

# The Commodification of Academic Research

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## CHAPTER 11

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### Coercion, Corruption, and Politics in the Commodification of Academic Science

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#### 1. Introduction

COMMERCIAL VENTURES BETWEEN university researchers and private companies have become a matter of widespread debate. Advocates of such ventures usually present university-industry partnerships as benefiting the general public. They promise new technologies and consumer products that will stimulate the economy, and thus eventually benefit everyone. Even a prominent critic of commercialization notes that market forces have caused universities “to become less stodgy and elitist and more vigorous in their efforts to aid economic growth” (Bok 2003, 15–16). Indeed, some recent studies of scientific practice reveal an emerging “spiral model of innovation,” in which laboratory research and its commercial applications mutually inform each other (Etzkowitz and Webster 1995, 481; Nowotny et al. 2001).

Unfortunately, much evidence suggests that university-industry partnerships fail to generate widespread public benefits.<sup>1</sup> They tend to focus on innovations

that either concern very few people or lead to trivial consumer products (Greenberg 2007; Slaughter and Rhoades 2004, 332). Other frequently voiced concerns include both direct and indirect pressures on faculty to design research projects in light of their commercial potential, patent restrictions on open scientific communication, the use of publicly funded research to generate private profits, private consulting by university faculty on matters in which they have a personal financial stake, and the commercialization of educational materials (Krimsky 2003; Slaughter and Rhoades 2004; Washburn 2005). These and other concerns are sometimes captured under the rubric of “commodified” research.

What does it mean for academic research to become a commodity? As I use the term here, drawing on Margaret Radin (1996), commodification refers to the social process whereby a person or thing becomes understood as a “mere thing,” as entirely separate from the people and relations that give it meaning. Commodities are seen as commensurable with each other through the medium of money. When academic research becomes a commodity, it loses any explicit association with either particular scientific communities or society as a whole, and it becomes reduced to a possession of individual agents that can be exchanged on the market.

Objections to commodification can be usefully grouped into two basic categories: coercion and corruption (Sandel 1998, 94ff). Coercion arguments focus on how money, power, and other resources are socially distributed, and whether uneven distribution enables some people to exercise undue power over others. Corruption arguments focus on what money can buy, and whether some things should not be for sale (Walzer 1983). Coercion arguments are motivated by the concern that commodification may limit the freedom of scientists, students, and others associated with academic research, in particular by hindering open scientific communication or putting pressure on scientists to commercialize their research. Corruption arguments focus on the threat that commodification poses for the shared meanings associated with particular goods or spheres of life, including scientific knowledge, public education, and democratic citizenship. The coercion and corruption arguments are frequently intertwined, but it is helpful to consider them separately. Both sorts of arguments raise valid concerns, a few of which I briefly outline in the first half of this chapter. Ultimately, however, neither argument captures the full impact of commodification on the distinctive institutional features of academic science. The second half of the chapter considers an alternative way of thinking about the commodification of academic research, associated with a republican view of university governance as a way to reach collective decisions regarding the economic dimensions of academic research.

## 2. Commodification as Coercion

The coercion argument against commodification focuses on the way unequal distributions of power and wealth cause economic markets to affect people in different ways. Those with less power are more likely to be forced to buy and sell things they would rather not. Proposals to establish regulated markets in human organs, for example, may create markets that are formally voluntary, but most of those who choose to sell a kidney will probably be relatively poor, and those who purchase one relatively rich. Similar concerns surround the growing market in human eggs for use in both assisted reproduction and stem cell research. The U.S. National Academies recommend against payment, and several U.S. states are moving to ban or restrict payment for human eggs.<sup>2</sup> The problem is not only that a market in human eggs or organs may effectively create a transfer program of body parts from the poor to the rich. It is that those who sell their body parts may face strong economic, social, and psychological pressures to engage in market exchanges to which, for whatever reason, they are opposed—or would be opposed, if they had the resources to fully consider their options. Such concerns need not rely on exaggerated claims regarding the “false consciousness” of disadvantaged groups. They merely assert quite plausibly that people’s perceived options are shaped by their social context. The same might be said of academic scientists who reluctantly enter into commercial arrangements with private corporations, either in response to direct instructions from department chairs or deans, or due to more subtle modes of power that shape the types of research questions they deem worth pursuing (Kleinman 2003; Kleinman, this volume). At the same time, however, as I discuss briefly in what follows, bans on commodification may hurt potential sellers more than buyers, by depriving them of a source of much needed money.

It seems clear that, in many respects, the commodification of academic research has been a response to the coercive effects of markets. Since the 1970s, repeated crises in public budgets for education and research have created new pressures on universities to replace declining government funding with increased student tuition and private research contracts (Bok 2003).<sup>3</sup> These crises have also pushed universities to look beyond the academy for managers with training in business and finance. It is ironic, therefore, that the coercive effects of commodification have the potential to destroy rather than create markets in academic research. People who exchange their money, labor, or knowledge out of desperation and necessity, with no real capacity to bargain, are not, strictly speaking, engaged in “free” market activity (Walzer 1983, 121). As universities become more deeply involved with industry, and public budgets become more constrained, the idea

that universities enter into freely chosen collaborations with industry becomes less plausible.

The underlying ideal of the coercion argument is the liberal theory of consent. Commodification is seen as a problem to the extent it threatens individual freedom. From this perspective, if scientists freely consent to the commodification of their research, there is no coercion and, hence, little cause for concern. Indeed, the coercion argument often presupposes that scientists have a "right to research" that entitles them to contract with whomever they choose (Brown and Guston 2009). At the most general level, the coercion argument is framed in quantitative terms: the key question is whether there is a balance of power between the parties to the exchange. Like the "checks and balances" of liberal constitutionalism, the imagery of coercion arguments tends to be mechanistic. Coercion occurs where there is an imbalance of power, such that scientists are forced to market their research, women their eggs, or universities their faculty and facilities.

The coercion argument leads to a distinctive set of proposed reforms. Proponents of this view suggest that the coercive potential of commodification can be counteracted by regulations that both shield scientists from market pressures and establish fair bargaining conditions for them to participate in market exchanges in a truly voluntary manner. David Resnik (2007) thus outlines elements of a regulated market economy for science. The aim is to "establish an appropriate balance" between scientific norms of openness, public ownership, and public interest, on the one hand, and commercial norms of secrecy, private ownership, and private interest, on the other. To realize this aim, societies need to "develop standards and regulations for managing and monitoring financial incentives and pressures that affect science." The various public and private organizations involved in science should "adopt rules, policies, and guidelines for regulating the knowledge economy in order to promote economic fairness and to protect moral, social, political, and scientific values" (Resnik 2007, 33, 34).<sup>4</sup> Although such measures for establishing fair background conditions for the commercialization of research may limit coercion, they do little to respond to those who see the commodification of academic research as inherently objectionable on moral, political, and/or epistemic grounds. This concern leads to the corruption argument.

### 3. Commodification as Corruption

Another line of criticism sees commodification as a form of corruption. From this perspective, the commodification of academic research violates the distinctive ideals, habits of mind, and institutional purposes traditionally associated with

science. Commodification corrupts science, according to this view, because exchanging scientific knowledge for money threatens the moral dignity, social purpose, and/or epistemic quality of science. Just as prostitution denigrates sex and bribery denigrates government, commercialized research denigrates science. Sheldon Krinsky echoes this perspective when he frames the question of commodification in terms of "whether universities should be turned into the instruments of wealth rather than protected enclaves whose primary roles are as sources of enlightenment" (2003, 2). He suggests that choosing the former option amounts to abandoning the ideals of science. "And what would the soul of academia be without the pure virtue of the pursuit of knowledge and the protection of that pursuit from commodification and distortion by the marketplace?" (2003, 52). Another writer sees the corporatization of the university as analogous to the 1956 science fiction horror film *Invasion of the Body Snatchers*, "a story of alien creatures who steal the soul and personality of individuals while retaining the identical and pleasant and amiable exterior" (Steck 2003, 68).

Exchanging scientific research for money, according to this view, violates a boundary between two spheres of human activity that should be kept distinct. The problem is not merely that scientists face various commercial pressures; it is that money and science are incommensurable goods. In this respect, corruption results not only from selling something that should not be sold but also from bartering incommensurable goods. Selling a baby is wrong, but it is just as wrong to trade a baby for a car (Cohen 2003, 696). Different goods are associated with different spheres of activity, and justice requires that they be distributed according to different principles (Walzer 1983). Just as political office should not be allocated on the basis of friendship, the appointment, promotion, and funding of academic researchers should be determined by genuine scientific merit and not by their ability to acquire corporate research grants or to excel at scientifically trivial but commercially lucrative projects. Nor, for that matter, should admission to a university be determined by a student's athletic ability (and the potential to attract sports fans and corporate donors), which has become a prevalent form of academic commodification in the United States (Bok 2003, chap. 3).

From this perspective, regulating the commercialization of research to ensure that all exchanges are voluntary does little to remedy the fundamental problem. The problem with commodification is not merely that those with more money and power have more access to and control over the process and products of science. Rather, the problem is that the process and products of science should be governed by principles appropriate to science and not to some other sphere of human activity, such as commerce or politics. When things acquire monetary value, they become commensurable with other things and thus lose their uniqueness.

"When something is done for money, it is done for a different purpose than it otherwise is, and the change in purpose can change the nature of the action" (Andre 1992, 44, 45). If the coercion argument frames its critique in quantitative terms, as a matter of balancing the forces of public science and private commerce, the corruption argument focuses on the distinctive qualities of different social goods.

Whereas the coercion argument leads to regulations that ensure fair terms of exchange, the corruption argument generally leads to legal, institutional, or cultural bans on certain kinds of exchanges. Those opposed to such bans frequently argue that setting boundaries on markets will simply create a black market. And indeed, there are thriving black and gray markets in many goods currently banned from the open market: narcotics, stolen art, human organs, babies, wives, and prostitutes, to name a few (Ertman and Williams 2005). The common and, I think, largely persuasive response, however, is that the existence of murderers is not an argument for legalizing murder, and societies define themselves in part by setting moral and legal boundaries on market activity. A society where everything were for sale, a society of "universal commodification," would be a totalitarian society, pervaded by a single logic (Walzer 1983, 119–20; Radin 1996, 2–6). Of course, when criminalization of morally objectionable market exchanges (e.g., prostitution, recreational drugs) threatens *other* values of a particular society (e.g., public safety, assistance for the needy), legalization may be justified. But the reason for legalization is to uphold the society's values, not merely to prevent a black market.

A more important challenge to the corruption argument is that it depends on collective agreement on the meaning of social goods, which in contemporary societies is often lacking (Sandel 1998, 106–7). With regard to science, the corruption argument has often relied on an idealized image of science as a uniquely objective, authoritative, and value-free form of knowledge (see Proctor 1991). That image is becoming increasingly untenable, however, as both scholars and laypeople adopt the view that science is inevitably shaped to some extent by economic, social, and political factors. Although philosophers have long sought to specify "demarkation criteria" that would distinguish scientific from nonscientific modes of thought and activity, none of these efforts has proven successful. Philosophers have not been able to reach consensus on the essential nature of science and what distinguishes it from nonscientific practices, institutions, or beliefs. Indeed, it seems impossible to establish a list of necessary and sufficient conditions for calling something "scientific." Many of the attributes typically associated with science can also be found in nonscientific activities, and no single list of attributes is shared by all the fields of study typically deemed part of science (Laudan 1996).

This does not mean, however, that there is nothing distinctive about science, nor that efforts to articulate what it is have lost importance. Indeed, the fact that science is shaped by social values and political decisions does not mean it lacks institutional specificity. As Dick Pels puts it, "the claim that science is social or political acquires its full significance precisely when it is *specified*: the scientific field is a field similar to others, and similarly subject to laws of capital formation and competition, but it is simultaneously a 'world apart' that obeys its own specific logic of functioning" (Pels 2003, 147; original italics). Pels conceives the specificity of science with reference to its "timescape." Laboratories provide a partially estranged, provisionally detached social setting from which to develop an autonomous perspective on reality (Pels 2003, 149). From this perspective, the autonomy of science does not rest on a philosophical commitment to value-freedom or particular methodological rules but rather on institutional features that slow things down and create the time required for research. This view of science highlights a feature of commodification not emphasized by either the coercion or corruption arguments: commodification speeds things up. Corporate sponsors, university administrators, patient advocacy groups, and the general public frequently pressure scientists to get new technologies and medical remedies to market as fast as possible. Such pressures, compounded by personal ambition, arguably pose a major threat to the institutional culture of university science.

There are other ways to conceive the distinctive qualities of scientific institutions that, like Pels's approach, do not rely on precise demarcation criteria. For example, some have understood science as a "gift economy" (Bollier 2002; Ziman 2002, 331; Hyde 1979, 78; Hagstrom 1965). For these authors, the reputational market of academic science is like the *potlatch* of certain indigenous cultures: a public ceremony in which the highest honors go to those who give away the most goods. Gift economies generate new wealth just like market economies, but the excess wealth remains in circulation within the community rather than being privatized as profit. In a related vein, Hans Radder's essay in this volume reconstructs Robert K. Merton's famous argument regarding the norms of science as itself a normative project, rather than a disinterested assessment of scientific practice. Merton's norms, from Radder's perspective, advance the normative project of generating community among scientists, guiding their work, and protecting them from undue interference from commerce or politics.

This is not the place to compare different conceptions of the institutional specificity of science, but it seems clear that such efforts capture something important about how science produces practical and authoritative knowledge. In this respect, they underwrite the corruption argument against the commodification

of academic research. Nonetheless, I want to mention three shortcomings of many such efforts, and by extension, of the corruption argument.

First, such efforts tend to focus on the institutional features of science, usually the natural sciences, rather than universities as a whole. There are many different kinds of universities today, of course, but most have important tasks other than research. Many universities provide some combination of vocational training, civic education, political advice, and community service. And all universities provide an institutional context in which students, faculty, staff, and administrators potentially engage in some sort of collective self-governance. Analyses of the appropriate relationship between science and commerce need to consider how scientific research relates to any given university's other goals.

Second, as Radin (1996) has argued, erecting a wall between market and non-market relations obscures both the economic dimensions of nonmarket relations and the moral dimensions of market relations. Although many scientists dislike the idea that economics shapes their work, "it is indisputable that someone, for some reason, has been picking up the tab" (Mirowski and Sent 2002, 1; see also Kleinman 2003, 35-44; Resnik 2007, 32-33). Science and other gift economies are usually intertwined with monetary economies. This point should not be understood as an attack on the integrity of science. When giving someone a gift, it is indeed "the thought that counts," but expressing that thought by purchasing a gift with money need not denigrate the thought. Similarly, most people must work for pay, and yet most hope to have jobs they would enjoy doing for free. And anyone who takes pride in "a job well done" does the job in a manner that is not fully captured by its market price (Radin 1996, 102-14; Waldron 1995, 165). Rather than simply banning certain things from being sold, society might resist universal commodification by finding ways of protecting and promoting the nonmarket dimensions of things exchanged on the market. From this perspective, the point of regulation is not simply to ensure free choice, as the coercion argument suggests, but to reflect societal understandings about the meaning of particular activities. For me to sell my teaching services or research products does not by itself make them into commodities. They become commodities only when the nonmarket dimensions of those exchanges are suppressed (Cohen 2003).<sup>5</sup> The challenge, therefore, is not merely to protect or expand gift economies, because that effectively abandons everything else to naked market forces. Rather, the larger challenge is to find ways of structuring market transactions such that they preserve the non-market dimensions of those transactions.

Third, philosophers, sociologists, and other scholars concerned about commodification cannot, by themselves, establish societal consensus on the meanings

of social goods, including academic research. They also lack political authority to dictate which exchanges should be blocked or allowed. Scholarly arguments regarding the appropriate relationship between science and commerce, therefore, are best understood as contributions to processes of public deliberation and decision making. They should not be used to shortcut such processes. This means that efforts to prevent academic research from being reduced to a commodity should not confine themselves to establishing codes of ethics, which tend to focus on individual behavior.<sup>6</sup> Instead, such efforts need to attend to the distinctive features of academic institutions, including their internal processes of deliberation and decision making. Assistance in this endeavor may be found in the republican tradition of political thought, which is distinguished in part by its emphasis on the institutional features of public life.

#### 4. Republicanism and University Governance

Steve Fuller (2000, 2002) draws on republican political theory to generate proposals for the governance of contemporary science.<sup>7</sup> Where liberals focus on the "negative liberty" of noninterference, and communitarians on the "positive liberty" of self-mastery and civic participation, republicans see freedom in nondomination, that is, not being subject to arbitrary authority (Pettit 1997, 21ff, 51ff). A republican approach to the governance of science would thus focus not on commercial interference with academic research, as such, but on *arbitrary* interference, and not solely on actual interference but on the *power* to interfere in an arbitrary manner. For republicans, regardless of whether or not an act or decision constitutes interference with someone, it is considered arbitrary whenever "it is chosen or rejected without reference to the interests, or the opinions, of those affected" (Pettit 1997, 55, 63ff). So where liberals generally seek to minimize all societal restrictions on individual choice, republicans argue that as long as restrictions take account of citizens' ideas and interests, and remain open to effective public challenge, they are a necessary means of protecting citizens from domination by both government and society. From a republican perspective, regulation may cause more interference than it prevents, as long as it reduces people's subjection to arbitrary power (Pettit 2006, 145-46). In the case of academic research, republicanism highlights the possibility that corporations have sufficient power to impose terms of exchange unresponsive to faculty interests and concerns.

Against the "Platonic" republicanism of Michael Polanyi's "Republic of Science" (1962), Fuller aligns his version of republicanism with Karl Popper's open

society, arguing that republicanism's central ideal is public deliberation, protected by the "right to be wrong" (Fuller 2000, 7, 13; Fuller 2002, 203–11).<sup>8</sup> Fuller argues that science "has failed to apply the democratic spirit to itself," which is that of an "experimenting society" (2000, 135). He goes on to propose various institutional means of "constituting science as a democratic polity" (2000, 146–51). The basic goal of these measures is to equalize power among scientists and between scientists and lay citizens. Equalizing power promises to facilitate open deliberation and the free exchange of ideas. With regard to universities, Fuller suggests various ways to renew their corporate identity, equalize power between faculty and students, and assert independence from both nonacademic business interests and specialized disciplinary interests (Fuller 2002, 216–25).

Fuller's version of republicanism seems similar to what John Rawls (1993) calls a "comprehensive doctrine," a set of values and beliefs applicable to all areas of social life. That is, Fuller does not specify the type of democratization or the sort of republicanism appropriate to science policy making, university governance, and the polity as a whole, respectively. Fuller thus writes of the university, not as an institution *in* a republic, but as "the ultimate republican institution," and he seems to favor reviving the medieval system of "checks and balances" that equalized power (to some extent) between faculty and students (Fuller 2002, 216–20).<sup>9</sup>

Although democratizing university governance is a worthwhile goal, it should be considered in light of the distinctive institutional purposes of academic science, and of universities more generally, as described previously (see Thompson 1972, 159–60). By apparently not recognizing anything distinctive about the pursuit of republican principles within the specific institutional context of universities, Fuller echoes the coercion argument, which treats all coercion the same, regardless of where it occurs. The corruption argument, in contrast, acknowledges that different spheres of activity, and hence different associations centered around those spheres, have different social meanings and purposes, as well as different incentive structures.

To put the point somewhat differently, although every association in a democracy should respect certain basic human rights, not every association needs to be organized democratically (Rawls 1993, 40–43, 146n13; Rosenblum 1998, 56). This is true not merely for practical reasons, nor only for reasons of abstract right, but because democracy may benefit from associations that are nondemocratic or only partially democratic. Highly exclusive associations, including Marxist, feminist, and black separatist associations, for example, have been instrumental in increasing the inclusion of their constituencies in mainstream politics (Kohn 2002, 291). Moreover, different kinds of associations have different educational effects

on those who participate in the association, as well as different effects on public discourse and public decision making. As a result, tradeoffs between different associational effects are inevitable (Warren 2001, 60–93, 142–205). A hierarchical association that represents its members primarily in a trustee sense, for example, requiring little input from its members, like most interest groups, will not foster its members' political skills and sense of political efficacy as much as one that represents in the delegate sense, requiring its members' active participation. Similarly, associations that cultivate political skills through internal dialogue and debate, such as universities, often lack a unified position on controversial public issues, and thus, may fail to effectively represent their members' views in the public sphere.<sup>10</sup> Because no single association can achieve every effect to an equal degree, it is important that citizens have access to a range of different types of associations. This point raises the question of what specific institutional features of universities are most threatened by commodification, and what the most promising institutional response to such threats might be.

Although many associations have a single dominant "constitutive good," universities have multiple constitutive goods, leading to enduring conflicts over their purposes. Generally speaking, as suggested previously, universities provide some combination of vocational goods, civic goods, and scholarly or scientific goods, with different universities weighing these goods very differently. In the United States—from Thomas Jefferson's founding of the country's first public university, the University of Virginia, to the Morrill Act of 1862, which created the system of land-grant colleges focused on agriculture and engineering—public universities long framed the scholarly and vocational dimensions of university education as contributions to the civic dimension (Lustig 2005, 23–24). That began to change as early as the late nineteenth century, however, when Progressive Era fascination with expert administration, and the emergence of academic disciplinary organizations, led to an increase in the role of business and science in university priority setting that has continued ever since.

In recent years many scholars and activists have called for a reinvigoration of the university's civic and educational goals. This requires, among other things, conceiving of academic freedom and the autonomy of science in public rather than only private terms. Conceived in a liberal mode, along the lines of the coercion argument, academic freedom is a private right that guarantees protection against outside intrusion. This appears to be the orientation of most university faculty, who tend to view participation in university governance as a burden not linked to their professional identity. Conceived in a republican mode, in contrast, academic freedom is "a collective right to self-governance" (Lustig 2005, 26, 40–41).

Put differently, the private autonomy of university faculty depends on their public autonomy of collective self-governance (see Habermas 1996, 84–104, 313–14). From this perspective, university faculty should conceive of their professions not merely in terms of their particular research programs, departments, or disciplines. They should understand “that public action is necessary to their identity as professionals, and understand that their calling is fundamentally collective in its character” (Lustig 2005, 45).<sup>11</sup> Derek Bok articulates a similar view when he states that engaging faculty in university governance is “the principal challenge” facing universities seeking to benefit from the commercial marketplace without sacrificing academic integrity (Bok 2003, 189).

To be sure, many faculty governance bodies are inefficient and lack relevant competence. And many university faculty have little time or interest to participate. But the situation is not improved by turning over decision making to trustees and administrators. The latter are often appointed, not for their appreciation of the university’s mission, but for their managerial expertise or ability to attract wealthy donors, or sometimes merely to reward political supporters. It is thus not surprising that administrative efforts to foster collaboration with industry have often led to hasty profit-seeking ventures with few long-term benefits (Bok 2003, 192).

One possible response is to require that all university administrators have previous experience as faculty members. The idea would be to ensure that administrators have a sufficient commitment to academic values (Duderstadt 2004, 151). Although this approach is often presented as a “realistic” alternative to directly engaging faculty in decision making on commercial ventures, it relies on considerable idealism regarding the persistence of academic values among those who have left the classroom behind for administrative careers. Indeed, it seems that “universities will do a better job of upholding essential values if faculty members help design and oversee all profit-making or commercial activities that affect the academic life of the university” (Bok 2003, 193). The current trend toward dual-track modes of governance—with faculty relegated to academic hiring, promotion, and curricular decisions and administrators in charge of budgetary matters—does not offer faculty, students, and staff sufficient opportunity to shape decisions regarding university-industry partnerships. In areas where faculty have professional interests but may lack relevant expertise (e.g., funding priorities), they might be given increased advisory authority. Such authority might be linked with accountability requirements aimed at preventing faculty governance bodies from becoming irrelevant debating societies (cf. Duderstadt 2004, 148–50). A republican approach to university governance fosters widespread participation, not for its own sake,

but as a means of holding university governance bodies accountable for promoting the distinctive aims of their particular institution.

In sum, republicanism suggests that the distinctive features of academic institutions include not only the production of scientific knowledge, as proponents of the corruption argument tend to assume, but the provision of knowledge, education, and other social goods in a context of collective self-governance. The republican perspective on commodification is not merely an abstract ideal, but captures key elements of the efforts by some universities to regulate university-industry partnerships. Greenberg thus notes that, in contrast to ten years ago, recent university-industry partnerships face “public and academic scrutiny and the specter of embarrassment or disgrace for ethical shortcomings.” Such scrutiny generates “academic insistence on shared governance over use of industrial money; quick, if not immediate, publication of the results; and adherence to academe’s concept of the rules of the game” (Greenberg 2007, 48; see also 283–85). From the republican perspective, collective self-governance is an intrinsic feature of the institutional purpose of universities, and efforts to protect academic research against corruption by market forces should take this feature into account. The corruption at issue is not only the corruption of research but also of academic self-governance.

This republican perspective on the corruption argument raises a dilemma: What if faculty governance bodies decide to allow university-industry partnerships that undermine the integrity of faculty research? What if faculty collectively fail to promote their long-term collective interests? Conversely, why not impose administrative or legal bans on problematic entrepreneurial endeavors, regardless of what faculty say, thus preventing faculty from undermining their collective purpose? These questions highlight a dilemma that Radin (1996, 123–30) calls the double bind: compromising ideals may delay the realization of an ideally just society, but refusing to compromise ideals may prevent one from pursuing those ideals at all. Allowing the sale of body parts may create a new means of exploiting the poor, but a ban may be an elite luxury that deprives the poor of both income and personal autonomy. By the same token, university-industry partnerships might provide much needed funds for faculty research, and yet also threaten the institutional norms that make research possible. Similarly, administrative or legal bans on university-industry partnerships might restrict faculty self-governance, but not doing so might allow faculty to undermine the integrity of their own profession.

Although Radin does not discuss university-industry partnerships, her analysis suggests that such dilemmas can only be resolved on a case-by-case basis. There is no philosophical answer to the question of when the benefits of university-industry

partnerships outweigh the costs. Her analysis also suggests, however, that efforts to respond to such dilemmas should take account of how the dilemma arose in the first place (Radin 1996, 46–53). Even if critics of commodification persuade decision-making bodies to ban problematic university-industry ventures, such bans would not address the underlying social and political conditions that create incentives for scientists to pursue such ventures. Just as preventing poor people from selling their kidneys does nothing to alleviate their poverty, banning university-industry partnerships does not address the crisis in public funding and confidence that many universities now face.

A satisfying response to this dilemma is beyond the bounds of this chapter. It is not inconceivable, however, that profits from university-industry partnerships, undertaken with extensive faculty input, could be directed into efforts to determine, articulate, and institutionalize a particular university's purpose. With a clear sense of the university's purpose, profits from university-industry partnerships could be creatively employed to make such partnerships economically unnecessary, and thus, more fully a matter of choice. Scholars who then still choose to work with industry could do so on terms that preserve academic values. The corruption argument's emphasis on the social meaning of academic activities would serve the coercion argument's emphasis on academic freedom.

## 5. Conclusion

The coercion and corruption arguments each capture important dimensions of commodification, but taken by themselves, their responses seem inadequate. Efforts to mitigate the risk of coercion by establishing fair terms of trade easily neglect the social meanings at stake in exchanging, say, the collective work of a university research team for a corporate contract that provides large monetary rewards but requires keeping results secret from other scientists, or more subtly, robs scientists of the sense of civic purpose traditionally associated with academic work. At the same time, however, simply banning certain exchanges based on the presumed meaning of social goods neglects the difficulty of establishing consensus on such meanings, as well as the way meanings change over time.

Additionally, conceiving the commodification of academic research in terms of a simple opposition between "science" and "commerce" neglects the specific risks that commodification poses for the many features of university life that have little to do with research. It also neglects the possibility of conceptualizing academic freedom in terms of public rather than private autonomy, such that the re-

lationship between science and commerce becomes a matter for deliberation and debate among all members of the university. It seems clear that academic norms are shifting, and that academic scientists are becoming increasingly comfortable with the commercialization of their research (Etzkowitz and Webster 1995). But unless university faculty have effective means of deliberating about and, if they deem it necessary, blocking or shaping such changes, they will not know whether their newfound comfort is justified.

## NOTES

For helpful comments many thanks to Marvin Brown, Jeff Lustig, Hans Radder, Jan van der Stoep, and the participants at the June 2007 workshop on the commodification of academic research at Vrije Universiteit Amsterdam.

1. It has been over twenty-five years since the Bayh-Dole Act of 1980 facilitated increased academic-industrial collaborations in the United States. The economic effects are difficult to measure, but there seems to be little evidence that the increase in university patenting and licensing has had the intended effect of increasing universities' overall contribution to economic growth beyond what it would be without the incentive of private profit (Sampat 2006). Very few of the several hundred technology transfer offices established on American campuses have actually made a profit, and many have lost money (Slaughter and Rhoades 2004, 330–31; Washburn 2005, 230; Greenberg 2007, 62–81). Industry's share of total university R&D funding is disputed; according to National Science Foundation statistics, it reached only 7.4 percent in 1999 and has remained below that ever since, although it is considerably higher at some universities (Greenberg 2007, chap. 2).

2. Information available from the Center for Genetics and Society Web site: <http://www.genetics-and-society.org>. For an argument in favor of regulated commercialization of human eggs, see Resnik 2001.

3. Mirowski and Sent (2002, 26–32) note an undercurrent of xenophobia in declining public support for higher education in the United States, due to the perception that foreign nationals are being trained at U.S. taxpayer expense, and then going back to home countries and competing with U.S. workers. Moreover, the end of the cold war led to a large reduction in defense R&D, and other areas have not made up the difference.

4. Resnik is also concerned about the corrupting effects of commercialization on academic norms, but his focus seems to be on regulating rather than banning the commodification of academic research. He writes, "The most prudent and realistic response to this situation is to try to mitigate the corrupting effects of private interests and to establish policies and procedures to safeguard the norms of science" (Resnik 2007, 33). For a similar endorsement of a "balance" between private and public claims on research, see Anderson (2001, 237–43).

5. This line of thinking suggests one way to get beyond what Steve Fuller (2002, 227) calls the "Myth of the Modes": the assumption that contract-based research ("mode-2") and what is taken to be the traditional role of the university as pure science ("mode-1") are the only available possibilities.



6. A similar point appears in Biddle (2007, 27, 30) and Radder (this volume, chap. 10). Indeed, because processes of exchange do not simply reflect the meanings of social goods but often transform those meanings, people may have to try out new forms of exchange before they can reach agreement on what sorts of exchanges to allow (Waldron 1995, 158–59).

7. Parts of this section draw on Brown (2009, chap. 9).

8. By reading republicanism through Popper's critical rationalism, and despite the nondeliberative elements of some of his reform proposals, Fuller arguably overemphasizes the deliberative component of republicanism (Radder 2000, 523).

9. As Fuller rightly notes, students today exercise little or no influence over the university curriculum, whereas in medieval universities, and in Germany until the early twentieth century, students influenced the curriculum indirectly by the fees they paid to lecturers (Fuller 2002, 217). Fuller does not say to what extent he thinks such "checks and balances" might be reintroduced today.

10. Universities also have difficulty campaigning for their own interests in the public sphere, because their legitimacy is taken to rest on remaining politically neutral. As Warren puts it, "their public neutrality is a studied strategy that enables them to provide institutional shelter for multiple public sphere activities built around classroom debates, conferences and speakers, journals and newspapers, student and faculty associations, and research" (Warren 2001, 120). Holding a "vested" position in society, universities are reluctant to take strong public stands for fear of losing their aura of neutrality. They tend instead to lobby legislatures and businesses behind the scenes (Warren 2001, 169–70).

11. In its 1940 Statement of Principles on Academic Freedom and Tenure, the American Association of University Professors asserted that university faculty are "entitled to full freedom in research and in the publication of the results, subject to the adequate performance of their other academic duties," and that "college and university teachers are citizens, members of a learned profession, and officers of an educational institution." Available at <http://www.aaup.org/AAUP/pubsres/policydocs/contents/1940statement.htm>.

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## CHAPTER 12

# Capitalism and Knowledge

## THE UNIVERSITY BETWEEN COMMODIFICATION AND ENTREPRENEURSHIP

Steve Fuller

CRITIQUES OF CAPITALISM come in two kinds. I shall begin by presenting them in the spirit in which they are normally discussed. One kind attacks capitalism *in practice*. It is associated with Joseph Schumpeter, who targeted the monopolization of capital for stifling the entrepreneurial spirit, capitalism's very soul. The other critique is older and goes deeper, attacking capitalism *in principle*. It is associated with Karl Marx, who targeted the commodification of labor for alienating us from our common humanity. Whereas Schumpeter was worried about capitalism's practical tendency to concentrate wealth and thereby arrest the economy's natural dynamism, Marx objected to capitalism's principled tendency to evaporate the solid core of our "species being" through the dynamics of the price mechanism.

I believe that both critiques continue to have merit, though to a large extent they cut against each other: after all, Schumpeter's entrepreneurs and Marx's commodifiers are equally interested in the fact that people will pay for things they had not paid for before. The difference lies simply in the positive and the negative spin, respectively, that is given to this moment. Here Marx appears clearly as the