4.4 CONFLICTS OF PROFESSIONAL RESPONSIBILITY: EMPLOYEE LOYALTY AND WHISTLE-BLOWING *

What exactly is employee loyalty? Do employees and employers have a special obligation of loyalty to each other? Should loyalty to one's employer ever preclude an employee's "blowing the whistle" in critical situations? In which cases can whistle-blowing be justified? Each of these questions is examined in this section.

4.4.1 Do Employees Have an Obligation of Loyalty to Employers?

Many ethicists believe that while loyalty may not be an obligation that is absolute, we nonetheless have a prima facie obligation of loyalty in employment contexts. In other words, all things being equal, an employee should be loyal to his or her employer and vice versa. What is the origin of the concept of employee loyalty in an engineering context? Carl Mitcham (1997) points out that historically, engineers believed that they had a basic obligation to be loyal to institutional authority. Originally, an engineer was a soldier who designed military fortifications or operated engines of war, such as catapults. Mitcham notes that early civil engineering could be viewed as peacetime military engineering in which engineers were duty-bound to obey their employer, which was often some branch of the government. So it may well be the case that this historical precedent has contributed to the sense of loyalty many engineers currently have for their institutions and employers.

Does employee loyalty still make sense in the context of a large computer corporation? Ronald Duska (1991) argues that in employment contexts, loyalty only arises in special relationships that are based on a notion he calls "mutual enrichment." So in relationships in which parties are pursuing their self-interests, the notion of loyalty does not apply. Duska believes that employer-employee relationships—at least where corporations are concerned—are based on self-interest and not on mutual enrichment; from this, Duska concludes that employees do not necessarily have an obligation of loyalty to their corporate employers. He notes that corporations would like their employees to believe that employees do have such an obligation, since the belief serves the interests of the corporation.

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John Ladd (1991) also believes that for corporations, loyalty can only be in one direction. He argues that a corporation cannot be loyal to an employee in the same sense that employees are supposed to be loyal to the corporation, because the corporation's goals must be competitively linked to the benefits employees bring to the corporation. A corporation can be good to employees only because it is good for business, that is, it is in the company's own self-interest. So, like Duska, Ladd cites corporate self-interest as an obstacle to the balanced employer-employee relationship required for mutual loyalty.

In one sense, Duska's and Ladd's arguments seem plausible. Consider, for instance, that corporations often go through downsizing phases in which loyal employees who have served a company faithfully for several years are dismissed as part of restructuring plans. On the other hand, some employers have shown what would certainly appear to be a strong sense of loyalty to employees. For example, consider a case in which an employer continues to keep an employee on the payroll even though that employee has a chronic illness that causes her to miss several months of work. Or consider a case in which several employees are kept on by a company despite the fact that their medical conditions have caused the corporation's health insurance costs to increase significantly, thereby reducing the company's overall earnings. Also consider a recent case involving the owner of Malden Mills, whose physical plant in Massachusetts was destroyed by fire. The mill's proprietor, Aaron Feurestein, could have been excused from any future obligations to his employees, and he could have chosen to rebuild his facility in a different state or country where employees would work for lower wages. Instead, Feurestein continued to pay and provide benefits for his employees while a new facility was being built in Massachusetts. So there have been instances in which employers have been very loyal to their employees.

How should the notion of employee loyalty apply in computing contexts? Do computer professionals necessarily have an obligation to be loyal to their employers? A thorough examination of the arguments on both sides of this issue, unfortunately, would take us beyond the scope of this chapter, so we will assume that, all things being equal, computer professionals should be loyal to their employers.

However, sometimes an employee's obligation of loyalty can come into conflict with other obligations, such as those to society in general, especially where health and safety considerations are at stake. How are computer professionals supposed to balance their obligation of loyalty to an employer against their obligations of loyalty that lie elsewhere? For one thing, loyalty

should not viewed as something that an employee must give exclusively or blindly to one's employer. Instead, loyalty should be seen as an obligation that individuals have to society as a whole, especially where safety and health issues are at stake. Divided loyalties, of course, can result in serious conflicts for employees, and in certain cases the moral dilemmas they generate are so profound that an employee must determine whether to blow the whistle.

4.4,2 Whistle-blowing

What exactly is whistle-blowing? Consider two definitions: Norman Bowie (1982) defines whistle-blowing as "the act of an employee informing the public on the immoral or illegal behavior of an employee or supervisor." And Sisela Bok (1997) defines whistle-blowing as an act in which one "makes revelations meant to call attention to negligence, abuses, or dangers that threaten the public interest." From these two definitions, we see that whistle-blowing situations can arise not only in cases of overt wrongdoing (involving specific acts that are either illegal or immoral), but also in instances of negligence where one or more individuals have failed to act.

4.4.2.1 Determining When to Blow the Whistle

When should an employee blow the whistle? Consider a recent whistle-blowing incident in which Colleen Rowley, an FBI employee, came forth to describe how critical messages had failed to be sent up the Federal Bureau's chain of command in the days immediately preceding the tragic events of September 11, 2001. Was it appropriate for her to blow the whistle on her supervisor? Was she disloyal to her supervisor and her fellow employees in doing so?

Should individuals in positions of authority in corporations such as Enron and WorldCom have blown the corporate whistle about their illegal accounting practices, which were discovered in early 2002? One could argue that failing to blow the whistle in the Enron case resulted in thousands of people losing their retirement savings and, in some cases, their entire life savings.

There are, no doubt, cases where a decision to blow the whistle might have saved human lives. Consider, for example, the Space Shuttle *Challenger* disaster in January 1986, which resulted in the deaths of the seven crew members. Engineers who designed the space shuttle were aware of the safety risks in launching the shuttle in cooler temperatures. In fact, some engineers,

when learning the *Challenger* was scheduled for launch on a cool January morning, went to their supervisors to express their concerns. However, a decision was made to stick with the original launch date. Having received no support from their supervisors, should those engineers have gone directly to the press? Would whistle-blowing at that level have saved the lives of the *Challenger's* crew?

You may have heard of a now classic case involving the Ford Pinto (automobile), which had a gas tank that was unsafe. (The trial concluded in 1980.) The faulty design of the Pinto's gas tank caused the car to catch on fire when involved in certain collisions, even at lower speeds. In some cases these fires caused the deaths of Pinto drivers and passengers. Many of the engineers who worked on the Pinto's design were aware that its gas tank was Should the engineers involved have gone public? This particular incident has since sparked considerable debate about when it is appropriate for an employee to blow the whistle. unsafe, and they strongly recommended that the design be changed. However, a management decision was made at Ford to go ahead and produce Pintos with unsafe gas tanks.

In cases such as the *Challenger* and the Pinto, many believe that the engineers involved had a responsibility to blow the whistle on management. We next briefly examine two classic cases of whistle-blowing in a computing/engineering context: one that that occurred in the late 1960s/early 1970s, and another in the early 1980s.

WHISTLE-BLOWING CASE ILLUSTRATION I: BART

A now classic whistle-blowing incident that received considerable attention in the media in the early 1970s involved BART (Bay Area Rapid Transit) in California. Under development at BART was a new, computerized mass transit system, which was behind schedule, over budget, and arguably unsafe. Three engineers working on the project were concerned about the safety of the transit system's ATC (automatic train control) system. First, they went to their managers to express their concerns; getting no satisfaction at that level, the three engineers next took their concerns to the organization's board of directors; And, finally, after receiving no support from the board, the engineers decided to go to the press with their story. Shortly afterwards, they were fired.

Since the BART incident, whistle-blowing laws at both the federal and state levels have been passed. In addition to the federal Whistle-blower Protection Act of 1989, many states, such as Florida, have passed their own laws to protect whistle-blowers. However, not all states have done this; and the level of protection granted to whistle-blowers in states where legislation has been enacted varies considerably; many individuals feel that it is still too risky to go public with their concerns.

WHISTLE-BLOWING CASE ILLUSTRATION II: SDI

A United States military proposal called the Strategic Defense Initiative (SDI) was hotly debated during the early 1980s. SDI, which was also referred to as "Star Wars," was a missile defense system intended to provide a defense shield against incoming ballistic missiles. The Star Wars initiative, originally proposed by the Reagan administration, was controversial from the outset. Supporters of this initiative argued that SDI was necessary for national defense purposes. Critics, however, argued that the system was unreliable and posed a safety hazard.

David Parnas, a consultant on the Star Wars project, was paid \$1,000 per day for his expertise. However, shortly after he joined the SDI project team, Parnas became convinced that it was not possible to construct SDI software that could confidently be expected to work when needed. His argument for the inadequacy of SDI (Parnas, 1987) was based on three reasons:

- i. The specifications for the software could not be known with any confidence.
- ii. The software could not undergo realistic testing.
- iii. There would not be sufficient time during an attack to repair and reinstall failing software (no "real-time" debugging).

Parnas concluded that SDI could not be trusted, and he eventually went public with his position. Supporters of SDI accused Parnas of disloyalty and of acting out of his own self-interest. Parnas's defenders pointed out that Parnas walked away from a lucrative consulting contract. Did Parnas do the right thing? It is interesting to note that William Yurcik and David Doss (2002) believe that the arguments used by Parnas in the case of SDI also apply in the controversy involving the most recent national missile defense proposal put forth by the current Bush administration. Recent arguments advanced for and against NMD were briefly examined in Chapter 3.

4.4.2.2 Can Professional Codes Guide Engineers in Whistleblowing Decisions?

As noted above, legislation has been enacted at both the federal and state levels to protect employees who go public with certain kinds of information. We also noted that individual state laws vary considerably with the amount and kind of protection offered to whistle-blowers. It would seem appropriate to ask what measures the engineering and computing professions themselves have taken to protect whistle-blowers. Perhaps a more fundamental question is, What kind of guidance do the ethical codes adopted by engineering and computing professions provide members when they are confronted with specific dilemmas that could lead to a whistle-blowing decision? Sections 6.12 and 6.13 of SECEPP state that an engineer is obligated to

- express concerns to the people involved when significant violations of this Code are detected unless this is impossible, counterproductive, or dangerous,
- report significant violations of this Code to appropriate authorities when it is clear that consultation with people involved in these significant violations is impossible, counterproductive or dangerous.

Although guidelines such as these are useful, many believe that they are still too vague. It would be helpful if engineers had more straightforward criteria for determining when they are permitted, or perhaps even required, to blow the whistle.

4.4.2.3 When Is One Permitted/Required to Blow the Whistle? Richard De George (1981) has offered some specific conditions for when an engineer is (a) permitted to blow the whistle, and (b) obligated to do so. De George believes that engineers and other workers are permitted to go public with information about the safety of a product if the following conditions are met:

- 1. The harm that will be done by the product to the public is serious and considerable.
- 2. The engineers (or employees) have made their concerns known to their superiors.
- 3. The engineers (or employees) have received no satisfaction from their immediate supervisors and they have exhausted the channels available within the corporation, including going to the board of directors.

Although De George argues that one is permitted to blow the whistle when conditions 1 through 3 are satisfied, he does not believe that a person is yet required to do so. To have a strict moral obligation to blow the whistle, De George believes that two additional conditions must be satisfied:

- 4. The engineers (or employees) have documented evidence that would convince a reasonable, impartial observer that his/her view of the situation is correct and the company policy wrong.
- 5. There is strong evidence that making the information public will in fact prevent the threatened serious harm.

4.4.2.4 Evaluating De George's Criteria

Are De George's criteria for whistle-blowing reasonable? Gene James (1991) believes that De George's conditions that require one to blow the whistle are too lenient; James suggests that an individual has a moral obligation to blow the whistle when only DeGeorge's first three conditions are met. James argues that we have a prima facie obligation to "disclose organizational wrongdoing" that we are unable to prevent, and this can occur when De George's first three conditions are satisfied. According to James, the degree of the obligation depends on the extent to which we can foresee the severity and consequences of the wrongdoing.

James also worries that De George's model leaves us with no guidance when we are confronted with cases involving sexual harassment, violations of privacy, industrial espionage, and so forth. According to James, a key problem in De George's model is that "harm" is not adequately defined. For example, James suggests that harm can result in cases where violations of human rights, such as privacy and property, occur as well as in life-critical and safety-critical situations.

Kenneth Alpern (1991) also argues that De George's model lets engineers off too easily from their obligation to blow the whistle. However, Alpern bases his criticism of De George's model on different grounds from James's. Alpern believes that engineers must be willing to make greater sacrifices than others because engineers are in a greater position to do certain kinds of social harm. He believes that these obligations come from a fundamental principle of "ordinary morality"-viz., we must do no harm. So Alpern suggests that because engineers have a much greater obligation to society than ordinary individuals do to prevent harm, engineers can be required to blow the whistle in cases that other individuals would not.

It is important to note at this point that De George also has defenders who believe that whistle-blowing should only be required in extraordinary cases. John Ladd (1991), for example, believes that requiring engineers to blow the whistle in nonextraordinary cases (such as those described in De George's conditions 1-3) can be undesirable from an ethical point of view because it demands that these individuals be "moral heroes." Ladd agrees with De George that engineers should not have to be heroes or saints. Interestingly, De George has pointed out that just when one engineering myth—viz., ethics has no place in engineering— has finally been displaced, a new myth has surfaced: Engineers must be moral heroes.

4.4.3 An Alternative Strategy for Understanding Professional Responsibility

De George and Ladd seem correct in claiming that engineers should not be required to be moral heroes or saints. Yet, James and Alpern also seem to be correct in noting that engineers, because of the positions of responsibility they hold, should be expected to make greater sacrifices. Michael McFarland (1991) offers an interesting position in this debate; McFarland's position can be viewed as an alternative strategy and perhaps even as a compromise position. McFarland suggests that, collectively, engineers might be held to a higher standard of social responsibility than ordinary individuals, but that the onus of responsibility should not fall directly on engineers as individual engineers. Rather, it should be shouldered by engineers as members of the engineering profession.

McFarland's model is based on the assumption that, as moral agents, we have a prima facie obligation to come to the aid of others. In describing the nature of this obligation, he uses a nonengineering analogy involving the

Kitty Genovese case. (We briefly examined this incident in Chapter 2.) Recall that Genovese was murdered in New York City in 1965 as thirty-eight people in and around her apartment building watched or listened. It has since been argued that if some of Genovese's neighbors had banded together to come to her aid, she would have survived. The analogy for engineers that McFarland wishes to draw is that when no other sources of help are available, engineers should take responsibility by banding together. McFarland recognizes that if engineers act as individuals, they might not always have the ability to help. If they act collectively, however, they might be able to accomplish goals that would otherwise not be possible. Consider that if Genovese's neighbors had acted individually to intervene in her behalf, they might have put themselves at great risk. However, if they had acted collectively as a group, the neighbors could have overcome Genovese's assailant.

McFarland believes that unless an engineer's work is seen in a wider social context, that is, in its relation to society, an adequate account of the moral responsibility of engineers cannot be given. He also believes that unless engineers work collaboratively on ethical matters, they will not be able to meet all of their responsibilities. Thus McFarland's model encourages engineers to shift their thinking about responsibility issues from the level of individual responsibility (the microethical level), to responsibility at the broader level of the profession itself (the macroethical level).