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SYMPOSIUM: LEGACY OF MILES LITTLE

An Archeology of Corruption in Medicine

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Abstract Corruption is a word used loosely to describe many kinds of action that people find distasteful. We prefer to reserve it for the intentional misuse of the good offices of an established social entity for private benefit, posing as fair trading. The currency of corruption is not always material or financial. Moral corruption is all too familiar within churches and other ostensibly beneficent institutions, and it happens within medicine and the pharmaceutical industries. Corrupt behavior reduces trust, costs money, causes injustice, and arouses anger. Yet it persists, despite all efforts since the beginnings of societies. People who act corruptly may lack conscience and empathy in the same way as those with some personality disorders. Finding ways to prevent corruption from contaminating beneficent organizations is therefore likely to be frustratingly difficult. Transparency and accountability may go some way, but the determined corruptor is unlikely to feel constrained by moral and reporting requirements of this kind. Punishment and redress are complicated issues, unlikely to satisfy victims and society at large. Both perhaps should deal in the same currency—material or social—in which the corrupt dealing took place.

Keywords corruption · pharmaceutical companies · medicine · prevention · punishment · redress

Corruption

Corruption is always in the news. In what follows, we will deal specifically with corrupt practices and dealings, and will leave crimes such as theft, murder, assault, and forgery to one side. There may be overlap between corruption and many other crimes, but we want to unpack the concepts of corruption and its consequences. The word "corruption" carries so much baggage that it merits a brief semantic examination. It began life meaning broken or spoiled, and subsequently gathered the connotations of death, rotting, disintegration, and stench. From the fifteenth century onward it garnered the further meaning of dishonest, opportunistic, venal, and untrustworthy. In modern use, it is this latter meaning that has become most familiar. Individuals, corporations, institutions, and governments can be corrupt in their dealings.

In this article, we expand on published definitions of corruption and then consider how corruption plays out in contemporary biomedicine, specifically with respect to interactions between medicine and the pharmaceutical industry

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Defining Corruption

Dictionary definitions of corruption point to meanings that extend from the processes of decay that follow death to the malfeasances of bribery or obtaining money under certain kinds of false pretences, to sexual opportunism by those in authority, or to semantic misuse by successive translators of iconic texts from one language to another. The meanings differ, but they have a concept in common. From a socially integrated start, they indicate a decline in function, a rottenness, and a disposition to repulse or deceive.

First, to be corrupt in a contemporary sense requires an action or a set of actions, and therefore requires corrupt agents. Bribery, which requires two agents at least, is a paradigm example of corruption. Someone must offer a bribe and, to complete the corrupt action, another agent must accept it. Both agents stand to benefit, so why is this not simply another form of legitimate exchange? We understand corruption to mean that the exchange is unfair to other agents or agencies, which are disadvantaged by the priority given to the bearer of the bribe. The bribe, the corrupting token, secures a privilege denied to others. The currency of the exchange may or may not be material. A priest may corrupt an altar boy by offering patronage and pride of place, or special friendship in exchange for sexual favors, and a teacher may do the same while offering academic advancement to a pupil.

Second, they have in common an exchange of perceived goods that is outside social norms. Each represents an exchange that ought to be regulated by standards of governance, rules of contract, moral norms, social habits, intellectual rigor, or pastoral responsibility. In the case of government bribery to secure mining rights, for example, there are laws that interdict the act, there are community expectations of fair dealing, and there are governance bodies to review and prevent such things from happening. The unfair dealing that goes on is met with media coverage, public indignation, court proceedings, inquiries by bodies of review, and sometimes by punishment by fines, imprisonment, loss of corrupt contracts, and sanctions against further business dealings, all signs of social disapproval and of anger toward freeloaders who abuse trust and the norms that stabilize societies.

Third, corrupt acts share their dependence on *social entities*. Corrupt agents make use of organizations and institutions to which they can appeal for credibility and authority. It is this characteristic that more than any other provides the modern context for understanding the term "corruption." A thief, a fraudster, a con artist, or the purveyor of cancer cures can all act alone without institutional backing, but the corrupt person cannot.

Corruption is, therefore, distinguished by the public perception of the intentional hijacking of a benign or benevolent social entity (a system, organization, or institution) for the benefit of a select group who pose as fair traders on behalf of the entity. It is the intentional leverage of trust or assumption of beneficence that distinguishes corruption.

For all of these reasons, we are made angry and resentful by corruption because it represents hypocrisy and freeloading on the trusting relationships that are generally assumed in Western societies. It breeds distrust, and it taints the reputations of trusted groups and institutions.

Origins of Corruption

Corruption arouses public indignation. Yet empirical studies show that it remains widespread, and that it has a long and uninterrupted history that begins with the earliest written documents. Anything that survives so long in the face of so much distaste and hostile legislation must presumably have some evolutionary reasons to survive. We suggest that there are two closely connected explanations.

Institutions, Organizations and Systems as Sources of Corruption

The first explanation is the nature of *social entities*: institutions, organizations, and the systems that hold them together. For the purposes of this article, institutions are the broad, conceptual repositories of ideals, ideologies and social theories.[1–4] They are influential social ideologies semantically grouped under such headings as government, religion, sport, or education. They are expressed in discourses and practices, and in organizations. Organizations are more discrete real or virtual social entities.[5–8] They are focused condensations of social interests that express social beliefs and commitments characteristic of institutions. Systems are the underlying cohesive and practical linkages between the components of

institutions and organizations that describe and prescribe their actions, interactions, and functions.[9–12] Institutions, organizations, and systems have clearly defined and generally benevolent social functions. Unfortunately, the trust they generate can be used corruptly by opportunists for private benefit. Trust in the functions of a prestigious health science laboratory allows an individual such as John Darsee[13] to practice corruptly, publicizing false data and false achievements for his own advancement by trading on the reputation of his host laboratory. The same process of individual corruption can be traced in the Baltimore scandal[14] and in many others.[15]

At every point in this simple model, there are opportunities for individuals or groups to corrupt. All social organizations are "corruptogenic" in this sense. There will always be latent opportunities to manipulate the internal and external relationships to one person's or to a group's advantage, to pervert governance to benefit the institution unfairly, to deviate assets away from the proclaimed function of the institution, or to abuse public trust or institutional opportunities or powers. No institution, organization, or system, however pure its origins, however clear its social functions, can be immune to corruption, whether that corruption comes from within, from without, or operates in both directions. All organizations—for example, churches, schools, armed forces, local or national governments, or voluntary organizations—create opportunities for particular kinds of people to express greed for material goods, power, and self-gratification. They can use the structures and functions of the social entity to manipulate their client base and beyond for ambitions that are perversions of the organization's declared functions. And once the underlying system has been adapted in corrupt ways, its altered structure and functions may be perpetuated by subtle changes in normative standards and practices. The bigger the organization, the more suitable it is for corruption to take hold. The nooks and crannies of large organizations offer opportunities for corruption to develop and continue unremarked, and to affect these organizations' systems of practice.

Topography of Corruption

This dependence on social entities is complex, and may happen in four ways. The corruption may work from the inside out, from the outside in, from the inside in, or in both directions. Corruption entirely within an organization identifies itself, for example, by bullying of neophytes, hazing, and sexual opportunism. In each of these instances, "elite" groups victimize the vulnerable recruits or draftees into their organization in the name of tradition or implicit rules.

Corruption that works from the inside out can be exemplified by insider trading, by the actions of Nick Leeson, for example, the futures trader who crippled Barings Bank, and by the priesthood involved in pederasty. In each case, a person or group inside a socially established organization made use of resources and currencies, in which their institutions trade, for selfinterested purposes.

Corruption that works from the outside in is the corruption imposed on one system by another that is more powerful. The degradation of the German justice system under the Nazis illustrates one extreme example. The justice system and its paraphernalia persisted, but the judges were replaced by fervent Nazis, and Nazi ideology became central to court processes. Trials became show trials. In this instance, all the trappings and discourse of the old justice system were used to demonstrate that the state still respected the institution of the law.

Two-way corruption is prevalent and often scarcely noticed. The exchange occurs because it suits both those within and those outside the system. Two-way corruption is spectacular when it happens in public, when ministers of state accept bribes or arrange favors for special friends or the powerful and wealthy in their constituency, but the subtle exchanges between the pharmaceutical industries and the medical profession are much less evident.

Human Nature

Human nature is a much debated entity. Bourdieu's model of *habitus* and *field* provides one way of understanding it.[16] Habitus labels the way we are, the complex of inheritances and acquisitions that make us into the individuals that we become because of our genes, upbringing, social background, opportunities, intelligence, and moral sense. Fields are the social institutions and organizations into which we move as our lives and careers progress. Thus we may become at the same time doctors, lovers, wives, travelers, scientists, and tennis players, and into each field we bring a habitus that distinguishes us as individuals.

Therefore, if we develop with a particular sociopathic habitus, we may look for corrupt opportunities; otherwise, we may resist them, or we may tolerate them in others, or we may become whistle-blowers. The important issue is that organizations are "corruptogenic" for people of the right habitus. There is plenty of work that suggests that "psychopaths" abound, and often succeed in workplaces[17–21] (for a balanced review of this literature, see the article by Caponecchia and colleagues[22]).

Presumably, people with personality disorders of this kind have evolutionary survival functions. They tend to rise in organizations to become managers and CEOs.[23] Corruption is but one outlet for the person with particular traits that provide protection against too much sensitivity to the "face of the Other."[24] There are times of crisis and kinds of roles that are best managed by people with "sociopathic traits." We are unlikely ever to be rid of corruption.

Its practitioners are too close to the leaders that humanity needs to survive, feel secure, and flourish.

Corruption in Medicine and the Pharmaceutical Industry

Not all physicians, and not all who work for pharmaceutical companies, are corrupt. But all suffer from tainting because there have been episodes of corrupt behavior, and the degree of "guilt" needs further examination. We think it possible and reasonable to taxonomize associations with corruption under four headings.

First, there are those that engage actively. Theirs is an intentional act of private advancement, using the good name of the institution and organization in which they are situated, and the system that maintains their social roles. Examples of this kind of active engagement and promotion of corruption would be the deceptive promotion of factor VII for the management of bleeding of all kinds[25]; the continued marketing of cyclooxygenase (COX)-2 inhibitors after their cardiac effects were known[26]; the continued use of diethylstilbestrol after publication of the data on malignancy of the vagina[27]; and the continuation of the Tuskegee study in the face of clear breaches of human rights and therapeutic decency.[28]

Second, there are those who adopt an attitude of laissez-faire, akrasia, or willful ignorance. These are colluders, who know or suspect that something is wrong, but for reasons of self-enhancement, ignore suspicions and would-be whistle blowers. Both Darsee's[29] and Slutsky's[30] immediate colleagues[31] put their names to papers with fraudulent data without proper scientific involvement and critique. Researchers accepting pharmaceutical company grants are well known to produce results that favor the drug under investigation more frequently than those funded by government agencies.[32–35] Physicians who accept pharmaceutical company gifts make up a far less obvious, but nonetheless worrisome target group, for whom influence may be subtle and difficult to measure.[36,37] At a much less obvious level are medical researchers who accept gift authorship.[38] They are passive recipients of benefits they have not earned. What may seem to be a fair reward for past collaboration or seniority can be a mode of corruption, a practice that is unfair to those whose contributions were essential to the work in hand.

Third are the passive coworkers and technicians who work, whether they know it or not, on corrupted projects, and whose reputations and sense of trust in others may be permanently damaged. On a large scale, some priests of the churches involved in pedophile scandals may not have known what was happening in other parishes, or, if they knew, were unable to do anything to stop the practice. Laboratory workers in the laboratories of Baltimore, Iminashi-Kiri,[39] Darsee, and Slutsky may or may not have realized how much corruption surrounded them.[40] In a real sense, all were victims just as much as were the general public whose trust was violated, fellow scientists whose integrity was impugned, and the leaders and managers of organizations whose governance was betrayed. Tainting is a consequence of any corruption, and, unfortunately, it affects those who can honestly say that they played no active part in the deception involved.

Fourth are those who identify and resist the corruption. Known generally because they are "whistleblowers," they tend to suffer because they must often stand against great financial and legal power. Nancy Olivieri,[41] Betty Dong,[42,43] and Margot O'Toole[44] are three examples of resisters whose trials and tribulations

remind us that being "right" is not the same as being vindicated when vested interests are backed by money and experienced lawyers. Those who resist often suffer as a result.

"Beholden-Bias" and the Wooden Horse

So far, we have dealt largely with more obvious examples of corruption. But there are grayer areas that cause concern, areas in which there are biases and apparent inattention to standards of confirmation and refutation in science and practice. These are domains of social and symbolic interchange, where gifting becomes an issue.

Ritual gifting and exchange rings are ancient practices that serve fundamental social purposes.[45–48] Gifting creates "beholden-bias," a condition in which the recipient feels an obligation that is symbolically as strong as a material debt, but which is contracted solely within a moral frame.[49] It may not be a contract in law, but it is a contract in conscience, and a moral bond that is socially condoned.

Gifting alarms ethicists about the influence of the pharmaceutical industry on medical research and innovation.[50–55] There is evidence supporting the claim that pharmaceutical gifting and "granting" create significant bias in the minds and practices of medical practitioners.[56–58] Anyone who has received grant support from a pharmaceutical company to run trials on their products is more likely to find something favorable to say about the products than someone funded by, for example, a government grant.[55,59–61] The reach of the pharmaceutical industry extends beyond research into education and practice. Pharmaceutical sponsorship of educational activities significantly influences prescribing practices among younger physicians . Pharmaceutical company influence is portrayed as a "wooden horse" smuggled into the medical citadel, loaded with hostile mercenaries that may corrupt and destroy it.

Beholden-bias is complex socially, philosophically, and morally. There are several currencies involved. Material currency is both substantive and symbolic. The pharmaceutical industry is one of the sources of funds for clinical trials, and their budgets sustain the educational programs of many organizations. Pens and bags are of small value, but even they have been shown to have persuasive effect on the perceptions of recipients.[57] Material currency can, therefore, have material effect by exchange of physical goods, but it may also persuade those who receive it to affiliate their loyalties to a company and its products. No doubt the publicity and public relations departments of pharmaceutical firms are conscious of the binding effects of gifting. In that sense, they are corrupt in intentionally exploiting the good offices of an essential industry for private benefit. The goods are perceived to have special status because they are developments in the management of disease and illness, supposedly means of achieving survival, security, and flourishing for the masses.

We can, then, perhaps claim that the pharmaceutical industry acts corruptly in this technical sense, but within a framework widely accepted—and even endorsed—by Western societies.

Do physicians *intentionally* bias their science and their practice because they feel beholden to industry? There are two issues here. There are too many instances of knowing, systematic fraud in support of industry for anyone to deny that intent is sometimes present.[64] We can infer from patterns of wrongdoing and laboratory records that some scientists commit fraud for their own benefit, and sometimes for the benefit of sponsoring drug companies. Intent is a difficult state to detect and prove. The best we can do is to make inferences to the best explanation, to look for patterns, inconsistencies, incoherence, and things that are beyond the range of reasonable scientific or practice behavior.

Gifting stirs very deep and primal responses in recipients.[65] The sense of obligation and special relationship between giver and recipient works at levels that make it especially hard to disentangle conscious intent and unconscious motivation.

Preventing and Managing Corruption

The standard—and logical—response to systematic corruption is preventive. Calls for *transparency* and *accountability* have been lucidly argued.[66–72] by journal editors and researchers, and both concepts are appealing and potentially powerful ways to prevent corruption from happening. Unfortunately, they are both practically impossible to enforce against a determined person with his or her mind set on using the good name of an organization for personal gain.

We believe that a key element of any response to corruption should be insistence upon redress of some kind. Although the desire to punish corruption is as old

and persistent as corruption itself, and although punishment might well be an important part of a response to corruption, nothing is likely to abolish opportunism and dishonesty.

Corruption evokes distaste and anger in a society Economists, sociologists, and political scientists point out the many social harms that corruption causes, so that even high-corruption societies are suffering unacknowledged losses, whatever their beliefs about corruption as an expediting agent for development and business dealings. Its cost is measured worldwide in trillions of dollars.[73–77]

There would be no point in inventing one form of redress to fit all instances of corruption. The currencies of corruption are so different in kind. Material goods, money, property and land are quantifiable, and therefore theoretically compensable. But the spiritual and psychological losses of child abuse in the name of a trusted organization are neither quantifiable nor compensable in kind. Disempowerment by such things as abuse of legal process may also lie beyond measurement or restoration. Different victims suffer different kinds of loss (and usually several kinds at once), and different perpetrators make different gains.

Logically, redress needs to be in the same, or the closest, category as the currency of the corrupt dealing. Money for money, land for land, restoration for material loss, these are well established principles, even though the recompense may seldom be complete. But when the losses have been social, spiritual, or psychological, redress is less simple. These are not fungible goods in the same way as materials lost and gained. The best that we might manage would be redress within the same category by way of exposure of perpetrators, suspending corruptors from working in the kinds of organization that made their corruption possible, deregistering them if appropriate, jailing them if their crime justifies it, and insisting on restitutive social service until the loss has been "worked off." Theories of punishment have been comprehensively reviewed many times.[78–81]

Punishment needs to match the degree of responsibility. Active corruptors deserve what the law considers appropriate, and should also be responsible for restitution of material and social loss. Laissez-faire fellow travelers are guilty by consent, and should also be committed to appropriate public service to work off their debts. This regime may be logical, but it suffers from a major flaw. There is plenty of evidence to suggest that the kinds of people who practice corruption are unlikely to benefit from programs of rehabilitation and education, working out their debts by repaying with time and some form of humbling service.

Compensating victims is likely always to be unsatisfactory. The very act of being deceived is humiliating to victims, and is likely to leave long-term memories and persistent distrust. This applies to those who have been defrauded and to the innocent colleagues of active corruptors. They may benefit in various ways from material compensation, and from the exposure and punishment of perpetrators. They may benefit from the social recompense imposed on corruptors, either directly or indirectly. But they are unlikely to be convinced by the sort of penitential exercise proffered by people who, almost by definition, are unable to empathize with others.[82]

There remain, also, no satisfactory answers to the subtle corruptions that develop when systems interact. The well-documented, but always contestable, biases and conflicts of interest in the areas common to medicine and the pharmaceutical industry have proven hard to access, define, and assess. Some bioethicists[57,83–87] feel that perversions of the medical system are every bit as serious as the communicative and qualitative breakdown identified in medical practice by movements such as person-centered medicine.[88–90] They claim that the medical system has been corrupted by financial and technical structures and values, at the expense of medicine's earlier devotion to caring for the ill. Whether this is true or not, there is little doubt that medical values and practices have been profoundly changed by the technological and financial imperatives that accompany the colonization of the clinic by pharmaceutical and equipment industries.[91] There seems little hope for radical change, because this is the face of progress.[92,93] Awareness is only the beginning, but it is necessary to be aware of the nature and components of a phenomenon that is both real and threatening. Otherwise, medicine may encounter unexpected consequences that will be hard to undo, and that may ultimately be destructive of the remarkably high level of trust still given to it by the public.

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