century, sociologist Viviana Zelizer observes, "(e)specially when it came to exchanges between strangers, money gifts became controversial currencies, symbolizing the inequality of particular social relations." The *tip* in particular, she continues,

> was a strongly contested category of money, partly payment, partly gift, sometimes defined as a token of appreciation but other times rejected as an insulting dole. Again, money given to poor people balanced precariously between gift, tip, rightful benefit, and payment for services. Whether a given transfer counted as payment for services, lawful entitlement, or a discretionary gift concerned the parties so much that they erected visible boundaries among the categories, and fought over the locations of those boundaries.[62]

Money in *loan* is also a token of confidence from the lender to the borrower. Borrowed money always comes with conditions upon its use or repayment, the stringency of which varies inversely with the degree of confidence being shown by the lender. Woe to the borrower who spends such money freely instead of committing it to productive use. The freedom gained is short-lived, and the freedom lost in repaying the loan is greater. We may no longer have debtor's prison per se, but it is prison enough for most people to have every penny of their income (or profits) pre-committed to paying off a debt.

Real (i.e. inflation-adjusted) interest rates are, it is often said, the price of money. But very few people buy money just to hold it. They "buy" it chiefly to spend it again on consumption or investment goods, and sometimes in order to lend it out at a yet-higher interest rate. But from our point of view, interest is best understood as the price of the freedom to buy x or y or z *now* versus the freedom to buy them *later*, the former freedom being valued more highly than the latter by the borrower, and vice versa by the lender. (Actually, the lender may not be interested in x or y or z at all, now or later, but rather in his own future objects of desire, p, q, and r.) If a borrower thought that, in the natural course of events, his purchasing opportunities would become greater in number, he would be more patient. He might not borrow at all. *Interest paid is the price of impatience; while interest earned is the reward for catering to the impatience of others.*

Co-workers in a firm receive more than just money for their work; they also receive approval and legitimacy tokens from their employer and, importantly, from each other. The traffic in these tokens form a second economy entirely. In this token economy co-workers ostensibly at the same "level" and doing the same job are likely to have differential *status* in each other's eyes.[63] No sooner are status comparisons made than hierarchies form. If salaries become spread over some range, that spread, made known, quickly returns to reinforce the status hierarchy, the "pecking order." Whether in real estate, car sales, or university teaching, *she*, everyone knows, is the "top earner" in the company (or department) and *he* is the bottom one. Ironically, as Robert Frank shows in *Choosing the Right Pond*, it is likely that highest-status workers in a company—any company—are sacrificing some of their true earning power (the money they could earn, say, at a better firm if at a lower rank) in order to maintain their high relative status.[64] If a worker prefers to earn, say, $300 per month less at firm A than firm B because at firm A she is the "top earner" while at firm B she would be in the middle of the pack, then she has implicitly put an exact dollar value on the extra status-conferring tokens she receives at firm A. Indeed, she pays for them continuously in forgone money earnings.

And how many of us have come away from an unsuccessful attempt to get a raise with cheeks aglow from compliments, or with a new title and responsibilities instead?

Indeed, just having money and spending it visibly also engenders feelings of legitimacy. It proves to all—and not the least to oneself—that one is an *adult*, with one's *own* money, with autonomy. At the very least, it induces a show of respect from whatever salesperson one deals with—which is why, all too often, people with low self-esteem and not enough money spend it anyway wherever such respect is shown and regardless of the nature or usefulness of good actually bought. Many with low self-esteem and too *much* money behave the same way, of course, but at luxury stores.

If we commonly *do* care where the money comes from, what it is *for*, and what we have to do to earn it, then, at the risk of mangling Rousseau, we might conclude that "money is born free, and yet everywhere is in chains." Money—like generic matter, empty space, and eventless time—is all but meaningless when unmarked, uncaptured, unnamed, unharnessed, undirected by our intentions and interactions.[65] Freedom, we seem to know, should not be free.

In the terms introduced in Chapters Two and Three, however, we might state our conclusion like this: in an advanced market economy, money in its purest form—which is cash serendipitously found or won—conveys/bestows pure freedom, which is the addition of potential complexity, C_{pot}, to the life of a person or institution. But since it is rarely encountered without social, legal, and physical constraints on its imaginable uses, money also imparts some degree of organization, R, to its users and its use: organization in the amount given by the formula $R^2 = C_{pot}^2 - C^2$. The permissible, appropriate, or necessary uses of any sum of money are always fewer than its technically possible ones. Recall that $\Omega = \sqrt{CR}$, and that $\boldsymbol{V} = \Delta\Omega$. Money, we can then say, *has positive value when its use increases the complexity-and-organization of the life of the person using it, and has zero or negative value when it does not.*

It's as simple—and as complicated—as that.

Money to the poor

If the freedom that money conveys is curtailed and shaped in a hundred ways, then this is most especially the case with monies earned by, or given to, the poor.

In the U.S. at the time of this writing, the states began receiving block grants from the Federal government to provide most of the welfare services once provided *by* the Federal government. The states must provide those services in any way they can, even if this means subcontracting these duties away to private companies. Although new and substantial, these monies properly represent only a small increase in the state legislature's total freedom to allocate the funds they have. Welfare block grants represent—indeed they legally constitute—security for the poor of that state, the money the poor *must* have for shelter, food, basic education, and for services (such as job-training, child care, and transportation grants) that help them get and keep jobs. For the state to use these funds in other ways—to divert them towards road building for example—would be to abuse the authority given them. And so, state governors always argue for greater "flexibility" from the Federal government, and the Federal government—once the decision was made to allocate extra funds to the states at all—argues for "accountability" and tries to impose standards, even procedures, for its disbursement. The battle here, by many names, is the battle for the freedom that is in money's "nature" to convey.[66]

At the individual level: if the poor receive food stamps (or housing or education vouchers) instead of cash from the state or Federal government, it is because the very fact of being poor is taken as evidence that they—the poor—cannot handle the freedom that money in the form of cash gives. Perhaps they will gamble it away or spend it unwisely; perhaps they will have it lifted from them by unscrupulous exploiters of their circumstances or naïveté. These concerns are rarely voiced, of course, for they are rather condescending. But when it comes to state welfare, the implicit policy is the same: the very poor, like children, are not to be trusted with anything more than small sums of "cash assistance." Better is the direct assistance of housing or food, or coupons, stamps, and vouchers and other forms of money drained of its capacity to confer freedom.[67] Beggars can't be choosers.

If this can be said of the hobbled money given in charity and aid, what might be said of the wages paid the working poor? Does this money—which is usually handed over in the form of a cashable check—give the same degree of freedom that the same sum of money would give a wealthier person? The answer, of course, is no.

The average worker cannot in fact do *anything he wants* with his money wage. It gives him, in fact, rather little freedom. In *theory* he is free to buy anything he wants; for such is the nature of money in a modern market society that it can be used to acquire all types of goods from a vast range of sellers who do not care who one is, where the money came from, or what else one does with it. But in practice, our worker cannot do anything he wants with his wages, at least not responsibly or for very long. Starting with adequate food, clothing, shelter, and health-care for himself, the average worker fairly *must* spend his income in *certain* ways, ways that satisfy his own lower needs and those of the people in his circle of concern. The less he earns, the less free he is, especially if his work is also as time-consuming, physically exhausting, socially humiliating and mind-numbing as low-wage work usually is. The fact that as a law-abiding citizen of a democratic country, a poor person in America has no less *liberty* than a rich person does, provides little comfort.[68] In our freedom-obsessed culture, the temptation is strong to divert money-for-necessities towards such instant freedom-delivering goods as alcohol, drugs, borrowed money, and flight.

Now it might be argued that although the lowly-paid worker's freedom is limited with respect to what *category* of goods he can buy, the range of options within those permissible-because-affordable categories—precisely *where* he could live, *what* he might eat, drink, hear, see, or wear, what brand-names he can buy—may yet be reasonable, even large. Indeed, it can be argued that the signal achievement of modern, industrialized, market-oriented economic systems is the huge variety of inexpensive material goods and entertainments they have created. Look at television, the movies, the music store, the outlet mall. Consumer choice in small-expenditure goods abounds, as a visit to the breakfast cereal aisle at the local supermarket will demonstrate.[69] But no one who has ever been poor will mistake this arena of freedom for the freedom to choose whether, when, and where to work, how often and where to take vacations, what and where to study, what city and neighborhood to live in, and so forth. These choices require handsome incomes to realize, or significant wealth. Nor does a visit to K-Mart or Sam's, for all the variety on view, match the welter of discriminations faced by those who can afford to shop also at Nieman Marcus or Bergdorf Goodman.[70]

Notice that I had to say "shop *also*" in the previous sentence. For if the wealthy can afford everything that the poor can afford *and more,* then, time and imagination being equal, the freedom of the wealthy must be the greater, almost by definition. Against this conclusion though, many would point to the fact that the wealthy *preclude* themselves from many if not most of the options that face the poor. There are restaurants they will not go to, stores they will not shop at. There are neighborhoods they will not live in, clothes they would not wear, cars they would not drive, and so forth. Granted: this self-preclusion from *every*thing the marketplace has to offer limits the rich person's freedom. But from this it is sometimes asserted that somehow it "all equals out," i.e., that when it comes to freedom (or total satisfaction, or happiness), the rich are not *really* better off than the (other-than-abjectly) poor; it's just that the poor satisfy their needs among themselves and with cheap goods while the rich satisfy their needs among *them*selves with expensive goods. If anything (the argument continues), the rich, either weighed down by their greater responsibilities or the fear of losing their money or made tense by their constant need to maintain appearances and the right social connections, may be decidedly *less* free than the poor. Each night, you see, they fret about deals and taxes, about the eyebrow movements of titans, about slippages of their prestige or the value of their properties...and dream of giving it all up, of jumping on a freight car with a reed of grass between their teeth, of buying a little place in the country and raising...horses, or...

Exactly! one replies: although rich people and poor people alike may long for release from the anxieties and burdens of life, in an advanced market economy only the rich can *begin* to afford to do so. Although he may continue to work and to worry, the rich man is closer to being able to realize his freedom at any time, and he knows it. Possibilities lie open to him that are not mere pipe dreams dependent on winning the lottery. (Even the daydreams of the rich, it seems, are more satisfying than the daydreams of the poor. Containing less self-doubt, self-criticism, or guilt, the rich dream of greater success and pleasure yet.[71])

The rich person also need not stand in time-robbing lines nor sit on comfort-robbing plastic chairs, feeling bullied, filling out tedious forms and waiting for attention from government officials or doctors or would-be employers. He is not tempted by "free" checking accounts with their punishing below-minimum-balance charges or by "instant credit" at usurious interest rates. The list of freedom-robbing procedures endured by the poor in order *to save money* is long indeed.

Besides, the rich person's preclusion from certain inexpensive marketplace options is a limitation he largely wills upon himself—something he is *persuaded* of, at least, and not *coerced* into. He can always "slum it," go incognito, or travel far from home if he wants to indulge in a poor man's pleasures. This very possibility makes his world larger, and him freer, at all times.[72] And should he actually choose "the simple life," we can be sure that it will be a secure and gracefully-appointed simple life, at all times voluntary.

In an advanced market economy, then, where even the barest necessities are bought and sold, money does not really begin to confer freedom until it is *enough* money. "Milk money" gives us very little freedom; it just buys a schoolchild's milk. Our initial blanket assertion that money *is* a token of freedom—money in any quantity and in anyone's possession—stands qualified.[73]

This does not weaken the argument I am trying to make however, which is that money delivers choice, autonomy, and freedom. For consider this: in theory—and perhaps for the better—the world *could* be so arranged that non-money goods and tokens on the one hand, and money tokens on the other, each played distinct and inviolable roles, with non-money tokens negotiating, say, our lower needs and money negotiating *only* our need for freedom. In fact we find that the world is *not* so arranged. Money is everywhere: it is the means to acquire bread and shelter no less than the means to acquire *paté de foie gras* and ocean cruises, a way to give personal gifts as well as to buy approximations to justice. Why is this so?

The penetration of money into all areas of social life over thousands of years is due, we can say again, to money's unique, Gresham-evolved capacity to address most efficiently a major part of the freedom component of the satisfaction provided by goods and all tokens.[74] Moreover, the other five needs can often be addressed by agreements as to a given sum of money's use and conditions of transfer, all as I argued above. In other words, the reason that money "makes the world go around," the reason that "money talks" and why "cash is king" is partly because

(1) the need for freedom is always present in us to *some* degree, regardless of the satisfaction state of the other needs,[75] partly because

(2) under the extreme division of labor and the massive geographical extension of trade, most of the necessities of life are made available to us, now more than ever, *only* through the sort of market exchange that money facilitates (and that modern economics restricts itself to describing), and partly because

(3) just as it is cheaper to take generic office-building or warehouse space and *label* it a city hall or church rather than *build* an "old-fashioned" city hall or church out of brick and plaster and windows that open and close, so is a sum of money with a few contractual "strings" attached to it frequently a cheaper way to fabricate interpersonal as well as institutional tokens—not only tokens of freedom but also, through the relatively effortless re-packaging, tokens addressing other needs too.

In a fully developed and elaborated market economy, money can be directed towards satisfying any one or all of our needs, if not completely, then to a significant degree. This has the consequence of giving to money (a) potentially the largest *range* of value of all the tokens, and (b) the least sufferance of decrease in value per unit (read "marginal utility") with the having of greater quantities of it.[76] Money—the token, ironically, most identical with itself inasmuch as one dollar bill is perfectly substitutable for another—moderates the law of diminishing marginal utility precisely because this self-identicality is an illusion, one that is possible to maintain only by ignoring the fact that almost every *real* sum of money is 'always already' packaged and allocated, as we have been discussing. Although they may look superficially the same, *this* bundle of bank notes has a different destiny and origin to *that* bundle of bank notes. The fact that such "differences in destiny" can exist, and indeed proliferate, however, is made possible precisely by money's prior universal acceptability in the marketplace in exchange for anything once those origin- or destination-labels are erased, which is often a simple matter to accomplish.

And so it goes, money "circulating" between us with stipulations applied and removed, erased or added to at each transaction, and the stipulations themselves constituting the token-message "this is to build your (show my) confidence, ""this is to help you find legitimacy," "this is to buy you security," or "this is to ensure your survival."

And here we can begin to see how the expansion of markets and the greater use of money reinforce each other, all as Adam Smith saw when he noted that the limit to the division of labor depended on the "extent" or size of the market. If, magically, people were no longer to make price a factor in their purchasing decisions but instead bought exactly and only the *right* thing for themselves no matter the money-price, the entire edifice of economic theory would collapse around the absence of its fundamental tenet, the law of supply and demand, a "law" that depends critically on there being a common currency between suppliers and demanders, and on the drive by both sides to maximize their gains in terms of that currency. Markets would not disappear entirely, perhaps, but would transform into almost unrecognizable institutions with a dozen quasi-currencies of limited domain, their efficiency compromised and freedom curtailed, but perhaps with other things—quality, commitment, dwelling, discipline, trust, abiding social relations—in fuller flower.[77]

Money to the rich.

Now what might be said of the meaning of money to the *very* rich? I mean to people who, for the most part, no longer think of money in terms of what it can buy for them materially, nor in terms of what greater freedom it offers? Very likely, they are interested in what money itself can earn, and this for interesting reasons.

What, then, *can* money earn?

Certainly, through investing it and lending it with a modicum of wisdom, money can earn more money. However, this puts our rich investor back at square one, with yet more money at his or her command and the problem of giving "having money" some meaning.

Starting with gifts to his or her own family members and ending with humanitarian aid at the international scale, the wealthy person can also *give* his or her money away to those who need it more, and this over ever-widening circles of concern. This purely philanthropic path is well understood and socially sanctioned. Equally well understood, and at least grudgingly sanctioned, is the idea that the beneficence of philanthropists may not be totally selfless. The benefactor wishes to earn prestige and respect with the money they "give" away, indeed *because* they give it away. As Julie Ostrower reports in *Why the Wealthy Give*, the rich become philanthropists largely so that they can become members of the select group called Friends, Donors, Patrons, or Angels, or simply "philanthropists". They want to appear in public with other philanthropists; they want to recognize and be recognized as philanthropists; they want to "network" with their peers and inspire respectful if not supplicant behavior from almost everyone else. Proof? Very, very few of the wealthy support good causes anonymously.

The average poor person coming suddenly into the possession of a large sum of money would, most likely, be helped only into a poorly-founded, highly exploitable, and thus temporary experience of freedom. But what about the person long accustomed to having money? Is she free? Potentially—yes. But actually—perhaps not. The *capacity for realizing freedom* is itself limited. For example, a person can have a great deal of time and money but not the *imagination* to be free. Or a person might have alienated so many people the process of earning their fortune that they have become lonely or self-hating and quite needy of approval. And there might be psychological reasons—family "demons," say—that prevent certain wealthy individuals from converting their wealth into freedom for themselves *or* into generosity to others. Under these circumstances, what remains to be done with lots of money, be it "old money" *or* new?

According to our theory, a doubling back must occur: a return to the unfinished business of satisfying one's lower needs more perfectly, in every way, and once-and-for-all. The threshold of "enough satisfaction" for these needs must be raised, or equivalently, S_{max} must be raised to new and perhaps impossible-to-achieve levels. What was a luxury must now become a necessity: "*C'est le superflu qui est le necessaire.*" The winning of prestige and respect, which are expressions of legitimacy and approval, return to prominence. Even the need for security can come back, this time as the need for *ultimate* security and its corollary force, *power*.[78] And finally, beyond this, the deepest need returns: for the perfect satisfaction of one's need for *survival.* This begins with the desire for complete and continuous physical comfort, goes on to the elimination of all enemies and contact with disease, and ends with the "demand" for immortality. (One thinks here of Howard Hughes in his last years.)

Let us focus our attention a little higher up on the stratigraphy: on the need for prestige and respect. Consider how common it is for many of the wealthy, little educated in art, nonetheless to collect art (likely using consultants), and to endow and name art museums. Consider how many buy film studios so that they can "be producers," newspapers so that they can "be publishers," wineries so that they can "be vintners,"...indeed how often the very rich buy businesses of kinds that have nothing to do with what they know about, or what originally earned them their fortunes (say, oil or scrap-metal or broiler chickens) but that deliver the greater social *cachet* they crave. What lies behind this?

Recall that the value of a single token typically decreases with the frequency and number of substitutable or even similar tokens already received. This means that the satisfaction gained from receiving the approval of, say, the first ten people around you is matched by the satisfaction gained by receiving the same sort and degree of approval from the next thirty, then hundred, then thousand people. To feel the same happiness, in other words, ever larger masses of people have to know your name, think of you fondly more often, "love you," send you fan letters, and so forth; either this, or even-more-*important* people than you have to give you their approval (in which case the absolute numbers are not as critical). In either event, as this expansion occurs, the effort required and the demands put upon you are multiplied until a sort of equilibrium is approached, a steady state ceiling, which it is all you can do to maintain. But, alas, you find that still not everyone adores you, not every important person thinks *you* are. You must own a noted winery, especially if it loses money. Ought you to be satisfied with this incomplete state of affairs? Of course. But you may not be. You may have more money, time, and imagination than you have wisdom, in which case you might carry on regardless, quixotically, neurotically, trying to wring the last bit of recognition and approval from the last person on earth.

Enter, now, another paranoia. What if people dissemble? What if they do not really approve of you but just want your money, or to be around it? Now all evidence of their respect is *sus*pect. (In your heart of hearts perhaps it always was.) All the approval in the world from them is hollow because it is entirely self-serving. What then?

Well, now it is between you and God, or you and The System. The stratum of need at risk has dropped one level, to legitimacy, and not just the legitimacy that can be offered by other people (for this too can be bought from those who, having some authority, want freedom in the form of your money), but the legitimacy offered in-the-abstract by "society" for your very *role*, your *position*, your *standing*. This legitimacy in turn must be backed by God's (or Science's, or Law's) sanction of the principles by which the society as a whole works—be those principles those of aristocracy, state socialism, capitalism, or providence. In all of these contexts, the person who controls large sums of money can point to his continuing authority to do so as evidence of his doing the Right Thing by God and Country. The capitalist in particular makes money, he says, for its own sake; he enjoys the *process* ; he enjoys the winning and not the winnings, and feels assured that his enjoyment pleases God ("God") too.[79]

Or, uncertain in the still of the night that he or his forbears deserve the money over which he finds he has control, uncertain as to whether he has *earned* it or *won* it by luck, the wealthy investor seeks to establish this truth: that unlike the gambler his actions are both *rational* and have *positive social value*.[80] They are rational because his success has a reason: it is due to his virtue—his courage in facing down uncertainty, his perspicacity in placing the right bets, his training in finance, his patience, and so on.[81] They are rational because he exercised his freedom to choose which properties or securities to buy and sell, which partners to work with, which loans to make or deals to enter into and so forth—because he took informed, "calculated" *risks*. They are of positive social value because, by investing and lending his money, our man of means is *ipso facto* making money for everyone else. He thinks: am I not keeping scores of accountants and lawyers busy? Am I not putting engineers and truck-drivers to work? Do not whole floors of secretaries, dealers, and clerks stretching into the fluorescent distance daily pass my wishes from one to the other in some form or another? Do I not, with every loan and phone call, "grease the wheels of commerce," "sow opportunities wherever I tread," etc.? And as I travel about, or as my agents do on my behalf, do I not give "useful employ" to scores of restaurateurs, flight attendants, masseurs, launderers, drivers, and hoteliers the world over? If the answer to any of these questions is Yes (and if I do no unnecessary harm) then my riches are surely my worthiness made manifest.

Our wealthy investor may congratulate himself too much, but he not entirely wrong. One of the reasons why a degree of wealth- and income-inequality is desirable in a society, even necessary, is that it is better for *everyone* if more money finds its way into the hands of people who best know how to direct it towards productive purposes—that is, those who will invest and lend it with some acumen—rather than into the hands of those who would only spend it. That there is social value in making money by doing "nothing more" than investing and lending it has in modern times become inarguable.[82]

But the gambler still sees in the investor a brother. Is he deluded? When it comes to his psychological relation to money, I think not, or not entirely. A taste for facing freedom head on is what the gambler and the active investor shares—this, and the fascination with the currency of freedom that peculiarly is money.

Some observations on gambling and investing

"Money is coined liberty," wrote Dostoevsky in his early memoir, *House of the Dead*. Our whole theory of money could hardly be put more succinctly.[83] We should remember, however, that Dostoevsky was to become a compulsive gambler. We remember this not in order to condemn Dostoevsky and thereby diminish the worth of this insight, but to remind ourselves that gambling indeed is a most radical opening of oneself, by choice, to chance. It is at once the ultimate abdication of freedom as self-determination *and* the ultimate engagement with the uncontrollable Will of the Universe, in *its* freedom, to deposit itself before our unbelieving eyes just *so*. To gamble is to put oneself in alignment with the very origin of "freedom" itself, which is either the world's physical indeterminacy as expressed in the Second Law of Thermodynamics (if not in quantum uncertainty itself), or our ignorance of its immense, if deterministic, complexity—Fate. No matter. To gamble is to give oneself over to unknowingness. It is to give oneself over—with an arbitrary choice, with a hunch, and with confidence—to *what might happen.* It is cutting oneself loose from any known chain of cause and effect, it is a leaving behind of all logic, duty, and long-term self-interest, and leaping into the void of pure possibility.

Tragically, ironically, gambling can easily become habitual, then compulsive, then addictive, and thus bring about the very antithesis of personal freedom: enslavement. Sooner or later, gambling wraps the gambler's will in coils whose tightness match exactly his dread-cum-fascination with the open maw of the indeterminable future, with the black wind that blows towards him alone, unfurling his particular unknowable fate. He cannot get up from the table. He cannot turn away from his winnings because they represent the ultimate legitimation of his being alive, signs that the invisible forces of History have accepted him and will, for their own reasons, bear him along safely.[84]

Or will they?

With this doubt gnawing at him, the gambler's guiding need erodes to a lower stratum, to security. The stakes become concomitantly weightier. He must test fate again and again. His only vindication is winning, which means surviving to play another round, and another, until finally he can walk away from the table through a crowd of admiring eyes feeling like a Prometheus...or else like a martyr, with nothing.

Some gamblers, it is said, *want* to lose. Indeed, scant as it is, the psychiatric literature argues that most compulsive, habitual gamblers have an unconscious desire to lose and lose again until, undone by the gods, they are reduced to appealing to the care of others—care that they thought they deserved all along from a parent, from family, and perhaps from God.[85] The gambler wishes himself out of control. "Freedom's just another word for 'nothing left to lose'," sang Janis Joplin, and this captures kind of freedom that the ruined gambler has finally found.[86] With nothing but his very life to bet—he turns to spinning the barrel of a revolver.

Recreational gamblers, of course, know that in the long run they will lose money. Keeping their stakes low, they accept this loss as the reasonable cost of the entertainment provided. For them, gambling provides a thrill no different in strength from that a carnival ride. The question for us, here, is this: in what does the positive value of the thrill of gambling reside?

Well, certainly the thrill lies not very much in the value of winnings or losses. The size of the stakes at a church bingo hall or a friendly poker game are not large enough for that. It consists, rather, *in the clarity of the engagement gambling provides, by design, with our need for freedom.*. When people spend most of their lives being ordered about, feeling tied down by law, duty, or routinized work, the need to exercise their freedom absolutely becomes significant—if only for a limited time and in a liminal space. It might be the freedom of action that opens up inside of a game or sport. It might be the freedom of speech one enjoys while sociably drunk. Freedom might be even be found in passive entertainments, like TV and movies, if vicariously. Indeed, all passive entertainment are vicarious life: actors and athletes doing and feeling what we wish (or dread) that *we* could do and feel, taking chances, breaking with conventions and so forth. Gambling follows this pattern too, but, because one's own money is at stake—*real* money—gambling is not so abstract or vicarious. It is real, and thrillingly so, allowing us to feel perfect freedom with real, if synecdochical, sums of money. Consider: in all forms of gambling and wagering, the options we face are many and clear. The reasons for choosing one option over another are deliciously subtle; they wander like a breeze over a harp…until the moment of decision arrives, almost of itself, and we pluck *this* note, this option...and place our bet. And just as happily (at least in low-stakes, casual gambling) the consequences of our choices are limited in seriousness—just as they would be in real life were we complexly, well-foundedly, free.[87]

I would not be so interested in gambling if gambling—or "gaming," as the industry likes to call itself—did not represent around 6% of the U.S. Gross Domestic Product. (Groceries account for about 8%.) If we add to this the amount of money-in-search-of-money wagered at the "tables" of the New York Stock Exchange alone every business day, taking chances with one's money comes to one third of the annual GDP (or $2 trillion).

Be all this as it may, on an intellectual plane it is a short step from thinking about gambling to thinking about risk-taking itself in all walks of life. We realize that we cannot feel the satisfactions of freedom, we cannot *have* freedom, if we will take no risks at all. From crossing the road in the middle of the block, to picking stocks, to accepting a marriage proposal...every moment of being alive is a step into uncertainty. Life is full of gambles. To be ongoingly free is always to have alternative possibilities as to what to do, what to think, where to go, what to wear, when to buy (or sell), whom to be with, what to say, what "card to play," and so on and so forth—alternatives, moreover, which can be preferred, chosen, ignored, or abandoned to chance. To feel free, furthermore, one cannot also feel stifled by opinion, convention, or law, and one cannot be preoccupied with the possibilities that are being neglected every moment one is doing one thing rather than another. One has to let go. Nor can one be paralyzed internally with regret at the options and opportunities that one once had and that now have passed into oblivion. To be free is to be free of the past in these ways. But complementarily, and perhaps more importantly, to be free is also to have *faith*—scientific or religious, as the case may be—in the "productivity of the future." One must believe that Reality in its infinite complexity (or God in His infinite wisdom) will continue to bloom forth with (to produce) unpredictable events and constellations of events that will offer us new choices and fresh opportunities. On the stratigraphy, this is why freedom is premised on confidence: without confidence in our own ability to choose well, the prospect of more freedom will cause us only anxiety.[88] And besides, what better feeling is there than feeling *lucky*?

All this, life provides, and gambling rehearses.[89]

Now, one who invests her money conservatively—say in Federally insured (FDIC) savings accounts or in U.S. Government treasury bonds—does not feel herself to be a gambler at all, and might well resist the connection being made here between investing and gambling. Indeed, she argues, she would be gambling if she kept her money in a mattress or in a private safe because there it would run the risk of being stolen (and, besides, lose value). If she wanted a little more interest than the average bank would offer her in return for the use of her money (even as, at a fee, the bank provided near-total security in "physically" safe-keeping it), she would do as the bank itself does with its depositors' money: that is, she would divide and spread her money simultaneously over a large number of more risky investments—each of which are more like the gambler's bets—in the knowledge that the probability of *all* of these risky investments making or losing money at the same time is very remote. The inevitable winning gambles she makes will compensate for the inevitable losing ones. In fact, in a healthy and expanding economy, she can expect that the positive return from the winners will outweigh the negative return from the losers by an amount equal to or greater than what would be returned to her at the prevailing, "perfectly safe," savings account interest rate at the bank. Instead of relying on the banker's insurance mechanism using the law of large numbers, she has constructed her own. Her money will grow as the economy as a whole grows, the more closely as her investments are dispersed throughout all of its sectors.

Now, a casino gambler could, similarly, gamble on all the numbers in a game and/or in all the games on the floor simultaneously, just as, with a few hundred dollars, a bettor could bet on *all* the horses in a race. But unlike our diversified securities investor, both casino and horse-race gamblers would find that they could only lose money, this even though they have diversified their "investments." For in the gaming industry the odds are set by the casino owners, lottery officials, and bookies in such a way that in the long run, on average, *they* have the edge. This is the fee they charge for the entertainment provided: entertainment constituted by both the exotic settings they construct and maintain—the casino, the track, the riverboat, the croupiers, the chandeliers—and the ritual situations they construct in which *some* people, testing their luck, do indeed win, proving their chosenness before all.

Gamblers know, of course, that the odds are stacked against them, as I remarked earlier, but not by so much that they do not stand a substantial chance of winning on any given occasion. Croupiers and blackjack dealers, paid by the house and by tips from gamblers around the table, need not refrain from congratulating winners or commiserating with losers. Indeed, with the odds securely on their side, it is their *job* to create a community of players that are enjoying themselves and competing with each other, that are seeking and awarding confidence, approval, and legitimacy tokens from each other and from the dealer, all in a mini-psychoeconomy built around the machinery of the game as though it were a workplace... Our prudent investor, on the other hand, will likely win because what she invests in is the economy as a whole, which (typically but not always) grows in size, complexity, and in the need for freedom-as-money. She gambles; but she gambles in a growing enterprise. She gambles not *in* the casino but *on* the casino itself.

Is the extra measure of freedom that our investor forgoes matched precisely by the *gain* in freedom of those who can now use her money? She has committed herself to waiting patiently for her money's return, but *they*—the ones now "flush" with her money and perhaps with the money of other investors—get to contemplate options they otherwise could not have. It's hard to determine who profits more from this arrangement, the lender or borrower. One simply trusts that as financial markets approach the ideality described in Chapter Eight, so the freedoms lost and gained—present freedoms for future ones on the one side, future freedoms for present ones on the other—balance out in exchanges of **Type I** or **Type II**. Returns on investments, interest on loans, dividends to stockholders, and so on, act as incentives for people with more freedom (as money) than they *currently* need, to transfer it to others—to people who need more freedom *now*. In this, the entire financial system and its various "capital markets" work as a moral social force, encouraging the sharing of resources amongst strangers, and in particular the resource—money—that conveys and apportions the freedom component of the market's complexity-and-organization.

The distribution of time and imagination, those other two ingredients of freedom, fall to other mechanisms.

IV. Gresham accepted, Gresham reversed

Left to itself, as we have seen, Gresham's Law simplifies, reduces, lightens, speeds, and organizes trade by eliminating of all of the non-valued traits of the goods exchanged and of the market itself. This happens not just with money but with goods exchanged *for* money and under pressure to cost less. It happens more swiftly and surely with goods that are (also) resellable.

And it happens with tokens when tokens higher on the stratigraphy replace tokens lower on the stratigraphy without adequate warranting. Gresham's Law ensures that the complexity of a good *decreases* whenever it can.

We have also seen how biological evolution, by contrast, does the opposite. It does not eliminate traits that are not useful. Not-being-harmful-to-reproduction is good enough. Through the mechanisms of DNA replication, evolution saves the attributes of its "subscribers" from generation to generation, reproducing them not entirely faithfully but "trying," always, to add a bit that might turn out to be useful but that otherwise, or until then, goes along for the ride. These attributes manifest themselves in myriad ways: as unnecessarily glorious coloration and form, as unneeded reserves of strength or mental capacity, indeed, as all the harmless flaws, peculiarities, and habits that every species accumulates...until they prove to be its undoing. Nature is rococo by nature. Complexity *increases* whenever it can.

For all this, when we see Gresham's Law and what I have called the "logic of efficacy" busily stripping away the finer features of some valuable good in generation after generation of production, we should not *rush* to the judgment that it is a "de-evolutionary," that it is a value-negative movement. Our caution (in rushing to judgment) has two related reasons.

First: increasing a good's simplicity—or lowering its complexity, *C*—*can*, under certain circumstances, lead to greater complexity-and-organization, Ω, in the person that uses and experiences it. Those "certain circumstances" occur when the person's life (with respect to the need that the good addresses) lies clockwise of the ridge of omega. As long as the reduction in *C* is accompanied by an increase in organization, *R* the result will be positive in value.[90] One needs little theory, though, to make this equivalent observation: some experiences and some goods grow too complex to do anyone any good, and simplifying them is precisely what is needed. As in gardening, overgrowth can and should be cut back. Moreover, since one's mental state is a function of the attention one is giving to the several different components of one's life, not *every* component needs to grow in complexity for the *combination* of them to grow in complexity-and-organization. Some aspects of one's life can and should be simplified to make room for others. For example, if one's workday is hectic, cluttered, and stressful, then knowing that one is going to go home to a quiet and simple environment may be just what is needed for "balance," i.e., for higher Ω on the whole, even though, taken by itself, that same quiet and simplicity would quickly become boring, empty, and oppressive.

Second: we ought to check whether, by progressively shrinking the contribution of a given good's material complexity to its value, Gresham's Law is instead transferring the site of value-production involving the good out and away from the good as such and into the larger system of comparison and exchange, where it manifests itself in the complexity-and-organization of the relations between *people* rather than in relations between any person and the good as such. If this is the case, then we have little reason to object. After all, how much of the pleasure of playing cards depends on the material quality of the cards? *Some*, to be sure, but rather little compared with the value of the social interchanges to which the cards give rise when they are played in a game, say, of bridge or poker. One may trade in next-to-nothings—in words, dreams, songs, gestures, bets, tokens—but if these next-to-nothings are being devised and traded in a complex-and-organized way among thinking, knowing, remembering, and planning beings, then it is quite possible that life is continuing on a rather higher plane, at a higher level of Ω, than if those "same" words, dreams, songs, gestures, bets, tokens, etc. were all slowed by Wagnerian size and huge material complexity.[91]

Case in point: Many fear that online chat rooms and email (the bad money) will drive out face-to-face social life in real places (the good money). But these fears might be ungrounded. People had the same fears about the telephone when it was first introduced. While in theory there is reason to worry, in real life the two forms of social interaction—online and face-to-face—might be mutually reinforcing, as when (1) people who find each other online are motivated to meet each other face-to-face, (2) friends who meet face-to-face stay in touch with each other online, or (3) people too shy to interact with strangers face-to-face are encouraged to take the first step. In these three cases, anyway, the introduction of a new, *less*-rich, and *less*-nuanced medium of communication than face-to-face dialog has the overall effect of enlarging and enriching lives, not of diminishing them. (And let us remember: money itself is the fruit of Gresham's Law.)

So there we have two reasons not to "condemn Gresham."

But if, by the same token, we see certain goods being hollowed out or pared down *without* the direct benefits of simplicity (in form of relief from too much complexity) or *without* clear compensation in other areas of life, then we *do* have cause for concern. We ought to be concerned, for example, with what happens to the production of "unnecessarily complex" and hard-to-resell goods such as works of fine art and architecture, liberal educations, basic science research, classical music performances, stretches of scenic, productive countryside, and long and abstract books about value. Many of these goods are not fully construed as *public* goods and are not eligible, therefore, for public subsidy. They must make their way in a marketplace of consumers who, deluged by choice, have ever-shortening attention spans.

We ought also to be concerned about the future of such Ω-uphill activities as mastering a new art or craft or language, playing chess, engaging in study and debate, visiting foreign countries, helping others one-on-one, inventing and staging memorable social occasions, sitting still, creating new businesses and institutions, climbing mountains, or, for that matter, racing cars. Are these to remain the province only of the leisured or driven rich while the rest of the population exchange their modest incomes for miraculously cheap food, shoes, and movies, and paper-thin, trading-card homes and educations? I say, No.

Some readers may detect a note of elitism in these last sentences: bread and circuses for *hoi polloi*. In fact, I intend no diatribe against popular culture. I offer, rather, a caution against the wholesale and mistakenly principled turning away from the production of quality or excellence in things (because it is "elitist") and towards accessibility, convenience, and low cost instead (because it is popular or "populist"). *Richness*, I am saying, *need not be just for the rich; and producing it, increasingly, for audiences who want it increasingly, represents a firmer basis for the continued growth of our economy than finding cheaper ways to produce what we already do.* Freedom, as wonderful as it is, and as foundational as it is to the American psyche, is only preliminarily found in market choice and physical mobility. More and better freedom awaits as the reward for commitment to difficult and worthwhile projects. This is something the founding fathers seemed to know even as they enshrined freedom—and its precursor, liberty—as the highest of causes.

In this light it becomes critical to understand when and how our free market system *does* succeed in evolving goods that are wondrous in their complexity, popular in appeal, and far from cheap; goods such as aircraft (and indeed everything having to do with air travel), automobiles, sports equipment, movies (and actors), music, advertising, special interest magazines, resorts, gourmet foods, medicine and medical equipment, and, of course (usually leading such a list) computers, communications networks, and their associated devices.[92] Many of these goods did not exist until recently, and all continue to "speciate" as well as evolve in functionality, complexity, and beauty *of their own accord*—that is, without extra-market help.[93] One could make a list just as long with new and more sophisticated services. How was this accomplished in the very teeth, as it were, of between-producer competition, extreme consumer price-sensitivity, and Gresham's Law? *If we could learn how whole "species" of products like movies and computers evolve in complexity almost as biological species do* (but much faster), *then all of the goods and all of the associated jobs and sensibilities that we claim to value highly and that still find themselves marginalized and impoverished would have a model to emulate inside of the market order.* They would not need to seek refuge in legislated extra-market support or in moralizing preservation movements.

What, then, does it take? What is the key?

Actually, we have already covered the elements of an answer in passing, in both this and earlier chapters. Here I gather them together and amplify, numbering them 1 through 5 for legibility.

1. Recall the two "strategies" illustrated by Figure 9.4. Why ever adopt Strategy 1, with all its problems? Because sometimes Strategy 2 simply cannot be executed. It might not be physically possible or economical to strip the good in question of its less-valued characteristics. For example, it might be cheaper to use high-quality wood throughout a piece of furniture than to use low-quality wood and apply a high-quality veneer. In other cases, the market for simple and cheap goods (in a given category) is already saturated, with prices already sunk to marginal costs and fierce competition among producers there. In both of these scenarios, it can pay the quality-producer to stay where he is and to adopt Strategy 1. That is, it can pay to educate, advertise, proselytize, and otherwise persuade customers and potential buyers into first noticing and then classifying his better good's 'extraneous' or hard-to-notice characteristics as essential to its value.[94]

How is this done? To say "through advertising" is too simple. I would point to consumer magazines and their electronic equivalents:

From *Gourmet* to *GQ* to *Vogue* to *Off Road*, magazines that foster connoisseurship are especially good at maintaining and increasing the number of attributes considered valuable in the goods they focus upon, editorialize about, and advertise. All celebrate the "narcissism of small differences," all form communities of interest, and all demand better quality yet from producers on behalf of those communities. "You shouldn't have to pay more for this quality," they assure their readers, "but if you *had* to, why, it would be *entirely* worthwhile." What an important service to society such magazines offer!

I am not being facetious. Consider the relationship that exists between *price* and *quality* from the consumers' point of view. Most people believe (correctly, I think) that the correlation between price and quality for most goods is positive but not perfect. Generally, you get what you pay for—but just "generally." Figure 9.5 illustrates what one might call "price-quality space." If one were to plot the market price against the (average, perceived) quality of certain competing brands or instances of any category of good, the distribution would look something like Figure 9.5b. At any given price there would be a number of goods spanning a range of different quality levels, and for any given quality level there would be a number of goods with a range of asking prices, except at the extremes.[95]

Figure 9.5 The correlation coefficient, **r**, of price to quality. In 9.5a, **r** ≈ 0; in 9.5b, **r** ≈ 0.5; in 9.5c, **r** ≈ 1.

Now, producer-sellers and consumer-buyers have diametrically opposed desires for in price-quality space, both desires for the *positions* they would like "their" goods to occupy, and for the *directions* they would like their goods to migrate in. Consumer-buyers apply pressure to move goods downward and to the right, i.e. towards lower price and higher quality, and they apply this pressure all the more strongly if the good is (judged to be) located near the top and left of the space relative to the norm or average. Contrariwise, the producer-seller applies pressure to move his goods upward and to the left, i.e., towards higher price and lower quality. He is tempted by lower quality because, all other things being equal, that means lower manufacturing costs, which, combined with higher price, means greater per-unit profit, if not also higher total profit.[96] (Note that in labor markets the worker takes the producer-seller's role, and the firm the buyer-consumer's.)

Figure 9.6 illustrates the strength of these contrasting desires as the lengths of a set of vectors attaching to a given good.[97]

Figure 9.6 The producer-seller's and the buyer-consumer's opposing desires in the space of product quality and price.

Society's interest in the long term, I would claim, is *to have both goods and jobs migrate upward and to the right, i.e. become better and more expensive.* This is *not* inflation; this is what it means for an economy to evolve.[98] And magazines—yes, those glossy, ad-ridden, eminently discardable drugstore/newsstand/waiting-room/arrive-in-the-mail magazines read by millions of people each day—perform a unique service, one not performed nearly as well by TV, radio, or other mass media. Think of a pair of vectors in Figure 9.6—one from the good's producer-seller, the other from the combined desires of its existing and would-be consumer-buyers—as *pulling* together on the good at its current position, like two ropes tugging a barge with a force that is proportional to their length. For the good to move to the right and up it is only necessary for the two forces to combine so that the resultant force is in this direction. For example, if the producer-seller pulls straight upward (i.e. tries to increase his price without adding extra quality or qualities to the good) and the consumer-buyer pulls only to the right (i.e. wants and expects more quality for the *same* price) then each *can* get their way partially, in a compromise that is actually a combination of their respective desires: the good itself gets a little better *and* a little more expensive.[99] Presto. The observation I offer again is that the connoisseur/enthusiast magazine speaks persuasively to both parties, producers and consumers, exactly along these lines. By offering product comparisons, background information, and their own editorial praise and scorn, they make the case to producers that their products are wanting, their rivals close, and their customers picky and "value minded." At the same time, and by the same means, they let readers know that if they want better quality (and they *should*, and here's what it looks like...) they might have to pay a little more. Both parties are aware of the message that the other is receiving and are glad of it. Magazines are less like brokers than full time diplomats, working constantly to encourage both parties to change their ways. Why do their publishers bother? In order to make money for themselves, of course, through sales, subscriptions, and advertising revenues, but also in order to increase their influence on a given category of products' development and prevalence in the culture (the latter represented indirectly by the share of Gross National Income spent on them).

If this all sounds evolutionary, it is.

2. The reader may recall from Chapter Six that there are four types of goods that defeated the law of diminishing marginal utility (LDMU), namely: "climactic satisfactions," "gifts that keep giving," "goals that keep receding," and "salted peanuts" (addictive goods). Attempts by producers and marketers to construe any and every inerasable attribute of the good they offer as having one or more of these LDMU-defeating characteristics are also common, not only in magazines but in all media, especially television. In the interests of brevity, I shall not go over the strategies and arguments again here. But the point is that they all "raise consciousness," increase Ω—create value—in the minds of consumers, often without doing much, materially, to the good itself. All maintain or increase the price of the good, P, by increasing N_B and μ in Equation 8.3, and also V_b in Equation 8.4.[100]

Allied to this strategy is to construe the good as one that cannot be resold, i.e. cannot be used as currency in any way. This can be done legally (through copyright law or through the buyer agreeing not to sell it again) or by design, as when a good is either so specific to the customer that no one else could or would want it, or when it is consumed wholly, or when it obsolesces rapidly.

3. Another factor that drives and conserves product quality is what one might call "historical snobbism." I say "drives" and not only "conserves" because up-to-date manufacturing methods and sophisticated technologies are often used to re-create old-and-complicated kinds of goods. Here are some examples: mechanical wristwatches, *noir* movies, elaborate operas, hand-made cars and motorcycles, titanium eye-glass frames, good wines, vacuum-tube music amplifiers, vinyl-record turntables, collectible knives and guns. And then there are all the new parts we make for old houses, old sailing boats, antique furniture, and so forth. Many of these older technologies reached their apex of sophistication at exactly the time they were beginning to be supplanted by more modern technologies: sailing ships as steamships and powerboats took over, record turntables (and tone-arms and pick-ups...) as laser CDs took over, carburetors as fuel injection took over, automatic watches as quartz watches took over, film-based cameras as digital ones cameras took over, and so forth.

Historical snobbism is not the same as elitism, although they often go together and both are associated with wealth. (Old Money would rather drive dented 1967 Mercedes coupes than new Lexus SC400s). But the truth is that middle-income individuals develop enthusiasms for particular antique technologies and styles too: for old or old-seeming cameras, radios, plates, dolls, cars, globes, telescopes, lawn furniture, etc., even old computers. Many of the activities of an earlier era too—from country-dancing to horse-riding, hiking, knitting, decoupage, dog-breeding and showing, hunting, fishing, sailing, and model railroading—are also kept alive, if only as hobbies. These are not-inexpensive enthusiasms and each supports a small industry of amateurs, connoisseurs, and devoted manufacturers.

Now, I do not mean to pass judgment here on "retro" fashions, nor on all the forms of nostalgic goods and activities that seem to be gaining greater respectability with every passing year. *Of interest is this: that part of the sentiment that drives interest in such goods is also one that drives interest in product-complexity in general*—not just any complexity, but the *evident* and *expressive* complexity that typifies the more mechanical and hand-worked "high" technologies of the past. To the extent that this visible complexity and learnable sophistication increases the Ω of people's lives, we should be pleased. And that these goods should cost more in time and money is not a bad thing.

This belief has consequences. For example, contrary what most architects believe—and much more about which in the Coda—nobody should be under any moral duress to *be modern* if that means preferring minimalist abstraction or metal-and-glass construction (with a touch of pseudo-raw, pseudo-industrial *chic*) that passes for modernism in this day. This "modernism," too often, is a thin cover for cheapness.

4. Another way in which goods evolve in complexity while sailing into the wind of downward price-pressure from consumers is through the introduction of new manufacturing and distribution technologies that *lower the cost* (K_s in Equation 8.3) *of producing a given level of quality or performance faster than people expect it to.* Once a product establishes itself as *worth* a certain amount of money (if only to the better-heeled members of society), price reductions to gain market share and increase market size can proceed with impunity as long as the new, underlying technologies are lowering costs at the same rate or faster. This certainly has been the case with computers, cell phones, copiers, and the like.[101]

With new technologies rapidly reducing production costs, there is also room for a given good's quality and complexity to *increase* without raising prices. Producers can compete on quality as well as price because they are able to invest some of the profit released by market prices falling more slowly than manufacturing costs into research and development. With personal computers we see both effects in play: greater capability every year at a given price-point (say $2000) as well as lowered minimum prices for a useful machine (at the time of writing, around $500 for a desktop computer with the same capabilities as a machine that two years prior would have cost $2000). Gresham's Law roundly defeated, here the good drives out the bad (although note: the resale value of old computers is negligible; they are far from money).

Such remarkable economies in the realm of computers and telecommunications are the envy of every other sector of the economy.[102] But, ironically, taking these industries as a role model for *all* industries, as contemporary business books urge executives to do, has not had, and will not have, evenly good consequences. Producers of goods whose underlying production technologies lie closer to their respective ceilings of efficiency, find themselves embarrassed into imitating the language, style, and techniques of computers if not actually giving over large parts of their function to computers directly—there, somehow, to perform their magic. I am thinking particularly of elementary school education and the unwarranted belief that teachers can be replaced, or even significantly helped, by computers and educational software. Similarly misguided is the enthusiasm for giving higher education over to computers and the Internet.[103] More troubling yet is when every producer of every product falls under advisement that, *whatever his or her prices are, they are too high: "I mean: look at computers..."* Consumers begin to expect "technology" to work the same miracles everywhere at the same rate, which only serves to increase the intensity of downward price pressure on all goods. No wonder that goods that cannot respond must strip themselves of niceties, starve themselves of content, and eventually beg us to spend our money on them because we *ought* to.

5. Finally we should note that there are goods that are becoming more complex and expensive in spite of all attempts to contain costs through technological innovation on the one hand, and to slow price increases through hollowing out and corner-cutting of the product on the other. These are goods whose price and quality together follow an upward trend because of the increasing—or at least non-diminishing—*value* that consumers place upon them.[104]

Notable among these are goods that provide physical health and longevity. In spite of the best efforts of "managed care" systems to rationalize, and even directly ration, medical services, in spite of continuous progress in underlying medical technologies, from diagnostic machinery to pharmaceuticals, and in spite of the nearly stationary rate of remuneration of doctors and other health care providers, the costs and prices of medical care continue to rise because our standards of *enough* health, enough lifespan, and enough body-functionality—from physical mobility through sexual potency to physical beauty—are rising even more quickly. Such survival-level needs are not only inherently impossible to satisfy completely (actually, *none* of our needs can be satisfied *completely*), but they also stand in a fundamentally extortionary relationship to all our other needs. This is why in American medicine fewer technological innovations are directed at reducing the cost of a given level of medical care for all, than are directed at increasing the sophistication and effectiveness of medical treatment for as many as can afford it. Complain as one might, the culture-wide refusal to accept aging, disability, or disease as natural or inevitable will guarantee that an ever larger portion of the GDP will flow into medicine for some time to come. It is what we individually want, and it is not entirely a bad thing. Medical research and practice increases the complexity-and-organization of human affairs dealing with health and longevity. It does so, however, at the cost of the Ω-growth in other areas of human life. It is towards one of these "other areas," architecture and the environment, that we will turn in the Coda.

In summary of this section: once we have decided that Gresham's Law and the logic of efficacy are having a deleterious long-term effect, there are five ways of responding and yet remaining inside of free-market dynamics: (1) promote connoisseurship in the category of good or "walk of life" involved, (2) avoid LDMU and minimize the good's resellability, (3) promote historical snobbism, (4) decrease production costs more rapidly than consumers expect, and (5) lower the stratum of need addressed. Best is to apply all remedies simultaneously. All are important not only in the attempt to *preserve* complex goods and fragile forms of life threatened by market forces (or more specifically, by too-intense price-competition), but also to increase the complexity-and-organization of all goods, all forms of life.[105] The idea is to convert economic *growth*, as measured by change in the GDP, into economic *progress*, as measured by the increase in health, wealth, equality, justice, well-founded freedom, and beauty in the world. It is to the subject of this "conversion" that we turn in Chapter Ten, there to offer what insight we can with our now-almost-complete general theory of value.

Notes to Chapter Nine: ***The Meanings of Money***

[1] Here is an ambiguity, solved conventionally but not technically: If the buyer of goods buys not for her own consumption pleasure but for others' (family, friends,co-workers, etc.), and thus receives tokens of appreciation and other services in return, *is she a reseller*? Convention says no. Why? Chiefly because money does not again pass hands, and also because there is "officially" no competition among the recipients. However, allow that non-money tokens and favors can constitute payment, and the convention falls away. Our buyer is indeed a reseller.

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[2] For example, without clear and enforceable property rights, markets using money (or money-denominated credit) cannot flourish beyond a small circle of traders. It cannot become capital. See the 9th characteristic of ideal markets in Chapter Eight, p. 5. See Chapter Four, pp. 16, 17, for a list of tokens types and kinds.

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[3] Cf. Chapter Six, pp. 28–33, where we discuss imbalanced need-states. The idea that my freedom ("liberty") extends only to point that it infringes upon yours is J. S. Mill's, of course. I take all this up again in Chapter Ten.

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[4] John Hicks, *A Market Theory of Money* (Oxford: Clarendon Press, 1989), p. 2.

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[5] C. A. E. Goodhart, *Money, Information, and Uncertainty* (Cambridge, Mass.: MIT Press, 1989 [1975]).

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[6] Among securities, bonds are an exception to this statement. They are owned chiefly for the return or "coupon" they generate for holding them to maturity. Bonds are thought of mainly as income generating investment vehicles. Resale trade in "immature" bonds is trade in bonds of different quality (i.e. risk) and coupon value. Stocks, on the other hand, are owned mainly to hold and resell. Dividend yields to stock holders average around 2% per annum of their value, whereas returns to resale average around 7 to 10 % per annum. Many highly desirable stocks pay no dividends at all.

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[7] It is worth noting how infrequently consumer-buyers experience the conditions of production of the goods they buy: I mean the factories, the hatcheries and abattoirs, the kitchens, the workshops, even the deadeningly bland office backrooms ("cube farms") and warehouses from which most computer-related services originate. No, the consumers' first contact with most of the goods made by others is the retail environment. And this is the only environment along the production chain in which any care is exercised to please the human eye, ear, and soul.

In *The Time Bind: When Work Becomes Home and Home Becomes Work* (New York: Avon Books, 1999 [1989]), sociologist Arlie Russell Hochschild argues that, as the 20th Century passed into the 21st, more Americans spent more time at work as a matter of *choice*. That is, they would rather be at work—with its coffee, companionship, clear task definitions, and reward structures—than be at home with their families, dealing with all the complex emotions and duties that prevail there.

Now, Hochschild's study was restricted to a single Fortune 500 company. If her conclusions prove to be more broadly true, they could turn out be less a commendation of the social and physical conditions of the average workplace than a condemnation of the average social and physical condition of the home. Her conclusions could also be pointing to the decreasing returns to labor for most workers (i.e., the fact that most families now *must* contain two or more full-time workers in order to meet middle-class bills), and of people making the best of the resulting "time bind." Of course, the less time spent with family and at home, the more fractious and dysfunctional home life becomes, and the more of a relief and escape becomes work—and even commuting alone to and from work. And thus does the trend perpetuate itself, while wealthy capitalists laugh all the way to the proverbial bank.

None of this is to knock the pleasures of work, which are essential to human happiness. On the contrary, it is to plead for more attention to that pleasure, to that site of value production, in an absolute sense—rather than only by *contrast* to a dismal home environment and home life.

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[8] Cf. our discussion of empathy and the "climate of exchange" in Chapter Seven, pp. 14–16, and of bargaining "psychology" in Chapter Eight, p. 25.

[9] Many market makers for consumer goods on the Internet carry no inventory at all. They are pure brokers, sending received orders on the producers for direct delivery to customers. What they own and operate is the "showroom" and the capacity to handle transactions, which are two of the many functions that the traditional, full service retailer offers.

The consumer in this new marketplace is caught between the Scylla of the Internet and the Charybdis of the malls and box stores. When our shopper goes to buy online, he confronts a bewildering array of ill-focussed information—too many technical specifications (poorly written) for some products but little or not information for others; misleading photography; concealed delivery and handling charges confronted on the last check-out screen; substantial delays in getting real customer service and even in receiving the goods at all. Is this worse than the mall? Only sometimes. In the physical retail environment the average shopper must put up with fugitive store clerks working for minimum wage who know no more about the goods they are selling than can be read off the box by the consumer. All this is the result of "disintermediation" and the rule of (money-)price competition.

[10] Cf. my remarks about the "experience economy" in the Coda.

[11] I am not suggesting that this process is very painstaking or scientific. As we discussed in Chapter Seven, and as utilitarians since Mill have noted, value calculations are typically rough, fast, and strongly guided by convention. This works well enough in the vast majority of situations, very few of which are unprecedented. A measure of trust, hope, or forgiveness takes up the rest of the slack, covers mistakes, allows recovery.

[12] Economists typically classify houses as both "consumption goods" and "investment goods."

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[13] For an extensive technical discussion of this point, see Richard Dusansky and Paul W. Wilson, "The Demand for Housing: Theoretical Considerations," *Journal of Economic Theory* 61 (1993): 120–138. Interestingly, the Consumer Price Index (CPI) between 1969 and 1982 used the increasing average real estate value of owned homes to gauge the increasing cost of housing. After 1982, however, the CPI used an estimate of the *rent equivalent value* of the house, since it seemed unreasonable to count paper appreciation of its market value as a "cost of living,"especially since the average home-owner only sold every seven years or so. Because the cost of housing contributes nearly a third to the CPI, this change in accounting method lowered the published (and therefore politically effective) CPI by about 0.75% after 1982. Some economists believe that the inflation of the 1970s was due in part to this consistent overestimation of the cost of living for the average person, since wage demands were universally based upon it and the wage increases won this way were simply passed along in higher prices. See Dean Baker, "The Impact of Mis-measured Inflation On Wage Growth," working paper, *Economic Policy Institute*, Washington D.C., April 1997.

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[14] Trade in hybrid goods makes up a good part of the economy, even exempting capital goods as such. Look at the classified ads of your local newspaper. Economists call trade such as this the secondary market. No statistics, though, are published for it. And this is the case not just in mature free-market systems like the U.S.A.'s, but in struggling, would-be, free-market economies like Russia's, where—at the time of this writing at least—cash is in desperately short supply, banks are untrustworthy, and barter is as common between people as between firms. Here, the value of every durable good is half what-it-is and half what you can get for it.

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[15] In *Capital*, Marx summarizes the problem like this: Let M be (a quantity of) money and C be a (quantity of a) commodity. (His nomenclature) The consumer-buyer exchanges M for C. Write this process as M-C. The producer-seller exchanges C for M. Write this as C-M. The producer forms the triplet C-M-C, where the second C helps him produce more of the first—and this is to the good. But the reseller forms the chain M-C-M; his aim is to

make more money via the commodity—and this is bad. Replace *C* with *L* for labor, and much the same story can be told. We looked at exchange quite closely in Chapter Seven and at market exchange in Chapter Eight. From these it ought to be evident that Marx's "*M-C-M-C*..." formulation oversimplifies both the logic and the value of economic exchange considerably.

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[16] There is as yet "-ism" for what I am after. My interest in this book is not to suggest any new political-economic system, but rather to provoke and promote any and all up-to-date, multidisciplinary inquiries into the foundations of economic life by offering one myself.

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[17] He used it in a "Royall Proclamation" decrying the debasement of silver coinage in 1560, as well as in an earlier memorandum.

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[18] Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954), p. 343. Gresham was not the first to note the phenomenon. According to economic historian Glynn Davies:

> In 407 BC, Sparta captured the Athenian silver mines at Laurion and released around 20,000 slaves. As a result Athens was faced with a grave shortage of coins and in 406 and 405 BC issued bronze coins with a thin plating of silver. The result was that the shortage became even worse. Good coins tended to disappear from circulation since people naturally kept them and used the new coins instead in order to get rid of them. This gave rise to what is probably the world's first statement of Gresham's law, that bad money drives out good, in Aristophanes' play, *The Frogs*, produced in 405 B.C. Aristophanes wrote "the ancient coins are excellent...yet we make no use of them and prefer those bad copper pieces quite recently issued and so wretchedly struck." These base coins were demonetized in 393 B.C.
>
> Roy Davies' online precis [*http://www.ex.ac.uk/~RDavies/arian/llyfr.html*]
> of his father Glynn Davies' *A History of Money from Ancient Times to the Present Day* (Cardiff, Wales: University of Wales Press, 1996).

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[19] Arthur J. Rolnick, Francois R. Velde, and Warren E. Weber, "The Debasement Puzzle: An Essay in Medieval Money Policy," Working Paper 536, *Federal Reserve Bank of Minneapolis* (October 1994).

John Kenneth Galbraith is one economist who is whole-hearted in his belief in the continuing relevance of Gresham's Law, as well as its historical prevalence. See his *Money* (New York: Houghton Mifflin, 1995 [1975]).

For a more skeptical view, see Arthur J. Rolnick and Warren E. Weber, "Gresham's Law or Gresham's Fallacy," *Journal of Political Economy* 94 (Feb. 1986): 186–199. In this paper, Rolnick and Weber point out that, in historical fact, the exchange rate between two different currencies was rarely fixed for long, and that currencies co-circulated happily, with merchants charging two prices, until the *transaction costs* of using one currency became higher than the other. Bad money drives out good money, they conclude, "only when the [transaction] costs of using the good money at a premium are significant" (p. 198). They also note that smaller denominations of the good money are withdrawn from circulation first.

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[20] The principle of arbitrage says that no two marketplaces in which the same good is available at the same time will sustain a difference in price (of that good) no greater than (a) the least cost of moving it from one marketplace to the other, or (b) the difference in the cost of supplying those markets, whichever is the smaller. This is because arbitrageurs—people who buy the good at a low price in one marketplace and, as quickly as possible, re-sell it at higher price in the other—will exploit all price differences above that minimum, turning them into profits.

What applies to two marketplaces also applies to parts of a single marketplace. Indeed, that there *is* a market-wide price at all for so many goods is testament to the power of the threat of arbitrage as well as to consumer wariness and bargain-seeking. There are legalistic ways of removing the threat of arbitrage at the outset—a simple one being contracts between a good's primary producer and its sellers that prevent the latter from selling the good to anyone but a final consumer, or, simpler yet, state control over licenses to sell.

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[21] When the buying power of a coin as a quantity of metal of a certain purity and weight is less than the buying power of the coin as currency—i.e., if you can buy less with an ounce of silver powder than with the same ounce of silver minted into the form of a state-legitimated coin—then the difference between these two buying-powers is called *seignorage.* Seignorage is as direct a measure as one could wish for of the *authority* of the state or crown, which is the ability *to make things so* by declaration, or *fiat.* Hence the name "fiat money" sometimes given to money-forms such as intrinsically cheap coins, bank notes, and even government bonds, so as to distinguish them from "commodity monies" such as sheep, or cows, salt, or precious stones.

During the 16th and 17th centuries, the authority to mint officially sanctioned coinage passed from the exclusive domain of kings and regional fiefs into more or less commercial, for-profit production. In the Dutch Republic of the early 17th century, writes Galbraith, "no fewer than fourteen mints were...busy turning out money.... A manual for money changers issued by the Dutch parliament in 1606 listed 341 silver and 505 gold coins." (*Money*, p. 13.)

It was in response to this bewildering variety of coins—whose metallic purity was a chore to ascertain, which difficulty in turn encouraged persistent debasement at the mints, which in turn resulted in virulent inflation—that the idea of a *public bank* was born in the form of The Bank of Amsterdam. With the blessings of the City of Amsterdam (and the Dutch East India Company), the Bank would take, hold in safekeeping, and value coins of whatever origin by their precious-metal content only; it would *keep books* as to such holdings of coins and issue in their stead standard promissory notes of redemption to their rightful owners. It was but a few years later that the promissory notes themselves were used for payments at large, and a very few years later that loans would be made by the Bank (a) to people other than the holders of the money they held in trust and (b) in amounts greater than the total amount of money they held...in short, the beginnings of modern banking practice.

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[22] See Glynn Davies, *A History of Money*, and J. K. Galbraith, *Money.* It soon became common to issue more notes of redemption than the bank had corresponding holdings—a practice common to this day.

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[23] In this scenario, the good money is used to pay for the production of (a larger face-value quantity of) bad money, which is equivalent to saying, in the conventional scenario, that the mint takes a part of the value of seignorage to cover its production costs.

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[24] There are several ways it can do this: one is through making itself the monopoly supplier of money on pains of the legal use of force to prevent others from starting their own mints; another is by insisting, also on pains of the legal use of force, on collecting taxes only in the specific money-form *it* issues.

Also, when governments are unstable and inflation is rampant, people would rather not have the value of their money depend too much on seignorage, i.e. on their government's warrant. They prefer instead to store their wealth in gold or precious stones, which are easily transported and tend to have value world-wide.

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[25] Gresham's Law only applies if merchants charge the same price for goods no matter which coin they receive. If merchants themselves take into account the relative metallic value of the coins they are offered, charging more when paid in silver coins and less when paid in gold coins, then silver coinage (and later brass, etc.) will *not* drive out the gold coin at all. This is exactly what many merchants did in Renaissance Europe, which is why gold and silver coins both circulated happily for decades, until transaction costs finally favored using one currency: the cheaper one to make and use. See Arthur J. Rolnick and Warren E. Weber, "Gresham's Law or Gresham's Fallacy," op. cit.

In Russia at the time of writing there were two prices for almost everything: a ruble price and a dollar price. Dollars are also hoarded because of the declining relative value of the ruble.

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[26] I say "more or less" because large, free-agent players in global capital markets can also have a significant impact on a government's ability to control the effective money supply for investment in its own country.

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[27] Recent enquiries along this line have used computer models of trading among artificially intelligent agents. These models have shown that, when exchanging a selection of commodities of different values to each trader over a period of time, the most efficient trading systems more or less "invent" money by pressing the lowest-ranked and easiest-to-store commodity into service as a medium of exchange. See Ramon Marimon et. al., "Money as a medium of exchange in an economy with artificially intelligent agents," *Journal of Economic Dynamics & Control* 14, no. 2 (May 1990): 329-374.

It is often claimed that money is a commodity that cannot legally be produced except by the state. But this is not *quite* true: private currencies were issued by banks until the turn of the 20th Century, and private currencies are still in use: e.g. store coupons, green stamps, chips at casinos, hour-tokens at baby-sitting co-ops, and so forth. They just have limited acceptance.

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[28] Hastening the transition is the fact that substantial transaction charges can, for a while at least, be demanded from all money-users for the convenience of *not* using physical currency (think of today's $1.50 per ATM-withdrawal charges), although the true cost per transaction to the bank is minuscule. These charges become one more source of profit to the financial institutions that provide the cashless society's computer-run accounting systems. "E-cash," electronic cash, digital money...all *sound* very new, but they are just one more step in a long chain of Gresham-guided evolution, and will likely be superseded.

Where will the trend towards dematerializing money end? I think: with technologies that allow cheap, non-intrusive, and perfect (or at least economically insurable) identification of persons and goods simultaneously. No more cashiers—you just walk out of the store with the goods and a sensor at the door tells the system who you are and what you bought. This happens "virtually" at several online sites already (e.g. Amazon.com's *One-Click* service).

And beyond that? This: tracked by the global positioning system (GPS), wherever you are and wherever you go, those who provide anything of value to you—goods, services, tokens, your physical surroundings—are paid instantaneously and wirelessly through the "ether." Similarly, you are continuously being paid for what you are providing, moment by moment, and have provided in the past and that people are still using....all in vast, electronic rent and royalty system operating silently and beneath notice. Indeed, no one is aware of the process...until a central computer sends notifies all providers around you that you out of credit, no longer able to pay them. Suddenly you become *persona non grata*. Such a payment system would implement the Hindu system of *karma*. In certain ways, however, it resembles how the psychological economy works already.

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[29] For a more detailed account using the formalisms applied here, see Appendix 6. The fullest description of an object *at all scales* would be at least as complex and lengthy as the object itself. Such a "description" might necessarily *be/become* the object itself—its length, as a description, beyond any human's capacity, not to say patience, to write out completely. Indeed, it might require describing the state of the entire universe (at all scales), because no object can be disconnected from it: gravitational and electromagnetic forces impinge from every direction, not to mention subatomic particles and non-local quantum influences...

What is denoted by "J" by contrast, is quite manageable, and human. It is the finite set of attributes that an especially patient, sensitive, and knowledgeable human observer could be expected to notice.

In the world of computational objects (visual patterns, functional units, games, applications...), the size of J is considered the shortest algorithm that would generate "new" objects that no one could distinguish from the original, or each other. How do we know it's the shortest algorithm? Because there is no known way to compress it any further. (Cf. Note 13 of Chapter One).

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[30] Put another way: if we assume that all N_J attributes or features of the good contribute to the *cost* of its production—i.e., are contained in K_s in Equation 8.3—then $N_J - N_K$ represents all the attributes of the good on which the producer-seller makes no profit. Indeed, on these attributes (features, characteristics, qualities, properties, of the good...call them what you will) he takes a loss. If those features are costless to produce, or are costly to *remove*, then producer lets well enough alone. In some cases, however, features not valued in a given marketplace can be stripped off and sold in another, as when rinds, shells, and husks become fertilizer or feed, when sawdust is sold to make particle-board, when packaging is recycled, and so forth. Such waste recovery and re-marketing strategies are an important part of "green" business.

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[31] This returns us to our discussion of "effective demand" in Chapter Eight, Note 60. Here we can go a little more deeply into the matter.

One way that economists can argue—against me, here—that income distribution does *not* account for the canonical price-demand relationship is to say that the supply and demand mechanism always already puts greater quantities of inexpensive goods on the market than it does expensive goods, this in a way that closely matches the numbers of people operating at different income levels—i.e. that closely matches the *quality* of good *effectively* demanded at each income level. Any gains in total profit that a single producer might hope to capture by lowering his prices and quality levels would thus be neutralized. Indeed, lowering his prices and quality levels, he might find himself worse off: competing against even more producers than he currently does, all of them scrambling to capture the heart of the masses with superfine profit margins.

I reply: Although it allows for some jockeying amongst individual suppliers for market *share*, this picture is still rather static. For if the market for the goods typically bought by every income bracket were equally well served—Mercedes Benz for the rich, Ford for the middle class—there would be hardly any room for a producer-seller to maneuver, especially if the market were mature. To break into new markets and tap into vast reservoirs of latent demand, only *significant income-bracket shifts in the potential market for a given good* will do. Most especially, if a good previously affordable and marketed only to the rich becomes affordable and marketed to the not-so-rich, then something big has happened. Why? Simply because the not-so-rich far outnumber the rich. Latent demand rapidly becomes effective demand based precisely on skewed income distribution. The supplier of the first newly-affordable prestige good in a category can enjoy a monopoly, at least until competition catches up or the prestige he capitalizes upon slowly evaporates as the exclusivity of the good vanishes.

The creation of effective demand has little to do with the aggregate effects of minute price-based trade-offs between beer and bread, or rents and mortgages, as economics textbooks are wont somewhat condescendingly to explain. It has more to do with the process of continually introducing recently unaffordable goods to larger, poorer segments of the population (or, what is equivalent, with increasing the real incomes of the people at the lower end of the spectrum—Keynes's point). Paul Fussel in *Class: A Guide Through the American Class System* (New York: Simon and Schuster, 1986) calls the process "prole drift." And this is why economists' always-downward-sloping-to-the-right market demand curve may, for the most part, trace out not mass satiation with a good (i.e. its diminishing marginal utility with consumption) but the distribution of income itself, all as I averred in the previous chapter.

Some remarks on income distribution itself: There must probably be *some* inequality in income distribution in order to maintain motivation, to mete out rewards, encourage risk-taking, stratify goods, and so on. But there is no natural law that sets an optimal degree of income (or wealth) inequality, and there is no natural reason why the material and temporal quality of life for the well-to-do and the not-so-well-to-do need be as different as we find them in the U.S.A., South Africa, Brazil, or any number of other countries in the world. Nor is the combination of "private splendor and public squalor" —to use John Kenneth Galbraith's memorable phrase describing America—a necessary condition for high average prosperity. People are almost infinitely capable of detecting small differences amongst each other in beauty, style, bearing, skill, language-use, privilege, and so on. Because of this, a just society *could* have an *almost* horizontal income density distribution and *almost* identical standards of living for its citizens and still have ample venues for competition and discrimination, ample reason for individuals to want to improve themselves—to be the *best*, have the *most*, and so forth—and even to have traditional class markers, virtue-sets, snobbery, and the rest. It is a matter of making a big deal of small differences—which, happily, humans are eminently capable of doing. Let us by all means, then, wrangle over whose cherry trees blossomed sooner this year, over whose cummerbund is tighter or even whose skin is smoother, but let us *not* wrangle over whether the elderly poor should get full medical insurance, whether all children should get the same and best educations we can give them, or whether our inner cities should be rebuilt.

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[32] This procedure is at the heart of the discipline that calls itself "value engineering." Of course, if it were more *expensive* to "value-engineer" a product than to let it continue to be produced with all of its superfluous qualities intact, then Strategy 2 would be of only academic interest. In the Coda we will see what effect Gresham's Law had on architectural design for the greater part of the 20th century.

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[33] Peter Applebome, "Class Notes: Why employers aren't interested in the high school grades of prospective workers," *The New York Times*, May 17, 1995, B8.

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[34] This has been happening for decades in the U.S. to such professions as teaching and nursing as well as manufacturing, where the process often goes by the name "de-skilling"—yet another name for the centuries-old process of capitalizing the efficiencies inherent in the division of labor, and on replacing manual/mental work by machine/computer "work" wherever possible. The economic disadvantages of de-skilling when de-skilling is taken too far have also been widely noted since Adam Smith: first, that it can cause excess national unemployment; second, that it can diminish the quality of life of workers *at* work through narrowness and routinization of tasks; and third, that it can cost the company considerably if workforce flexibility is required in order to remain competitive in changing times or a "noisy" business environment. None of these problems has much slowed the overall trend to de-skilling in post-industrial economies however, so great are the productivity gains to be made.

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[35] One could go much further with this line of observation. The technology of movies exploits the biological fact that the human retina has a refractory period of 1/30th of a second. Showing movies at a frame rate faster than 30 fps is uneconomical: we could not tell the difference. At 75 cycles per second refresh rate, computer CRTs display an effectively steady light: and so there is no reason to go any faster. Digital sound recording samples nature's continuous air-pressure waves forty thousand times per second, converting them to streams of discrete bits. This loses a tremendous amount of information in the original sound. Played back, however, digitally recorded sound sounds continuous and startlingly natural. Using this (and even much simpler "analog" recording techniques), it is possible to produce satisfying simulacra of original performances of live music, say, with sound coming from two sources ("stereo"), or five (e.g. THX), instead of indefinitely many (natural). Similarly, digital "film" now replaces silver-halide-based film in most (but not all) photography, the sacrifice in image resolution made up for by the speed, convenience, and creative malleability of the digital medium, not to say its lower dollar-cost per image.

Vast industries have grown up around film, video, and sound-recording technologies. Indeed, their output have become so much a part of modern life—so much a part of what we are "grateful to technology" for—that stopping to remember that they are all based on the inherent economies of being able to fool the senses at a deep neurological level seems pedantic, not to say *undemocratic*. Without them, only the rich could have the frequent, at-will experiences of exotic travel, live music, and safe adventure that videos, CDs, and movies provide in some form.

Critics of my critique of Gresham's Law and of what I have called "the logic of efficacy" will always make this "democratic" argument. The negative value of "cheapening," they would say, lies only in the eye of the *elitist* beholder. Surely the fact that more people can enjoy the mass-produced, digitized simulacrum of a good than the original, natural, or hand-made one is something to be celebrated. The rich, one supposes, can still have the best and *most real* stuff—while the poor and middle classes get to have a lot more than they otherwise would have.

In the main text I answer this critique of my critique more philosophically and thoroughly. Here let it be said that the object of economic growth and development is to increase the plenitude of the lives of *all* people. To the extent that technology, through exploiting limitations in the acuity of our senses, and even "cheapening" the product, helps us increase the plenitude of the lives of more people without decreasing the plenitude of any, I say: *Bravo!* I ask only for watchfulness: *People are too easily shortchanged if they can be made to feel grateful for receiving anything at all.*

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[36] The term "affordances" here was coined by the psychologist J. J. Gibson to describe what we perceive when we perceive anything, namely, what it affords us and what it does not afford us. This can be very basic: a "floor" affords "walking on" but not "fishing in"; a "lake" affords "fishing in" (and boating on, living next to...) but not "walking on." A chair affords "sitting on," "standing on to reach a high shelf," "breaking into firewood," "taming lions," etc. Gibson was at pains to show that even the most basic visual perceptions of form and surface and color were not mere sensations which we had to build up into meaningful things: but rather that we *see what things are good for* immediately, directly, as a matter of biological pre-wiring. Seeing objects and scenes as dispositions of certain colors, surfaces, shapes, transparencies etc. comes much later and with academic and artistic training. It would not be far wrong to identify our feature set "$J_\backslash$" with a good's complete set of affordances, as Gibson defines them. I hesitate to do so because of the double meaning of the word "afford," the one implicating the ability to pay money for something, and the other Gibson's sense of being open-to-use. I have found no long-term value in being able to speak of "affording affordances." See J. J. Gibson, *The Ecological Approach to Visual Perception.* (Hillsdale, N.J.: Lawrence Erlbaum Associates, 1986).

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[37] What does it mean to be "halfway through" a CDROM? Or to remember "where" our hero was betrayed in a hypertext novel?

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[38] If we believe that there is no effective difference between *acting* a brave or knowledgeable or loving person and *being* a brave or knowledgeable or loving person, then *acting* will supplant *being.*

The movie *Trading Places* with Eddie Murphy and Dan Ackroyd provides one charming expression of the popular belief that one need not *really* be educated if one is naturally smart, that all success is a matter of managing appearances (which itself seems a relatively trivial task and certainly one disconnected from underlying realities). But what pours out of Hollywood, in fact, both in the stories told and in the real money made by actors, is constant "proof" of the hegemony of *acting* over actually being/doing/knowing.

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[39] See also my remarks in Chapter Two, p. 29 and 30.

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[40] Recall from the last chapter that competing producers can charge monopolistic prices if (a) they collude to fix prices, which is illegal, or (b) they can manipulate β and γ—the substitutability of their buyers and goods respectively—so as to achieve market power, r^{μ}, greater than 1. (b) is not only perfectly legal; it is desirable. See Chapter Ten on economic development.

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[41] See the last few pages of Chapter Seven on money's "buying power."

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[42] Necessity might be the mother of invention, but laziness is surely the father. Certainly, laziness spurs many inventions that increase labor efficiency, that are about reducing time and trouble. Of course, no one who is truly lazy—and no society that was universally lazy—would bestir him-, her-, or itself to produce labor-saving devices and procedures!

This is a conundrum, the solution to which—as Joseph Schumpeter celebrated—lies with the peculiar genius of a free-enterprise, capitalistic economy, and that is: to arrange matters so that material rewards accrue to the few and industrious for *catering* to the many and lazy. For then, in a theoretically self-generative and upward-spiralling process, people from the many-and-lazy group (but not *too* many) can emerge to join the few-and-industrious group catering to their former mates, and those from the older few-and-industrious group, now rather well off, can retire to the many-and-lazy group, but with more money to spend and with higher expectations, spurring on another generation of the industrious to serve them...

Of course, most capitalists who introduce new time-and-trouble-saving machinery and procedures to the *production* process do so not at all to help their employees enjoy greater leisure, but rather to hire less (and pay less for) labor. This does not mean that the process described in the previous paragraph is not at work at the larger scale.

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[43] I am *not* arguing that loss-of-freedom is *all* that one's income from work reflects. The amount of money one receives for working has a great deal to do with (a) the social value of the product of one's work, and (b), related but not the same thing, how closely one has been able to position oneself to large flows of money, thereby to have some effect on its disposition.

It's also worth noting that five hundred dollars in *wages* do not yield the worker as much freedom as five hundred dollars in the form of a one-time *bonus*: wages fairly *must* be spent on such necessities as housing, food, clothes etc., whereas bonuses need not be. The wage-plus-regular-bonus formula for paying labor has the advantage, to employers, of allowing them to reduce their total wage bill when they must by cutting out the bonuses rather than the wages themselves. Employees find it easier to accept a lower *bonus* than a lower *wage* since the latter is taken to signal status at the deeper level of legitimacy, and a bonus only at the level of approval. Also, should they complain about rising expenses, employees can be told that they were not *supposed* to rely on their bonus to make necessary payments, no matter how regular the bonuses had become.

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[44] There are a few other, equally-simplistic buying rules, e.g., "buy the biggest X," or "buy the first X you see."

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[45] The same might be said of the tremendous simplification involved when businesses make profit-growth the only criterion of self-judgement or, for that matter, when legislators and the Federal Reserve use only GDP growth as the guide and measure of economic policy. With their eyes on monetary bottom lines, can it be any wonder that the finer points of the quality of life—things that we *could* measure if we had a mind to but that would complicate the life of accountants—quietly fade out of attention?

In his much-overlooked works on political economy, John Ruskin placed the blame for qualitative cheapening on profit-seeking between-producer competition alone: "The normal result of competition, "he wrote, "is not to induce manufacturers to make, and merchants to sell...better commodities at the same price at which worse commodities were sold before, but to make and sell at lower prices worse commodities pretending to be the same." (John Hobson, *John Ruskin, Social Reformer* (London, James Nisbet and Co., 1898), p. 133). "There is hardly a thing in the world," Ruskin continues, "that someone cannot make a little worse and sell a little cheaper, and the people who consider price alone are that person's lawful prey."

Throughout the 1980s and 1990s in small towns across America, people flocked to new Wal-Marts on the highway in spite of the complex damage done to their communities, old downtowns, and landscapes. Why? Because Wal-Mart presented as simple a proposition—and as undemanding a face—as it possible for a retailer to present: *one-stop* shopping, *guaranteed* lowest prices with, moreover, no unwanted *commitment* (your money back if you don't like what you got). Furthermore, there would be no sticky social transactions with the likes of old pharmacists or hardware-store owners, just efficient and smiling youths (or well-dentured seniors) to help you when you can not help yourself to the cornucopia. And oh yes: long hours, easy access, and plenty of parking.

Availing themselves, almost robotically, of this sort of simplicity, ease, and money-savings, Americans demonstrated how they choose freedom at all costs when those costs are rendered *invisible*—as when they are diffused into tiny, long-term quality-of-life degradations in their towns, as when they are borne by the community as a whole rather than themselves, as when they are paid later rather than sooner and/or are exacted in high-stratum but non-monetary tokens rather than monetary ones…arrangements, all, that aggressive sellers, financiers, and politicians are more than happy to make on their behalf.

As their economies begin to resemble the American economy, Europeans are increasingly following the same path. Their old city centers will soon be for tourists only.

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[46] Recall that *commodities*, by definition, are goods that are identical in quality regardless of producer, brand, or seller. Sides of beef, gasoline, electricity, flour, sugar, salt, water, aspirin....all are regarded as commodities,

all are regulated by government to meet quality standards. Rationally, price is the *only* criterion for consumer choice between them. And yet it is interesting to see how suppliers of commodities nonetheless attempt to distinguish themselves from each other by touting their superior service, cleanliness, purity, ecological friendliness in manufacture, and so forth.

On the poverty of prices per se as relevant information to buyers, see Chapter Eight, pp. 14–15.

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[47] On a more technical and philosophical note: It would be perfectly cogent to argue that any discipline, dwelling, or commitment that was *involuntary* could not be what someone who values freedom could possibly want, even if it could be shown, beyond a reasonable doubt, that having less freedom would further his or her welfare. What we Americans want, paradoxically, is to be able to give up some or even all of our freedom *as and when we please.* But conversely, we want to be able to *get our freedom back* as and when we please too, that is, when we *no longer* want to pay attention, dwell, be committed, etc.

This cannot work, of course. If the terms "discipline," "dwelling," and "commitment" are to have any meaning or to provide any reward, then the freedom we availed ourselves of when we first (voluntarily) accepted the strictures of a commitment cannot continue to be available during the period of the commitment itself. Voluntary commitments, like contracts freely entered into; are "binding" thereafter: certain of our freedoms have vanished or have been curtailed. One may very freely decide to join the army, but once *in* the army one fairly *must* stay the contracted term. One may freely decide who and when to marry, but once married...

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[48] The computer accounting systems by which the location and movement of electronic money is tracked, and by which the total amount of it in circulation is controlled, are complex. Certainly, they are much harder to visualize than the ones that track and control physical money like banknotes and coinage, especially if one adds automatic interest payments, handling fees, and the like. With electronic money, the absolute uniqueness of a unit of money produced by the state is preserved nonetheless: by the digital codes that track a sum of money's "departure" from one unique bank account and its "arrival" in another. Complete reliability in uniquely identifying the ownership and location of both accounts stands in for complete reliability in identifying the provenance of physical money via serial numbers and anti-counterfeiting design and printing.

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[49] See Chapter Seven, pp. 47–51, for an account of exchangeability's role as a component of money's buying power.

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[50] Anonymous bequests are as often the result of shame as of modesty. That money has no memory was not always the case for all forms of money. Today's paper currency "is the stepchild of the negotiable *sight note*, or order to pay, payable by the debtor on sight to whomever presents it." The ordinary check was payable only to the party designated by the creditor of record. "The early sight note," on the other hand, "traceable to sixteenth-century Brugge and Antwerp, *bore the signature of every person through whose hands the instrument has passed*.... The distinct feature of the subsequent currency, already manifest in the seventeenth century...was the absence of all countersignatures. (Jacques Melitz, "The Polanyi School of Anthropology on Money: An Economist's View," *American Anthropologist* 72. no. 8, (1970): 1024.

For the argument that the invention of the true (unsigned) banknote was essential to American prosperity, see Jason Goodwin, Greenback: The Almight Dollar and the Invention of America (New York: John Macrae/Holt, 2001).

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[51] For a more thorough exposition of this insight, see Chapter Ten, pp. 42–52.

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[52] I say "official" because, as most people know, and as Gary Becker has shown more formally, issues of money within the household are important, just as money is a major factor in choice of marriage partner, career, family size, and so on. It is only "officially"—that is, under pressure to appear to obey the Christian injunction to instate love the proper universal "medium of exchange"—that money is disavowed.

[53] It is quite telling that one of the most prosperous countries in the world during the last quarter of the 20th century, with the flattest income distribution, the lowest family break-up quotient (divorce, illegitimate births, etc.) and a very low crime rate, was Japan: an island country where a symbolic paternal emperor is held genuinely dear, where centuries-old formalities of token exchange at the levels of confidence and approval have been developed to a fine art, where, in general, the economy of tokens other than money remains vital, explicit, and fully elaborated, and where, indeed, personal freedom is *not* held to be the supreme value, something to be had *at all costs*, as it is in America and much of Europe. (One interesting side effect: ordinary Japanese business people have a very hard time entrusting their cash to their banking system, using checks, etc., preferring to carry large sums of money about in pocketbooks and even paper bags. Some of this has to do with their acceptance of tax evasion and bribery as a necessary, and not necessarily evil, part of a businessman's everyday life; the rest, I think, has to do with their attitude towards money, which is always personalized, wrapped, as a *non*-anonymous token operating at a level "lower," in our terms, than freedom.)

Elizabeth Anderson argues eloquently for accepting, indeed reinforcing, the division of valuation into separate and incommensurable realms; the church's values from state's (or public's), aesthetic values from moral ones, market values from civic or personal ones, and so on. She argues that keeping these several realms distinct gives us more freedom, not less, *more* opportunities for making value judgments, not fewer. I would raise the following question. Let there be N such distinct realms of valuation. On Anderson's proposal, which says there is no "super-value" on which objects and acts from distinct realms can or should be compared, we can make N different value judgments. If, however, as I maintain and without wanting to *eliminating* differences between realms, there is a super-value (like plenitude, or Ω) upon which objects and acts from each realm *can* be compared, then we have $N(N - 1)/2$ possible classes of comparisons. If freedom is largely freedom of choice to make autonomous value judgments, then surely a world-view that allows (indeed encourages) "cross-realm" comparison is more pluralistic than one that does not. Anderson's scheme—wherein apples are only compared to apples, and oranges only to oranges—is not always the most pluralistic. A world with only one fruit available would be the poorer for it and judgment the less free. Let there be more and different kinds of fruit! But a world with several fruits *and* a way to judge their nutritional value (or sweetness or perfume) against each other, not just within the group) is surely the more "pluralistic."

For a succinct statement of Anderson's views, see her "Consumer Sovereignty or Citizen Disenfranchisement? The Question of Economic Value in Relation to Public Spaces," in Michael Benedikt, ed., *Center 10: Value* (Austin, University of Texas at Austin Center for American Architecture and Design, 1998). See also Note 7 of Chapter Four.

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[54] Robert B. Reich, *The Future of Success* (New York: Knopf, 2001).

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[55] Consider this passage from the New Testament:

> [T]hose who want to be rich fall into temptation and are trapped by many senseless and harmful desires that plunge people into ruin and destruction. For the love of money is the root of all kinds of evil, and in their eagerness to be rich some have wandered away from the faith and pierced themselves with many pains. (1 Tim. 6:10, NSRV)

A rather gentle admonition, this, and full of qualifications. It is not *being* rich that is a problem, but *wanting* to be rich; only *some* of those who want to be rich will "wander" into temptation, and their punishment is simply the pain *they* must put up with. In Ecclesiastes, a similar thought is more succinctly put: "The lover of money will not be satisfied with money; nor the lover of wealth with gain" (Ecclesiastes 5:10). Warnings against the overly avid pursuit of money and wealth can be found throughout both Old and New Testaments. *Already being* wealthy (say, through inheritance or aristocratic standing) poses no inherent problem; the power to do good *or* evil is merely amplified. Categorical judgments against the wealthy—such as Jesus's "It is easier for a camel to pass through the eye of a needle than for a rich man to enter the Kingdom of Heaven" (Mark 10:25)—are rare. (Some argue that Mark 10:25 is not a "categorical judgement" but an observation.) Nor, in the Bible, are careful distinctions made between monetary wealth and other forms of wealth.

Some want to ascribe money-love and freedom-love both to *capitalism*, as Susan Sontag does in *AIDS and Its Metaphors* (New York: Farrar, Straus, and Giroux, 1989), p. 98:

> The ideology of capitalism makes us all into connoisseurs of liberty—of the indefinite expansion of possibility. Virtually every kind of advocacy claims to offer first of all or also some increment of freedom. Not every freedom, to be sure. In rich countries, freedom has some to be identified more and more with "personal fulfillment"—a freedom enjoyed or practiced alone (or as alone).

It's hard to argue that this is not true of modern capitalism, but it seems hardly less true of pre-capitalist times. For further discussion of the "love of money.." aphorism, see Chapter Ten, p. 20ff.

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[56] There are other tokens whose total supply is institutionally if not governmentally controlled, e.g., deeds to land, fishing, trading, mining, and professional licences, stock certificates, rights to certain frequencies on the electromagnetic spectrum, and so on. This is one reason such tokens are generally quite "liquid" and "worth money."

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[57] A parallel from the world of computing. One need not send complete and fresh data from one computer to the other if the second computer already has the capacity, through its prior programming, to turn the merest *trigger* message into the fuller data-set. Good minimalist abstraction in music, art, or architecture works in a similar way. To someone ignorant of the historical context, there is not much to see (or hear) in a minimalist work. To someone prepared, on the other hand, there is intellectual context in which the minimal stimulus does its work of release and connection to other works, other thoughts. Neither the object nor the context, but the two together—object *and* context, object *and* expectations—yield the reward of more life, fresh complexity-and-organization.

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[58] "All social rules and all relations between individuals are eroded by a cash economy," cried Marx. "Avarice drags Pluto himself out of the bowels of the earth." *Capital*, Volume 1, Chapter 3.

For an interesting study of the ancient and medieval myths surrounding cash money—money as life-blood, money as an agent of power, money as defilement, etc.—see Tad Crawford, *The Secret Life of Money* (New York: G. P. Putnam's Sons, 1994).

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[59] Families who do *not* budget, preferring to make outlays from a pool of undifferentiated monthly income as and when they need to, clearly value the feeling of freedom very highly indeed (even if that freedom is temporary and they find themselves penniless before the end of the month, and thus highly constrained). It is like preferring to live in a large one-room house rather than a house of the same volume divided into many rooms. The former will always feel more spacious. The problem arises when, as the month goes by, the room shrinks...

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[60] When a sum of money is assigned to a certain purpose, its freedom-conferring power is concomitantly curtailed. But *within* the category of expenditure for which the money or coupon is assigned, beyond the point at which spending options have been pinched off as it were, freedom blossoms forth again, and we may buy whatever we wish to buy within the category. This is one reason why such sums are often called *allowances* rather than what they are quite equally, which is "disallowances."

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[61] It may also spill over into legitimacy token inasmuch as weddings are occasions at which attendance itself provides a crucial part of the social sanction of the union.

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[62] Viviana Zelizer, *The Social Meaning of Money* (New York: Basic Books, 1994), p. 203.

To this day in Japan, as Westernized as it has become, tipping is considered insulting by the "tippee," who will usually refuse to take it, backing away and bowing his or her head. Providing polite, complete, and efficient service is a matter of *honor* amongst waiters, cab drivers, and so forth, and money is quite the wrong token of appreciation. Restrained thanks is appropriate, but best is formal, self-and-other-respecting distance: recognition that the interchange was proper and in accord with social station. This is to say: approval tokens too are not as valued as legitimacy tokens, even though the latter, to the Western eye, appear slight indeed.

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[63] "Status" is chiefly a matter of how many legitimacy tokens one is receiving relative to how many one is giving, and of what quality they are. Seemingly paradoxically, the established high-status worker in a group may receive fewer legitimacy tokens from her nominal peers than she gives since her need for legitimacy is all the more satisfied and her neediness low. She will, however, seek and give compliments (approval tokens) and expect other signs of deference to her in the form, say, of unwillingness to *test* her authority.

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[64] Robert H. Frank, *Choosing the Right Pond: Human Behavior and the Quest for Status* (New York: Oxford University Press, 1985). Frank goes into this dynamic quite deeply. But, for all his suggesting that there is a "market for status goods" and other intangible goods, Frank does not go so far as to propose anything like our tokens as a second currency. With Fred Hirsch in *The Social Limits to Growth,* Frank is especially interested in so-called *positional* goods, i.e. goods whose value depends on others' *non*-possession of them in the same quality or quantity. See also our discussion in Chapter Four, Note 45.

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[65] That money acquires meaning through its uses hardly represents fresh wisdom on the topic. As Lewis Lapham elegantly states it:

> Money is like fire, an element as little troubled by moralizing as earth, air, and water. Men can employ it as a tool or they can dance around it as if it were the incarnation of a god. Money votes socialist or monarchist, finds a profit in pornography or translations from the Bible, commissions Rembrandt and underwrites the technology of Auschwitz. It acquires its meaning from the uses to which it is put.
>
> Lewis H. Lapham, *Money and Class in America* (New York: Weidenfeld & Nicolson, 1988), p. 27.

Not to split hairs with Lapham, with whom I essentially agree, but I would claim that money's "original" meaning lies precisely in its pliability, in its openness to almost *any* use before its commitment to some use. Lapham identifies this factor, i.e. money's amoral openness, but he does not quite put his finger on the fact that *because* openness-to-various-uses *is* money's source of "power," it is also money's source of *meaning.* Money, the "stuff," is a token that conveys freedom, and freedom—pure freedom—is always dangerous, always sublime.

Money *means* freedom, as I have been arguing. Money acquires meaning as it is assigned to this or that use in exchange, to be sure, but this is *new* meaning, meaning that lies in the constraint, the organization, *R*, that is quickly clamped upon the dangerous, entropy-increasing volatility of money, which is its default, "original" meaning. Notice that *getting* money has exactly the opposite valence to using/spending it. Liberating to the extent that it is not already "spoken for," *getting* money increases opportunity headily. It diminishes a hundred burdens. Admittedly, we eventually commit, through spending, to this opportunity or that one, or we reduce, through payment, these debts or those. Thus, any money received in cash-like form can derive a structured and structuring meaning in the very prospect of how it will be spent. But on receiving money in cash-like form—on its *mere receipt*—be honest: what flashes before your eyes but multiplicity, de-commitment, moral suspense, flight, liminality. Ah, money: like a dolphin's breath—fleet but unhurried, taken in as the dolphin arcs out of the water and "takes in" the horizon—what to do with it?

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[66] In 1998, the big tobacco companies agreed to give the states $15 billion in settlement of the latter's legal suit against them for incurring the medical expenses of treating smoking-caused disease. Through 1999 it became clear that few states would allocate more than a token amount of these windfall sums to state-supported health care.

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[67] Clearly there is room for debate here. It may be true that one should not give more than trivial amounts of cash to children, drug addicts, or the insane. To give such people as disabled ex-drug-addicts freedom in the form of a monetary stipend and expect them *not* to blow it on cigarettes, alcohol, drugs, guns, and get-rich-quick schemes, etc. is unwise. This, their freedom, is poorly founded. But what about the socially undeveloped or multi-generationally poor—people who, in general, lack security and legitimacy *not* because they have temporarily lost them (like some upper middle-class professional who has lost his job and just needs a "hand up" to get going again), but because the social structures that satisfy those needs were *never* in place for them and cannot now be established without tremendous effort and patience?

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[68] Cf. our distinction between freedom and liberty in Chapter Three. It would be interesting to ask people earning minimum wage (and less) how much money they would insist upon receiving to give up their constitutional right to vote, or right to free speech, and so forth. When politicians who are running for office promise tax cuts, are they not buying votes, quite literally?

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[69] And then there is always TV, which is apparently free, but which we actually pay for by having to endure commercials that, with their persuasive conditioning and channelling of our desire, rob us of our time and our imagination, those other two prerequisites of freedom.

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[70] These last few lines echo the critique of modern market capitalism-cum-consumerism offered by the so-called Frankfurt School of Max Horkheimer, Herbert Marcuse, Walter Benjamin, Theodor Adorno, and Jurgen Habermas, to name the major figures. Members of this Neo-Marxist school of thought argue that the choices offered by consumerism (in shampoo brands, T-shirt designs, tract homes, movies, musical recordings, etc.) are inconsequential and asocial, serving only to obscure the absence of, and substitute poorly for, the truly consequential freedoms that all people ought to have, such as the choice of where and when and for whom to work, where to live, where to study and take vacations, where to send one's children to school, etc.

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[71] I'm not joking. See Leonard Giambra, "Daydreaming: Religious, Economic, and Residency Influences," *Journal of Clinical Psychology*, Vol. 37, 1981.

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[72] As though to illustrate my point, in 1998, 90% of shoppers with household incomes of more than $70,000 a year shopped in discount stores also, this according to a survey by WSL Strategic Retail. This was up from 45% five years ago in 1992. In America, for the rich travel and shop among the poor incognito presents no difficulty or shame. See Jennifer Steinhauer, "The Stores that Cross Class Lines, " *New York Times*, March 15, 1998, Section 3, 1. Also this:

> New York Times Interviewer: *What's the one thing you've bought that has given you the most pleasure?*
>
> Ivanna Trump: It's probably the yacht. I adore the boat for one reason. If you own a house—and I own a lot of homes—you just sit and you go left and right and you take your car and drive somewhere. But on the boat you are in San Tropez, an hour later you are in Monte Carlo. So it gives you tremendous freedom.
>
> *If you lost all of your money tomorrow, would there be something that you really missed? Like nice meals out?*
>
> My favorite is probably chicken-in-the-pot from the local deli.
>
> *Really? How much does that cost?*
>
> Probably around $5.99. Of course, I go to Le Cirque. I had lunch there today.

Do you ever go bargain shopping? Would you buy socks at, say, Price Club?

Price Club? What is Price Club? There is something called Costco. When I open a house in Palm Beach or send a boat from America to Europe, I take my housemen and housekeeper and we go to Costco. I have a ball. ...(T)here is major shopping to do. At Costco you buy big quantities—we buy the salt and the pepper and the herbs.

And toilet paper.

I don't know about that. But we go there and buy big quantities and the kitchen is stocked and the chef goes with us. I actually enjoy it a lot. It's fun!

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[73] The reader may be starting to wonder why I am going to such lengths to establish what is common knowledge, i.e., (1) that only *discretionary* spending/income constitutes the freedom that money potentially bestows, and (2) that the poor have relatively (and absolutely) less of it than the rich. The use the word "discretionary" gives the game away, of course, making (1) a tautology and (2) contentless.

For me, freedom is a puzzle, something worth putting one's finger on. I am also trying to establish the larger framework in which this commonplace observation about social-economic life—i.e. that the rich, in that telling phrase, are "better off" than the poor—makes the most general and systematic sense. This framework views human social life as an economic system of token production, exchange, and consumption. Tokens are addressed to needs, one of which (indeed, the highest of which) is the need for moment-to-moment freedom to have/relinquish, come/go, be/do as one pleases, as chosen from as large a set of alternatives as possible, or as one might willingly abandon oneself to chance. How money plays a major role in all this is a complex matter and of no small interest. As I said at the opening of this chapter, what we are developing here is not another "quantity theory of money," like that of the monetarists, but rather a "choice theory of money," one that can offer richer intellectual pathways from economics to computation, evolution, psychology, and so forth.

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[74] For a discussion of the idea that nearly all goods satisfy more than one need at a time, including freedom, see Chapter Four, especially pp. .24–25, and Chapter Six, especially pp. 30–32.

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[75] Let us not forget also the deeper idea that freedom is a component of all the needs and of our progress from one to the other, emerging as a clear need in its own right and directly, as pure existential freedom, only at the end of the "climb" and the substantial satisfaction of the lower needs. See Chapter Four, pp. 27–29

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[76] Let us remember why at least the *freedom-delivering* component of money does not decrease with the amount of money involved as the law of diminishing marginal utility says it would. The log of the number of ways of spending x dollars—which is $C_{pot}(x)$—increases almost linearly with x, meaning that $\Delta C_{pot}(x)/\Delta x$ decreases very little for large x. See Notes 97 and 98 of Chapter Seven.

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[77] In Kyoto there are restaurants where "you do not pay until the end of the year. And then you have to guess what you owe. ...'If you pay too much or too little, you show that you don't understand value. You show who you are by how you pay.'" Suzannah Lessard, "Quietly He Grew on Them," *New York Times Magazine*, April 12, 1998, p. 57.

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[78] Perhaps the most obvious indication of the dedication of "excess" money to ultimate security is the positive monotonic relationship that holds between wealth (income) and the share of income spent on health, home insurance, and retirement investments. Insurance of this sort is a "superior good." (Cf. our discussion in Chapter Eight, p. 31.)

"Ultimate security," as I have called it, naturally entails taking measures to maintain one's standard of living into the future and against all eventualities. In an era of corporate "downsizing," job security in particular is low. Whereas the downsizing that dominated in the 1980s involved blue collar and rust-belt workers, downsizing in the 1990s, fueled by mergers and computerization, extended to white-collar and managerial positions.

Now, what was the rational response of those (a) who still had their jobs and (b) who were making relatively good money? This: to earn *more* money as quickly as possible, and not necessarily through the long-term investment of their time and skill into their own companies. After all, one might not be around to benefit from those investments, at least as a wage earner. Better is it to be a stockholder, and better still is it to diversify. Indeed one must build up a personal nest-egg against the possibility of being let go in some downsizing, or restructuring, or merger. As a result, more and more of the money-capital earned by the wards of corporate profits found itself in the stock market, chasing itself, as it were, betting on itself, but above all providing investors with the security they needed against their own demise as agents of the system that threatens them. (If someone who took these precautions were "downsized," he may end up painting houses, looking after the kids, selling pottery, etc. but at least he would not descend into true poverty, not with his investments from his previous life silently spinning off $30K per annum....).

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[79] Another line of thought leads to the same conclusion. While they might enjoy the deference (respect, approval, recognition...) shown to them almost everywhere they go, most known-to-be-wealthy people are leery of seeking that deference, of making too much of it, or of taking umbrage when it is not shown. Winning the approval of everyone alive and/or the respect of every important person transaction by transaction, good work by good work, is a hopeless quest, and undignified to boot. Fortunately, there is a more efficient way to instill the requisite respect in hundreds, thousands, even millions of other people. The wealthy need only to promote and perpetuate what they have arrived at "philosophically": to wit, the audacious belief that God Himself has endorsed the history and the politico-economic system in which, and by which, they have so demonstrably flourished. Favor by God? This is favor, by God! Let others observe!

Alexander Pope, in beg-to-differ mode, said: "We may see the small value God has for riches by the people He gives them to." (Kevin Jackson, *The Oxford Book of Money* [New York: Oxford University Press, 1995]). On a harsher note, Jesus said: "It is easier for a camel to pass through the eye of a needle than for a rich man to enter the Kingdom of Heaven" (Mark 10:25), a quote I remarked upon earlier, in Note 53 above. And Epictetus: "For wherever someone's advantage lies, there he also shows piety." (Epictetus, Remark 31 in *The Handbook of Epictetus*, transl. Nicholas White [Indianapolis: Hackett, 1983], p. 21.)

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[80] Either this, or he keeps the company only of other rich people, reads *Barron's*, drives in darkened limousines...and the issue is not raised at all. Another possibility? He hides his wealth from everyone, including, in a certain way, from himself. He simply denies that he is rich, works harder than anyone else, spending longer hours and with more determination, does not spend his earnings in any visible way, and is thrifty to a fault.

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[81] Some readers may object to the picture painted here of the very rich. These readers may know (or may *be*) wealthy people who are perfectly comfortable with their money and property and perfectly secure in the validity of their reasons for having it while most others do not. Rewards to enterprise, intelligence, wise stewardship of inherited wealth, etc. are commonly put forth as such valid reasons. Luck plays no part: all people are equally lucky; the superior person merely capitalizes on his share of it. Gamblers are losers, period.

But I would want to argue still, and with all due respect, that underneath such upstanding reasons for self-approval lie exactly the sorts of quasi-mystical justifications we have been exploring, namely smiling gods, universes with a peculiar spin. Some 70% of Americans "believe that their financial situation is 'at least somewhat' reflective of 'God's regard' for them." ("Harper's Index," *Harper's Magazine*, October 1995, p. 11)

It is often said that the rich want *power*, indeed, that they become rich to gain more power. On our analysis, *power* is simply the variety of force that corresponds to the need for security. To say that the rich seek power, then, is only to say that, feeling insecure (for any number of reasons, or because their freedom is poorly-founded), they wish to feel *perfectly* secure and are more willing and able than most to use their money to motivate others at the same stratum of need, i.e. security and its neighbors on the stratigraphy, legitimacy and survival.

It follows that people, rich or poor, who are most intent on demonstrating their power often learn to use what power they have *arbitrarily*. They *must* act irrationally; they *must* confound expectations, even if it costs them something—indeed, especially if it costs them something. Why? Because to act otherwise—i.e. to act for reasons that other people can discern—is to risk falling into their predictive ambit and therefore into *their* power. Consistency is thus to be avoided. By acting irrationally or arbitrarily, a deeper need is served, a "larger cause" is served—namely, that of the increase of power itself. So many are the things that the perpetually insecure, power-hungry person will do—including occasional but always instructive-to-others demonstrations of being "beyond understanding" and therefore of being *most like God*—that it is clear that real power is not a goal in any final sense. It is, rather, an addiction, a delusion.

Predictability, regularity, and explainability all offer security. The power-obsessed person cannot afford to let others feel secure on this account—not if their security is to depend on *him*. By acting arbitrarily he keeps those around him perpetually insecure and the traffic in tokens, therefore, of maddeningly large value.

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[82] What might still be argued is how *much* money ought to be made this way, as opposed to by practicing medicine or being a janitor. It is said that return is the reward of risk: the higher the risk, the greater the return. But this is not entirely accurate, of course. High risk means *maybe losing* whatever amount of money one has invested. The correct idea is that in the long run, and over *many* risky investments, an *average* rate of return is a just measure of the social value of the activity of choosing-where-to-invest. There is also value in *granting* money wisely, as when a philanthropic foundations chooses who and what project to support. With no hope of monetary return, it's the choosing itself that adds value because it fetters money to its most urgent or long-term social uses. To have nothing but money is to have nothing but choice as to what to buy or who to "give" it to.

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[83] I am taking the liberty, as it were, of translating Dostoevsky's "liberty" into our "freedom." As I explained in Chapter Four, I take "liberty" to refer primarily to civil liberties—to rights—rather than the moment-to-moment personal and metaphysical freedom to do what one pleases. It is the latter sense of liberty, I believe, that Dostoevsky had in mind.

Here is the larger passage from which this oft-cited line is taken (from *House of the Dead*, transl. Constance Garrett [London: Heinemann, 1915 {1862}], p. 27):

> Money is coined liberty, and so it is ten times dearer to a man who is deprived of freedom. If money is jingling in his pocket, he is half consoled, even though he cannot spend it. But money can always and everywhere be spent...

Though his intentions are clearly to make a larger statement about human nature, Dostoevsky is here recounting day-to-day life in a Russian prison camp, the fact that economic life continues, and that money continues to have value.

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[84] The reader may want to compare this passage to our discussion of the addictive nature of gambling in Chapter Six, Note 81. See also the disturbing novel by Luke Rinehart, *The Dice Man* (New York: William Morrow, 1971) and of course Dostoevsky's own *The Gambler*.

Thorstein Veblen had little good to say about gambling, as one might imagine, and tied it also to quasi-religious superstition. The use of random events and patterns (in fresh entrails, bones, tea leaves, card draws, dice throws...) in the process of divination makes divination and gambling\ not that far apart.

> The gambling propensity is another subsidiary trait of the barbarian temperament.... It is recognized to be a hindrance to the highest industrial efficiency of the aggregate in any community where it prevails in an appreciable degree....
>
> The chief factor in the gambling habit is the belief in luck; and this belief is apparently traceable...to a stage in human evolution antedating the predatory culture... In its simple form the belief in luck is [the] instinctive sense of an inscrutable teleological propensity in objects or situations. Objects or events have a propensity to eventuate in a given end, whether this end of the objective point of the sequence is conceived to be fortuitously given or deliberately sought. From this simple

> animism the belief shades off by insensible gradations into the second, derivative form or phase above referred to, which is a more or less articulate belief in an inscrutable preternatural agency.
>
> *The Theory of the Leisure Class* (New York: Macmillan, 1899), pp. 276, 277:

Perhaps the definitive psychiatric analysis of compulsive-addictive gambling remains Edmund Bergler's *The Psychology of Gambling* (New York: Hill and Wang, 1957). Bergler emphasizes the typical gambler's unconscious desire to *lose* money, this for any number of reasons.

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[85] See Bergler *The Psychology of Gambling* and his eponymous article in Robert D. Herman, Ed., *Gambling* (New York: Harper and Row, 1967), pp. 113–130, and also Iago Gladston's "The Gambler and his Love" in the same volume, pp. 131–135. By contrast, William R. Eadington in his *The Economics of Gambling Behavior* (Las Vegas: Bureau of Business and Economic Research, University of Nevada, 1973) has little patience for the idea that gamblers *want* to lose. As though to disagree, Frederick Barthelme's novel *Bob the Gambler* (New York: Houghton Mifflin, 1997) revives the theme of "losing everything" being the aim of habitual gamblers. And for a reason: having lost everything, Barthelme's hero is finally embraced by his family.

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[86] The words are actually Kris Kristofferson's.

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[87] It is sometimes noted that people will bet on their favorite sports teams even when they think that the opposing team is most likely to win. Is this rational? Not if the object is to win money. But we realize that this sort of bet is really not a *bet* at all. It is, rather, a supplication to Fate, a prayer, as well as a public binding of oneself, in loyalty, to the fate of the team: "If they win, I win; if they lose, I lose!" Such a "bettor" may win some money if his team wins, but psychologically, spiritually, socially, *he cannot lose.* Here economy and psychoeconomy part ways.

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[88] This may seem unrelated but I suggest it is not. Let us make a parallel between "choosing well" in general and correctly (and completely) answering multiple-choice questions in an exam. Social scientists Claude Steele of Stanford and Joshua Aronson of The University of Texas propose to explain the low academic scoring rates of blacks (on tests such as the GRE and SAT) as directly stemming from anxiety at the time of the exam. What causes this anxiety? Precisely, Steele and Aronson say, the stereotype that blacks are academically inferior. Black students are fully aware of the stereotype and fear that it may be true of them personally. When one group of black students was given a test with the prior framing instruction that the test was merely a "psychological experiment to examine the factors involved in solving verbal problems," they did as well as whites on that same test, with the same framing. When the framing was different, to wit: "this is a genuine test of your verbal abilities and limitations," black students did far worse than whites. Their confidence, not as well-founded as whites', was undermined, and with it their ability, in freedom, to choose well. The same is likely to be true of young girls taking math exams. This makes one realize how much academic success, and perhaps success in general, depends on prior feelings of social worth and deservingness, i.e. legitimacy. See Ethan Watters, "Claude Steele has Scores to Settle," *The New York Times Magazine*, September 17, 1995, p. 45ff.)

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[89] Should poker be in the school curriculums? Or roulette? Perhaps so. Teenagers find their own venues to play games of chance, of course, not waiting for their high schools to sanction them or teach with them. Some have bridge clubs. Teaching the young to dealing rationally with the elements of chance and fate in life falls to the coaches of competitive games such as football. Here one learns both to accept good and overcome bad luck.

Unfortunately, for an ever growing number of people, the rehearsal that is gambling is steadily becoming the performance that is life. As America's obsession with the feeling of freedom at all costs continues and, with it, the belief in good fortune as divine justice if not Calvinist evidence of prior grace, so we can expect to see legalized gambling, the fastest growing industry in America at the time of this writing, to spread farther and farther, as it has done since the early 1980s—from Las Vegas to Atlantic City to New Orleans to Detroit, to numerous Indian reservations, to riverboats all along the Mississippi, and to Niagara Falls, where one of the greatest splendors of nature on earth is apparently no longer a sufficient attraction.

With lotteries coast to coast, almost every state in America, if it has not already done so, is seriously contemplating permitting and sponsoring major gambling enterprises in order to "stimulate" their economies and help raise tax revenues. Indeed, with an estimated $500 billion or more wagered in 1995 and roughly 8% kept as profit by casinos, race tracks, bingo parlors, state lotteries, sports bookmakers, slot machine owners, etc., legal gambling already constitutes a $40 billion industry in the U.S., which is bigger than the domestic motion-picture and recorded-music businesses combined (These figures are offered by the New York-based industry journal *International Gaming and Wagering Business*, and cited by Evan I. Schwartz, "Wanna Bet?" *Wired*, October 1995, p.134, from which the last sentences were paraphrased.)

Fewer people than ever, it seems, believe that ordinary *work* can earn good money any more, nor even the discovery of new sources of value. *Money* makes money "if you're prepared to take a few chances," and everyone knows *that*

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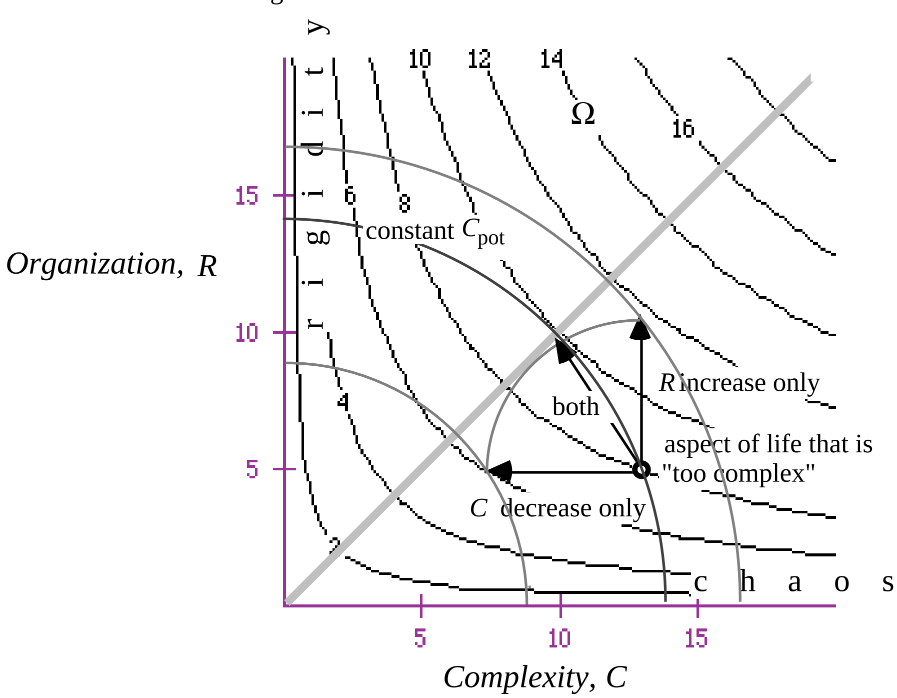
[90] Here is a more detailed depiction, based on the formalism presented in Chapter Two. One starts with the position on the Ω-surface labelled "aspect of life that is too complex" in the diagram below. Taking the simplifying-only path labelled "*C* decrease only" cannot increase Ω even though it brings one closer to Ω-optimality (the diagonal line) at a lower level of Ω. If C_{pot} is constrained, it is of greater value to take a path like the one labelled "both" in the diagram below, which entails increasing *R* at the same time as one *de*creases *C*, which reduces C_{pot} little or not at all. This trajectory brings one to Ω-optimality at a higher level of Ω. Maintaining C_{pot} means keeping one's hectic job even as one chooses a minimalist apartment; decreasing *C* alone without increasing *R* means adopting a simpler life overall and forgetting the details of its former complexity. In this last scenario, C_{pot} is reduced too. If C_{pot} is not constrained (by space, time, law, imagination, knowledge, or money), then the path that increases *R* alone has the greatest value.



Let us try to cast the concept of freedom in these terms.

Imagine a composer with a very small piano: it has only one octave of black and white keys, or 13 notes in all. On this range of 13 notes he must compose and play what melodies he can. (Assuming a standard length of melody, say, 24 notes of equal length, timbre, and emphasis, C_{pot}(melody) = 24$\log_2$13 = 89 bits). Can these melodies be lovely? Yes. An analysis of his note-usage in these melodies will reveal that he does not actually play all 13 notes randomly, or a roughly equal number of times. Nor does he play *one* note over and over. As we saw in Chapter Two, the nicer melodies will be apt to have "favorite notes" (and favorite sequences of notes) such that Ω is optimal—which is to say, melodies with note-probability distributions such that $C = R = \Omega = C_{pot}/\sqrt{2}$ = 63 bits. "Melodies," that is, have organization; they obey constraints. The composer accepts that he is not actually free to play any note at any time *and have a melody*. He does not feel compelled on the one hand (unless he is a 12-tone serialist) to give *every* note an equal playing just to prove that he is free to play every note. Nor does the he feel compelled, on the other hand, to pound away at a single note, 24 times over, just to prove that he is free to do that too. Rather, he plays most if not all of the notes in the long run, and some much more often than others. Avoiding both rigidity and chaos, and the appearance of compulsion in either direction, he takes the more subtle, Middle Way—which has the highest Ω possible for the instrument. (The same analysis can be applied to multi-note clusters like phrases and chords.)

Now suppose that our composer is given a larger piano, one with 5 octaves (80 keys). He technically free to play any one of these 80 notes at any time. (C_{pot} for a 24-note melody is now 24$\log_2$80 = 152 bits.) *Here is the crux of our argument*: if the composer keeps playing the same sorts of melodies as he did before (i.e. with the small piano), and he does *not* avail himself of the larger keyboard, then, like a bird whose cage is opened but who will not fly out into the room, he is, in one sense, no more or less free than he was before, but in another sense much *less* free than he *could* be: not because C_{pot} is now 152 bits, which is by itself "neither-here-nor-there," but because Ω-optimality is now at $152/\sqrt{2}$ = 107 bits, which is greater than 63 bits. His continuing to compose lovely 63-bit melodies on a 80-note keyboard capable of delivering 107 bits of more complex-and-organized beauty makes him appear—to others at least if not to himself—unnecessarily constrained, overly-organized, as "not really *using* the instrument," and so forth.

Put in ordinary terms, *freedom* lies not in the achieving of, or discovery of, a new and expanded range of possibilities for thought or action. It lies in the achieving of, or discovery of, a higher absolute level of complexity-and-organization *in one's actual thoughts or actions*, up to and including the highest degree of complexity-and-organization, Ω, possible *given* the range of possibilities one has. Indeed, in real life, just adding possibilities—especially if one does so suddenly—that one never uses can make one *less* free if, feeling shy or agoraphobic, because one actually constrains oneself more strongly.

Moreover, we need not always have a "larger piano" to experience gains in freedom: if our playing, at present, of the smaller piano is at less-than-Ω-optimal levels. *Only as we come close to Ω-optimality using the possibilities we have does the case become compelling that a larger set of possibilities is necessary.* One drummer might play a pair of bongos more freely than another plays a large drum set, although the latter's drums offer more possibilities. And yet a third drummer might play the drum set with an Ω greater than both.

In sum, the mistake people commonly make is to confuse number-of-possibilities (C_{pot}) for freedom (Ω). The former may be necessary for freedom, but it is not sufficient.

(The reader may recall Paul and Quentin's experience of the color machine in Chapter One, pp. 10–12. See also my discussion of the liberal and conservative views of what "more freedom" means in Chapter Two, p. 16, and of getting money you *don't* spend, in this chapter.)

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[91] On this view, Marx's blanket rebuke of modernity—"all that is solid melts into air"—may have been nothing more than fear of heights. If one could have examined the psyches of workers in Marx's time, one might well have found them "alienated" from the fruits of their labor (as well as exploited financially). In the modern day, it might be argued that the average worker is no less alienated from his work, or exploited, but is far more enmeshed in the lives of his co-workers, and even customers, on account of his work. This, at least, was the hopeful message of TV programs in the 1990s like *Cheers* and *Murphy Brown*, and commercials for firms like General Motors' Saturn division. A good may be simplified to the point of evanescence, to the slightest of gestures, a nod, a permission...but it may *mean* a great deal because of the reach of its effects or because of what we know of its provenance. One thinks here of Herman Hesse's marvelous book *The Glass Bead Game* (............)

[92] I would add to this list: medical techniques and technologies, many pharmaceuticals, the law, scientific instruments and programs, academic research and publications, energy generation, space-exploratory and military hardware...all of which have proliferated in total number and in complexity-and-organization, but all of which, until recently, were developed with rather little concern for containing costs because of how they were paid for: i.e. by federal and state taxes, by huge insurance companies, by politically regulated monopolies, and so forth. Their evolution as products of human ingenuity was no "bottom up" miracle of the retail marketplace. The Internet itself, of course, had military beginnings (as ArpaNet) and continues to be funded indirectly by government through universities.

[93] This is a contentious statement. Many would point to tax-supported government help of certain industries at critical moments in their growth (e.g. Chrysler in 1980, the railroads at the turn of the 20th century, farm subsidies and price supports to this day, highway construction, etc.), to federal protection of export and import industries through trade tariffs, and to the government's propensity to turn a blind eye to certain unscrupulous capitalist practices (such as General Motors' ploy of buying up and then closing down of tram lines in cities across America in the 1930s in order to increase the demand for cars and busses). And of course there is the continuing influence of industry-funded lobbying on lawmakers, on the finance of political campaigns, and so forth.

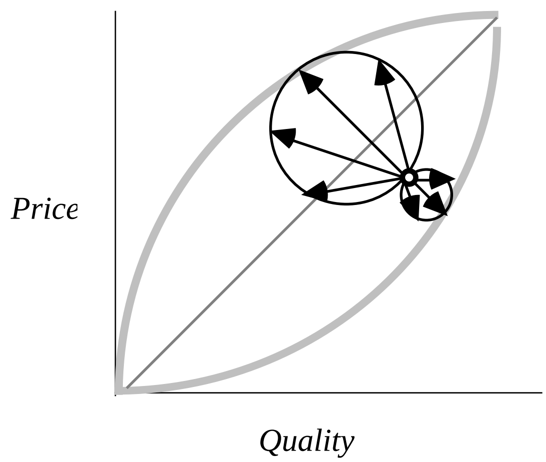
And so when I speak of products evolving without extra-market help, I do not mean to be naïve. I would be happy for my questions (and claims) to apply to only those goods that the consumer driven market *has* evolved without extra-market help, or to goods that, once established by public monies, such as the Internet, continue to evolve without further funding or protection from government beyond its continuing regulation of market fairness through anti-trust actions, support of the civil courts, and so forth. Movies are a perfect example of a category of goods that has evolved tremendously in complexity-and-organization, almost completely through direct appeal to consumers in the marketplace and between-producer competition for market share.

[94] One example of extraneity: the shape of the Absolut Vodka bottle relative to the quality of the vodka. One example of hard-to-notice characteristics: the distortion-free output-power of home stereo amplifiers. Buying diamonds (or Persian rugs, or antiques, or art...) demands a veritable education in "what to look for" before parting with one's money. Needless to say, there is considerable room for flim-flammery when a good's essential characteristics are all but invisible, as in the case of diamonds, or completely invisible, as in the case of narratives of provenance offered by boutique owners.

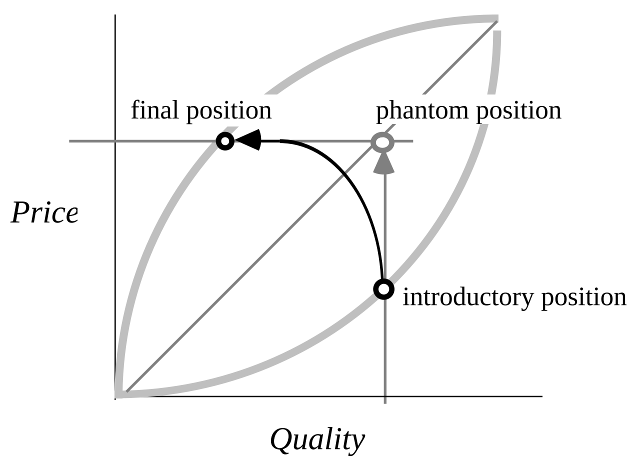
[95] This is not to say that every consumer values the same attributes of a given brand (or instance) of a good to the same degree, of course. Different people want different things in the same goods. No two individuals would label all the dots in Figure 9.5 with the same brandnames, but (a) each and all (I think) would agree that the dots "for them, anyway" are spread about like Figure 9.5b, and (b) large demographic groups would agree.

[96] Indeed, the need to keep sales *volume* up and thus total profits at some level is the most common deterrent to raising prices as a profit-seeking strategy. This usually makes lowering quality, or at least lowering costs, the preferred strategy, as we have been discussing.

[97] In the case of Figure 9.6, the good lies in a central position with respect to other goods in price-quality space. But were it positioned elsewhere, we might imagine the forces of the producer-seller's and consumer-buyer's desires looking different:



It should be noted that the geometrical constraints on these vectors and the reasonableness of their implications—for example, a tendency to equilibrium along the 45^o line, which "explains" positive price-quality correlation in the first place—are the happy outcome of reading the diagram a certain way rather than of any empirical research. The diagram below, however, does a fairly good job of describing the findings of Douglas Gale and Robert Rosenthal ("Price and Quality Cycles for Experience Goods," *RAND Journal of Economics*, vol. 25, No. 4, Winter 1994, pp. 590–602) on how a firm can exploit the fact that quality losses are harder to perceive (due to reputation effects) than price changes. A new product is offered at a consumer-pleasing low cost and high quality. This position is untenable in the long term for the producers. Over time, costs are cut and prices raised. This trajectory can be taken past the 45^o line to a highly profitable final position if the firm's *reputation* for quality keeps bringing in new customers, or if repeat customers are insensitive to actual quality changes. Both groups believe that the good is positioned at the point marked "phantom position" on the diagram below.



Gale and Rosenthal point out that the exploitation of reputation for quality is more likely with firms that know—where customers do not—that they face a predetermined shut-down date (say through loss of lease, sale, or bankruptcy). For eventually word does get out that the product is poor, and the phantom evaporates.

Restaurants seem peculiarly prone to exemplifying this story.

[98] The average economist's reaction to this claim might be surprise: how could it *ever* be a "good thing" for goods and labor both to become more expensive? At best they would cancel each other out, leaving no one better off. The idea behind economic growth is to increase the total *number* of goods produced relative to the total *number* of hours worked while keeping prices steady and fair. Standard economics does not have a good way to deal quantitatively with qualitative growth, or even a good way to account for absolute rather than relative prices (and wages).

This is a point I will pick up in Chapter Ten. Here, suffice it to say that economic progress does *not* consist in making more goods more expensive and thus less affordable to most people, or even vice versa, i.e. making more goods less expensive and thus more affordable to more people. Rather, it consists in making more goods more expensive *and* more affordable to more people, and this not through *inflation*—which is just too much money in circulation, empty numbers—but through real growth in the absolute number of actors, agents, jobs, markets, processes, product "species," and product characteristics that interact with each other to serve human needs. Greater complexity-and-organization, in a market system that generates quality variety and then uses money to ration choice, both requires and costs more money at every market juncture in order to function. Broad increase in nominal prices and wages, as has occurred for the greater part of human history, is neither arbitrary nor regrettable. Rather, it has reflected, over and above episodes of purely monetary price inflation, broad increase in the complexity-and-organization of human affairs, human skills, and human products. We can expect it to continue.

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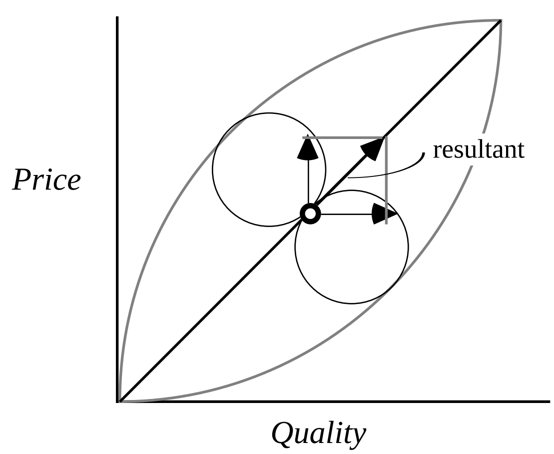
[99] One could represent the situation like this:



Asymmetric resultants are possible, of course, depending on where the good is initially located in the price-quality space and on what vector each party is persuaded to follow.

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[100] Return to Equation 8.3:

$$P_s \geq K_s\, r_s^{\mu} \text{ where } r_s = \frac{\beta(\log B_s + N_{\mathrm{B}})}{\gamma(\log G_{B_s} + N_{\mathrm{G}})} .$$

In the original formulation, $N_{\mathrm{B}} = N_{\mathrm{G}} = N$. Here we distinguish them. N_{B} represents the number of attributes of the good that the set of B_s potential buyers (on average) value, and N_{G} represents the number of attributes the good actually has. Usually, but not always, $N_{\mathrm{B}} < N_{\mathrm{G}}$. (Cf. also Note 40 of Chapter Eight and the text it annotates.)

Strategy 1 increases the size of N_{B} (i.e., "N_{V}" mentioned earlier in this chapter). K_s stays the same with respect to manufacturing costs, but increases with advertising costs. Overall, the effect is to increase P_s and decrease market share if education and advertising failed to make β and/or μ higher, and γ lower. Strategy 1 also depends on maintaining or increasing the magnitude of $f(V_b)$.

Strategy 2 decreases N_G and K_s at the manufacturing level. The producer-seller can now either lower P_s to match, and even sacrifice per-unit profit if he thinks total profits will increase with the market share won by lowered asking prices for the "same" good. Or he could keep P_s at the older, higher level (by depending on consumer-buyer habits and implicit collusion by producer-sellers), and pocket the extra total profits.

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[101] As cheap as they were becoming through the 1980s and 1990s, they were becoming even cheaper to *make*; and not all of the savings from using new production technologies (themselves often enabled by the increase in volume caused by the lowered price) needed to be passed along to consumers. Why? Because there is always some time lag in the perception of the good's usual or "proper" price. (See Note 94 above). Indeed, if the price of a good that has "always" cost more drops too far too quickly, consumers are apt to become suspicious of its present quality, or, if satisfied with this, resentful that it *ever* cost them more. Certainly, the good would lose in prestige value.

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[102] I am thinking here of the breathless pages of *Wired* magazine, of the writings of its editor Kevin Kelly, of guru George Gilder, and the whole tribe of how-computers-change-everything futurists (among whom I have sometimes been mistakenly included.)

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[103] An analysis of the effect of "computer thinking" and computer use on architecture is presented in the next chapter.

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[104] Cf. also our discussion of goods whose prices are determined by consumer valuation rather than between-seller competition in Chapter Eight. In the formalism of Equation 8.5, $f(V_b)$ on the right side is linear, monotonic, and positively sloped.

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[105] It may seem odd, and against our theory, to recommend (as I do in point 5) to "lower the stratum of need addressed." Surely, if it's progress we want, we should *raise* the stratum of need addressed. What I have in mind in letting the recommendation stand, is that to "lower the need addressed" is also to turn attention and ingenuity towards its more complete satisfaction by more people. It is the more complete satisfaction of a need that allows one to ascend the stratigraphy in an always-well-founded way. Health care *is* the first thing to get right and to make universally available, no matter what other good one personally champions or aims to profit from providing.
