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Whistleblowers: Risks and Skills

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Whistleblowing means speaking out in the public interest, and in bioweapons research there are many potential reasons for doing this. Perhaps a rogue researcher is pursuing dangerous experiments, or defensive research is being subtly oriented in offensive directions. Perhaps someone is releasing sensitive information without authorization; safety systems are being neglected; data are being forged; or the lab is pursuing research, under government instructions, that the government is denying publicly.

But is it wise to speak out? What are the risks? Consider these examples.

On 22 July 2005, Charles de Menezes, having just entered a train, was shot in the head seven times by London police. The police claimed he was wearing a bulky coat and had jumped over the ticket barrier and had run to the train. But Lana Vandenbergh, knew the police were lying. She worked for the Independent Police Complaints Commission and had access to evidence presented at the commission’s inquiry into the shooting. She leaked information to a television journalist – and then was subject to reprisals by the police. In a dawn raid on 21 September 2005, ten police officers broke down her door and arrested her. She was kept in a cell without access to a lawyer for eight hours and threatened by police that she could go to prison. She said: ‘It never crossed my mind that I would be treated as if I was a criminal for telling the truth. Unlike the police, I hadn’t killed an innocent person’ (Sanderson, 2006).

Teresa Chambers was chief of the US Park Police, like a municipal police department but with responsibility for national parks and monuments, mainly in the Washington, DC, area. It had over 600 officers. In the aftermath of 11 September 2001, the US Park Police were given additional anti-terrorism responsibilities, but no additional funding. Chambers spoke regularly to the media; it was part of her job. In December 2003, she spoke to a Washington Post journalist, saying anti-terrorism duties meant less services in regular park functions and asking for a greater budget to cover all the service’s tasks. Soon after, she was stripped of her gun and badge – a tremendous humiliation – and put on leave, and was later terminated (Katovsky, 2006, pp231–244).
Thomas Bittler and Ray Guagliardi worked for the US Transportation Security Administration (TSA). In 2003, while serving as training coordinators at Buffalo Niagara International Airport, they noticed numerous violations of regulations for inspecting baggage—for example, inadequate inspections following alarms. They reported their concerns to their boss, which led nowhere, so they wrote to the TSA headquarters. The result: they lost their jobs two months later, officially due to a staff restructure. However, "both men say TSA officials told them that they should never have complained. According to Bittler, one supervisor said: "If you people would just learn to shut your mouths, you would still have your jobs" (Scherer, 2004).

Richard Levernier was a nuclear security professional with 23 years’ experience. After 11 September 2001, he raised concerns with the Department of Energy about the vulnerability of US nuclear power plants to terrorist attack—pointing out that contingency plans assumed terrorists would both enter and exit facilities, therefore not addressing the risk of suicide attacks. His security clearance was withdrawn and he was relegated to a basement office coordinating departmental travel, his career in nuclear security terminated. Levernier went to the Office of Special Counsel (OSC), the body responsible for US federal whistleblower matters. Four years later, the OSC vindicated Levernier and ruled that the Department of Energy's retaliation was illegal—but the OSC had no power to restore Levernier's security clearance, which remained revoked (GAR, 2006).

Whistleblowing definitely is a risky business. These examples are just a sample of thousands of similar cases, although each one is far more complicated than can be conveyed by a short summary.

The typical whistleblower is a conscientious employee who believes the system works. When such an employee sees something wrong, their natural response is to report it. This is often a serious mistake.

Some of the common methods used against whistleblowers are ostracism, harassment, spreading of rumours, reprisals, punishment, threats, referral to psychiatrists, demotion, dismissal and blacklisting. To simply list these methods gives only a faint indication of the enormous damage that they do. Ostracism is a common experience: bosses shun the whistleblower and so do most other workers out of fear for their own jobs. Because validation by peers and supervisors is vital for a worker's self-esteem, ostracism is extremely hard to handle. Yet, this is just one of many reprisals commonly suffered by whistleblowers.

Many whistleblowers trusted the system. That, after all, is why they spoke out: they expected to be treated seriously, perhaps even lauded for their efforts. Indeed, many thought they were just doing their job: reporting a discrepancy in accounts, pointing out a conflict of interest, reporting on a hazard at work. They assumed people in authority would look into the matter, decide whether their concerns were valid and, if so, take appropriate action. Often they do not think of themselves as whistleblowers.

When, instead, they come under attack, this shakes them to the core of their being: because the system turns against them for being public spirited, their world is turned upside down and this is psychologically costly.

The damage to whistleblowers is huge legal bills: the economy: problems are common. Many and new career (Glazer and Glazer, 1995, 1998; De Marzi, 1996, 1997).

Reprisals against whistleblowers in sensitive areas, there is a greater risk of whistleblowing about policy national security issues. Being talking about problems exceptional caution and care.

In my reading about such discussions with hundreds of workers about every field: governments, police, military, church, and others. There seem to have no holders—but that does not mean the case, there are probably 1000s. The assumption is that suppression about the same rate as other whistleblowers is remarkable. It presents general insights are certainly relevant to exposing.

In attacking a whistleblower, a talented employee is damaged reputation costs. Reprisals against employees: speak out and leadership to managerial direction.

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world is turned upside down. The system turns out to be unfair rather than just, and this is psychologically devastating (Alford, 2001).

The damage to whistleblowers is extensive. Many lose their jobs and have huge legal bills: the economic impact is enormous. Health and relationship problems are common. Many are forced out of their field and are unable to begin a new career (Glazer and Glazer, 1989; Miceli and Nehr, 1992; Vinten, 1994; Hunt, 1995, 1998; De Maria, 1999; Miethe, 1999; Alford, 2001).

Reprisals against whistleblowers usually involve attacks on reputation, working conditions and employment – physical attacks are relatively rare. But in a few areas, there is a greater risk of assault, frame-ups and imprisonment, including whistleblowing about police corruption, organized crime, military abuses and national security issues. Because bioweapons are linked to national security, speaking out about problems and violations is likely to be especially risky. Hence, exceptional caution and care are needed.

In my reading about suppression of dissent over several decades and my discussions with hundreds of whistleblowers, I have come across cases in just about every field: government, corporations, professions, indigenous organizations, police, military, churches, and feminist and environmental groups, among others. There seem to have been few prominent bioweapon-related whistleblowers – but that does not mean there are no problems to expose. For every public case, there are probably 10 or 100 known only to insiders. The most reasonable assumption is that suppression of dissent occurs in bioweapons research at about the same rate as other scientific fields (Martin, 1999b). The treatment of whistleblowers is remarkably similar across diverse occupations. This chapter presents general insights and advice concerning whistleblowing, which is almost certainly relevant to exposing problems related to bioweapons.

In attacking a whistleblower, there is also great damage to the organization. A talented employee is damaged or lost. There may be extensive legal or compensation costs. Reprisals against whistleblowers send a powerful message to other employees: speak out and you too will suffer. The result is often greater acquiescence to managerial directives. And this may be the biggest cost of all.

Whistleblowers can be considered a part of a warning system for society to fix problems before they become worse. Pain is one of the body’s warning systems: it can signal danger. Sometimes the pain is superficial and it is sensible to take a few painkillers. But pain can also signal something deeper: ignore it and the problem gets much worse.

Whistleblowers can cause a sort of pain to organizations. Sometimes their warnings are misguided, at others, their concerns point to deeper problems. Think of Enron, in which massive fraud persisted without checks, leading to the firm’s demise, which also brought down Enron’s accountants, Arthur Andersen.

It is easy to sympathize with whistleblowers when one agrees with their concerns. Enron bit the dust and therefore has few supporters today. But matters are seldom so clear cut at the time. Managers, co-workers and others often see whistleblowers as both misguided and as serious threats to a worthwhile enterprise. For these managers and co-workers, ‘whistleblower’ is too complimentary a term: these individuals are malcontents and traitors.
Daniel Ellsberg worked for the US Defense Department during the Indochina war, helping to write a massive inside history. He gradually became disillusioned with the justifications for the war and leaked the history, called the Pentagon papers, to the media. He could easily have gone to prison; but by the time the Pentagon papers were published, in 1971, there was sufficient public opposition to the war that imprisoning Ellsberg would have been counterproductive. But there was no way that he could have retained his job with the government (Ellsberg, 2002).

It can be hard to appreciate the power of loyalty within organizations. Anyone who goes against the group may be treated as the enemy. Stepping out of line may mean ending one's career. Few individuals are able to break such a big story as Ellsberg and create a new network of support.

So what should be done? The instinctive response of most whistleblowers is to seek justice somewhere else: from a higher-level boss, an internal grievance procedure or an outside agency, such as an ombudsman or the courts. Whistleblowers who speak out because they believe the system works, but experience reprisals instead, often assume that the problem is local and that justice can be found somewhere else. Unfortunately, this is usually misguided.

**Official channels**

Surely, if whistleblowers suffer reprisals for speaking out, the solution must be laws protecting whistleblowers. It seems straightforward. But the reality is disturbingly different.

What is a reprisal? Dismissal, certainly. But what if there is a restructure in the workplace several months down the track – as in the case of Bittler and Guagliardi – and the whistleblower, perhaps along with a few others, is pushed to take a redundancy payment or accept a less attractive post? An employer could easily argue, perhaps sincerely, that the restructure was unrelated to anything that the employee did.

There are other, more insidious, ways of getting at whistleblowers. Ostracism is potent but easily denied, as is petty harassment. In a workplace, quick acceptance of changes to working hours might be standard; a slower and less helpful response might be within the rules, but is incredibly frustrating, although it may not seem like much to outsiders. Damaging rumours are similarly difficult to attribute to reprisals.

Another problem is that the whistleblower, usually a lone individual, has to confront the full power of the organization. A dismissed whistleblower who takes the employer to court for wrongful dismissal has to spend large amounts of money on lawyers while surviving without a salary, confronting an organization with virtually unlimited funds and time. The scales are heavily tilted against the whistleblower.

Official channels tend to be very slow. Court cases can take months or years; even if a court judgment is favourable to the whistleblower, the organization can appeal, spinning out the process. Ombudsmen, auditors-general, anti-corruption bodies and the like are all likely to suffer further reprisals.

Official channels are procedurally slow. Whistleblowers usually seek reach a position to provide it (Rose, 1999a).

Worst of all, the slow process may put all attention on the treatment of the whistleblower, while the original problems that the whistleblower is successful (if at all), the original problems and suffer further reprisals. These problems with official channels are that the imbalances of power in the workplace, a procedural orientation and lack of expertise – explain the appalling results. for example, in the Netherlands, Jean Lennard of the Australian National University, says that the only thing about whistleblowers' experiences is that they will not work. When whistleblowers' experiences are made public, they are often helped in less than one out of ten cases (De Maria, 1999).

Tom Devine (1997), in The person who has been writing an exhaustive advice manual for US employees, says that the most effective laws and agencies offer the best whistleblower protection, but are passed but dodged by employers.

The Office of the Special Prosecutor, which investigates federal crimes, is only for forwarded, and in 1995 only two for agents (Devine 2004, pp83–84)

*On balance, in practice US agencies have been used to investigating fraud and corruption, creating more problems than solutions. The system has been rigged in favor of the organization.*

After the US Congress passed anti-corruption amendments in 1994, the US

... the pattern of futility and corruption, the US court at the Federal Court of Appeals, and the US Supreme Court, has upheld administrative decisions...
tion bodies and the like are also slow to move. As the months pass, the whistleblower may suffer further reprisals or be out of a job.

Official channels are procedural: cases are often decided on technicalities. Whistleblowers usually seek moral justice; but courts and agencies are seldom in a position to provide it (Rosenbaum, 2004).

Worst of all, the slow procedural and reactive processes of official channels put all attention on the treatment of the whistleblower, neglecting the organizational problems that the whistleblower originally spoke out about. Even when the whistleblower is successful (e.g. in obtaining a generous compensation payment), the original problems are unaddressed.

These problems with official channels – reprisals under the radar of laws, an imbalance of power in the whistleblower–organization conflict, slowness, a procedural orientation and lack of attention to the original organizational problem – explain their appalling record in helping whistleblowers. The shortcomings are well known to experienced advisers of whistleblowers (Devine, 1997; Martin, 1999a). Jean Lennane, for many years president of Whistleblowers Australia, says that the only thing you can rely on concerning official channels is that they will not work. William De Maria, in the most significant study of whistleblowers’ experiences with official bodies, found that they reported being helped in less than one out of ten approaches, and in many cases they were worse off (De Maria, 1999).

Tom Devine (1997), in *The Whistleblower’s Survival Guide*, the most comprehensive advice manual for US whistleblowers, finds serious flaws with even the most effective laws and agencies. The US has by far the longest experience with whistleblower protection, beginning during the 1970s. The pattern is that laws are passed but dodged by employers, unenforced by agencies and subverted by courts.

The Office of the Special Counsel, set up to receive whistleblowing disclosures from federal employees, seldom exercises its power to demand investigation of charges made by whistleblowers: ‘The OSC’s annual report for fiscal 1995 reveals that out of 333 whistle-blowing disclosures, the office forwarded only two for agency investigation’ (Devine, 1997, p68).

Devine (2004, pp83–84) paints a gloomy picture:

> On balance, in practice U.S. statutory whistleblower laws have been Trojan horses, creating more retaliation victims than they helped achieve justice ... the system has been rigged so that realistically it routinely endorses retaliation.

After the US Congress passed a stronger law in 1989 and bolstered it with amendments in 1994, the problems continued, according to Devine:

> ... the pattern of futility persists. Between passage of the 1994 amendments and September 2002, whistleblowers lost 74 of 75 decisions on the merits at the Federal Court of Appeals, which has a monopoly on judicial review of administrative decisions. (Devine, 2004, p85)
The law is filled with loopholes and the court regularly interprets the law to favour the government. Meanwhile, in the private sector, there is seldom any legal protection to start with.

One explanation for governments’ enthusiasm for whistleblower protection is that laws give the appearance of dealing with the problem without any substantive change in the way that organizations deal with dissent (Martin, 2003). Several governments have considered or passed whistleblower laws without any consultation with whistleblowers.

Most whistleblowers know nothing about the track record of laws and agencies. With their belief in the system, many of them approach one agency and, after an unsatisfactory response, go on to another, sometimes trying half a dozen bodies in a futile quest for justice. Some of them eventually get in touch with a whistleblowers’ group and find, to their surprise, that others have had identical experiences.

The faith in official channels runs deep. It is to be expected that politicians and agency officials believe in them; but so do quite a few whistleblower activists who argue for stricter laws, better funded agencies and stronger enforcement.

Ethics codes

What about codes of professional ethics, such as the Hippocratic Oath for doctors? Promoting such codes seems like a good idea; but do they work? This is a difficult question because there seems to be virtually no research on the effectiveness of codes. Codes seldom feature in whistleblower stories: I do not recall any case in which codes played a significant role except for one in which a whistleblowing engineer was charged with violating the professional code.

A code of professional ethics is most likely to be effective when it is well established and there are consequences for those who violate it. The Hippocratic Oath therefore should be the standard bearer; but in many cases it has been inadequate to prevent grievous abuses. The most famous example is the behaviour of Nazi doctors in carrying out gruesome experiments (Lifton, 2000). More recently, doctors overseeing the treatment of prisoners at Guantánamo Bay and other US prisons – said by many to involve torture – have come in for criticism (Nicholl et al, 2006).

Engineers commonly subscribe to codes of professional ethics. But this seems not to have discouraged engineers from designing and building nuclear weapons, land mines, cluster bombs and other anti-personnel weapons. There is no record of engineering bodies reprimanding or expelling members for involvement in such activities. The suspicion is that codes of ethics are, in practice, more about protecting the status of the profession than encouraging ethical behaviour in any wider sense.

For example, one analyst of professional codes says: ‘Almost every code of professional ethics includes a provision imposing a responsibility on members of the profession to report violators. Yet, professionals have a poor track record in this regard.’ The main reason is that maintaining harmony in the profession is a priority. The likelihood of reporting a violation is low (Frankel, 1989).

The process of promoting a code is all the more difficult if it involves intense discussion and the acceptance of solid evidence that codes work.

A number of statements are put forward to argue that some of the codes promote good practice (see, for example, the report of the ICSU Panel on International Issues in Science and Security). One of its five points, accounting for activities that violate the biological, chemical and physical laws is: ‘Credibility and respect for the life sciences’, and urges governments to maintain the attention of the public, or apply greater scrutiny to the research that there are reasons to believe that it may be part of a bioterrorist or biowarfare. The discussion of a number of statements, such as the one on the principle of ‘voice’. The International Centre for Genetic Engineering and Biotechnology is the working paper on a code of ethics, which is designed to give the impression that codes are needed in all sciences.

The ICSU and the ICSU Commission on Ethics in Science and Medicine must raise the issue of the need for a code of ethics that is relevant to all sciences. The code of ethics is a statement of principles and values that is relevant to all sciences.

Rather than relying on codes of ethics to address problems, an alternative approach is to promote greater publicity. The basic idea is to put a spotlight on the problems and to promote ways in which codes are needed to address them (Smith, 1994).

Which people? It could be argued that the problem is widespread and that there are many people who are involved in similar or related activities. The fundamental issue is therefore the same: is it possible to address problems by promoting codes of ethics, or is there a need for some form of regulation that would take these problems seriously? The basic idea is to put a spotlight on the problems and to promote ways in which codes are needed to address them (Smith, 1994).

Before proceeding further, what is the goal? A person who speaks of promoting codes of ethics is arguing that authorities will invest time, energy and money in improving the situation, and that the situation will improve. The fundamental flaw in their argument is that codes of ethics are designed to protect the interests of the authorities, not the interests of the public. The situation will improve if authorities act in the interests of the public, not if they act in the interests of the authorities.
whistleblower protection is a problem without any substantive basis for dissent (Martin, 2003). Existing whistleblower laws without any significant track record of laws and agencies approach one agency and, sometimes trying half a dozen times, eventually get in touch with aメーキー that others have had identical problems. It can be expected that politicians may fail to deal with a few whistleblower activists and instead resort to stronger enforcement.

The Hippocratic Oath for medical students is a fine idea; but do they work? This may be why there is virtually no research on the role of whistleblowers. I do not know of any role except for one in which I was appointed the professional code. The effect of an effective when it is well established, and it is not. The Hippocratic Oath is ignored in many cases it has been inadequate, and this is a example is the behaviour of scientists (Lifton, 2000). More alarmingly, members at Guantanamo Bay and Abu Ghraib - have come in for criticism by professional ethics. But this seems to be a matter of building nuclear power plants or personnel weapons. There is an argument that we could be involved in this-ethics are, in practice, more in the form of encouraging ethical behaviour rather than doctrine.

The Hippocratic Oath says: 'Almost every code of ethics places responsibility on members of the profession. It becomes an excuse for having a poor track record in the profession is a priority. The likelihood of reprisals is also important in discouraging reporting (Frankel, 1989).

The process of promoting and implementing a code of ethics may be a useful one if it involves intense discussions among those concerned. But until there is solid evidence that codes work in practice, it would be unwise to rely on them. A number of statements about biowarfare work put trust in codes - and some of the codes promote whistleblowing. For example, the InterAcademy Panel on International Issues (IAP, 2005) put out a statement on biowar. One of its five points, accountability, states: 'Scientists who become aware of activities that violate the Biological and Toxin Weapons Convention or international customary law should raise their concerns with appropriate people, authorities and agencies.' Somerville and Atlas (2005) advocate a 'code of ethics for the life sciences', and urge that individuals and institutions should 'Call to the attention of the public, or appropriate authorities, activities (including unethical research) that there are reasons to believe are likely to contribute to bioterrorism or biowarfare.' The International Committee of the Red Cross put a statement on 'Preventing hostile use of the life sciences' (ICRC, 2004). The statement's principle of 'voicing concerns' includes two action points: 'Encourage people who work in the life sciences to voice concern about issues relating to poisoning and the deliberate spread of infectious disease' and 'Ensure that adequate mechanisms exist for voicing such concerns without fear of retribution.' The International Centre for Genetic Engineering and Biotechnology, in a working paper on a code of conduct for biological scientists, states: 'Whenever any suspicion about the possible hostile use of their research arises, the involved scientists must raise the issue at the appropriate level' (ICGEB, 2005). Such statements (for a general discussion, see Rappert, 2004) sound good on paper; but as I have outlined, the practical reality for those who speak out is grim, and formal systems give only an illusion of protection.

Skills

Rather than relying on codes of ethics, laws and official bodies to prevent or address problems, an alternative is to mobilize support through alliances and publicity. The basic idea is to win over people who will apply pressure to deal with the problem (Martin, 1999a).

Which people? It could be members of the general public who have no particular concern about the issues involved. It could be particular groups or movements with commitments to relevant goals. It could be co-workers.

Before proceeding further, it is best to step back a bit and ask: 'What is my goal?' A person who speaks out thinks there is a problem and reports it, assuming that authorities will investigate and, if necessary, act. But if it is naive to trust the authorities, then the alternative is to find some other way of addressing the problem - either that, or sit back and do nothing.

The fundamental flaw in the idea of whistleblowing is the assumption that a single person, by speaking the truth, can bring a powerful organization to
account. But organizational elites are unlikely to change unless there is a countervailing power. That means that some other people, and the resources that they can bring to bear, need to believe, along with the whistleblower, that something must be done. The whistleblower's task, then, is to win allies: to convince them that something is wrong and they should act.

It may be that the problem is a rogue scientist who is violating protocols without management's awareness. Speaking out about this may not seem risky. But what if managers actually know about the activity? Even if they oppose it, they may not appreciate being shown up for poor oversight.

A scientist, working in the lab, comes across documents suggesting the illicit use of biomaterials. Report it immediately, and the consequence could well be denial, destruction of evidence and reprisals. So, pause and think: how can I convince others that this is serious? Which others should I approach? Whom can I trust?

To convince others, three crucial components are evidence, personal credibility and packaging. Evidence needs to be ample, solid and convincing. The best evidence is physical: letters, emails, recordings and samples. It is unsafe to rely on people's verbal testimony. The boss may have clearly stated at the meeting that the experiment is going ahead regardless; but it is unwise to rely on the other dozen people present to back up your account -- they might all lie, fearing the consequences of stating the truth.

Another problem is that perpetrators will say that the documents have been superseded or that they are being misinterpreted -- in other words, they will claim that the documents do not indicate what is really happening. In a straightforward credibility contest, most people will believe the director of a lab over a single employee. As a result, it is important to have plenty of documents: enough to show convincingly what is going on. It is commonly recommended to whistleblowers to obtain ten times as many documents as they think they will need.

The second crucial component in convincing others is personal credibility. A person known for telling lies, getting drunk, shouting abuse or undermining colleagues will have much less credibility than one known for honesty, sobriety, politeness and generosity.

There are ways around a bad reputation. One of the best is anonymity. Instead of speaking out, leak documents to those who will act on them (Flynn, 2006). The documents will need to be good enough to stand on their own, without personal recommendation and interpretation. Leaking has the great advantage of lowering the risk of reprisals. Nevertheless, it is not easy to be an effective 'leaker' because employers have so many ways of tracking them down. Some photocopying leaves distinctive marks: taking photocopies of photocopies is a wise precaution. Even without a direct physical link, the leaker can sometimes be identified by the documents revealed. A nasty employer will retaliate by dismissing one or more people, even if they are not responsible, making the leaker feel guilty for causing damage to the careers of co-workers.

An intermediate option is to be a leaker and be known to a few individuals who are in receipt of the leaked documents. In this case, personal credibility is again important, as is secrecy when communicating with contacts. The other option is to go public. This can reduce or terminate access to additional documents first.

Once whistleblowers are in an organization, they are likely to be in a position to cast scorn on the work of their colleagues. Principal objectives might be to make their fellow workers feel low. This is a way of discouraging them from leaving a job that has already been tarnished. The firm, in this sense, might seem to be an organization with nothing to hide.

School principals and a few other people have been impersonating teachers and unearthing and disseminating documents. The protection because damaging stories created to discredit them be successful if the person has been to investigate.

The third crucial element is to package relevant information into a way that whistleblowers send off a pile of documents to a likely recipient -- a journalist with energy to go through a large pile of documents. Therefore, a crucial skill for whistleblowers is to make it clear and briefly, preferably in a single sheet of paper, the story. It is often extraordinarily difficult for someone outside an organization to give chapter and verse of events that are known only for an insider, assuming not all is public.

Another temptation is to present revealing documents and events with more effective, leaving it for others to translate.

In summary, in order to prove that the evidence is needed. This needs to be published. In the key issues, and it must be in terms of credibility in the long run.

The next question is who will listen and who is the premium. For something trivial, it is sometimes easier to go straight to the auditors because it is trivial. But the more it is indicative of a long-running scam.

The general rule is that it is to hide in hiding the truth. This means right outside the organization is worth considering all possible.

Co-workers are an obvious choice. They are far more powerful and effective than any other person as an ally is far away. An ally is the tricky part. Approaching those who are quietly informed and suddenly find that co-workers stay away and your finding the right person can be. An exceptional information, contacts...
option is to go public. This can lead to dismissal or denial of privileges, which reduces or terminates access to documents. As a result, it is vital to collect all possible documents first.

Once whistleblowers are identified, it is almost certain that efforts will be made to tarnish their reputation. Any blemish will be uncovered and publicized. School principals have been known to go through personal files of whistleblowing teachers and unearth and make known pupil complaints against the teacher dating five or ten years earlier. Having a totally unblemished record is not full protection because damaging documents may be manufactured and fictitious stories created to discredit the whistleblower. But such attempts are less likely to be successful if the person has a good reputation and good relationships.

The third crucial element in convincing others is packaging — namely, putting relevant information into an accessible and appealing form. All too often, whistleblowers send off a pile of printed material or giant electronic files. The likely recipient — a journalist, politician or activist — seldom has the time or energy to go through a large volume of material to figure out what it's all about. Therefore, a crucial skill for mobilizing support is to summarize the case clearly and briefly, preferably in a single page. This sounds easy enough, but can be extraordinarily difficult for someone very close to the issue. The temptation is to give chapter and verse of every sordid incident. Far better is something written for an outsider, assuming no prior knowledge and highlighting only essential, well-documented points.

Another temptation is to pass judgement — for example, accusing others of malign motivations and unsavoury conduct. A simple recitation of facts is far more effective, leaving it for the reader to make judgements.

In summary, in order to convince others, a substantial body of sound evidence is needed. This needs to be packaged with a short and simple outline of the key issues, and it must be conveyed by someone with a reasonable degree of credibility in terms of who they are and how they present themselves.

The next question is who to approach. This is where good judgement is at a premium. For something trivial, it is best to use the usual channels — it looks silly to go straight to the auditors about a missing £10. But something seemingly trivial is occasionally linked to something bigger: the missing £10 might be part of a long-running scam.

The general rule is that it isunwise to trust anyone who has a vested interest in hiding the truth. This means that the safest people to approach are the ones right outside the organization. But rather than rule anyone out automatically, it is worth considering all possible allies.

Co-workers are an obvious possibility. Half a dozen workers making a claim are far more powerful and convincing than a single one; finding even a single other person as an ally is far better than going it alone. Who to approach? This is the tricky part. Approaching the wrong person could be disastrous: the boss is quietly informed and suddenly all your access to materials is denied, your co-workers stay away and your security clearance is withdrawn. On the other hand, finding the right person can make an enormous difference, with access to additional information, contacts and wise advice.
In such situations, caution is advisable. If there are one or two people whom you trust implicitly, you can confide in them and share ideas about whom else to approach. But if you do not have a good sense of who is trustworthy, it may be worth seeking advice. Often there are some experienced members of the organization who have a good sense of people and organizational dynamics. Getting to know these experienced members is worthwhile. You can start by asking some innocent questions, such as how to help a colleague who is having difficulties with an experiment or a dispute over co-authorship — some sort of dilemma that is different from, but with structural similarities to, the one that concerns you. In this way, you can learn about who is trustworthy, who is self-seeking and who should be avoided.

If one or more co-workers can be brought into a circle of concern, this is a great beginning. If not, you will have to operate alone in the organization. The next step is whether to approach anyone else.

One possibility is union and professional associations. Logically, they should be allies against abuses at work; but the available evidence suggests that unions are unreliable allies for whistleblowers. Sympathetic union officials can be tremendous supporters: they typically have experience and skills to manage conflict situations well. However, in many cases, union officials are useless or worse: sometimes they are tools of management or are aspiring managers themselves and will undermine or sacrifice the whistleblower. The best way of assessing a union is by its track record. Is it mainly concerned about wages and conditions, or does it also tackle civil liberties issues? Does it support unpopular employees or only mates of union officials? Has it ever stood up for whistleblowers in the past?

Professional associations are even less likely to be helpful. Associations for engineers, chemists, biologists and the like are mainly concerned about professional status, not taking stands on contentious issues. During the cold war, US scientific organizations were outspoken about the suppression of dissident Soviet scientists, but were silent about the suppression of US scientists. It is almost certainly futile to write a letter to a national society.

Scientists who report fraud by other scientists — in other words, whistleblowers about scientific fraud — often are treated as the guilty parties, suffering the usual set of reprisals (Martin, 1992; Sarasohn, 1993; Sprague, 1993; Couzin, 2006). In such situations, professional associations have not been valiant defenders of those who speak out. This is probably the best analogy to the situation faced by a scientist blowing the whistle on biosecurity hazards associated with bad laboratory oversight practices.

Rather than go to professional organizations, it is far more promising to approach social responsibility and whistleblower groups, where there are people with experience of similar situations. The UK group freedon to Care is primarily made up of whistleblowers, as is Whistleblowers Australia. In the US, there is no equivalent national group; but there are quite a number of advocacy groups — most prominent is the Government Accountability Project (GAP) — and occupation-based social responsibility groups, such as Public Employees for Environmental Responsibility. Within such groups, there are experienced figures who can offer advice, although they may need help than there are a number of smaller groups, on behalf of individuals is limited. For using formal channels, because many individuals who approach voluntary organizations, does exist. These groups can only offer information, counsel and the US, there are even few for whistleblowers. The upshot is that whistleblowers have to run with their case: us.

Another promising avenue is to consult those concerned with the issue. In various possibilities, environmental groups appear at the offices of War and the League for Peace and Freedom, to find ready support. Most people have found paid office staff. They are used to focused on a variety of immediate holding meetings, producing unusual to find someone on issues with experience in how activists could put you in touch.

Another valuable source of help is more generally, publicity. The story of whom have no connection with anything about the story through a relatively open mind — media, other agencies, who have a stake in the raised an important issue of being sympathetic or outraged. This is a case and settling out of court.

The mass media are big business, labour or other challengers to business pages, but nothing every conflict. Wars receive extensive coverage. Most mainstream news know about these are aware of peaceful protests, Palestinians, Israelis and internal whistleblowers — as challenges in obtaining coverage.

But in the media, journalistic stories. The standard news conflict, proximity and timely nature of malfeasance are attractive building that attract audience into
are one or two people whom you share ideas about whom else is trustworthy, it may make experienced members of the group, and organizational dynamics. It is worthwhile. You can start by helping a colleague who is having trouble with co-authorship — some sort of mutual similarities to, the one that who is trustworthy, is self-

In a circle of concern, this is a good one in the organization. The

Conclusions. Logically, they should be helpful. Associations for 

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who can offer advice, although within limits: there are usually far more people needing help than there are advisers. The capacity of these groups to advocate on behalf of individuals is limited. GAP has enormous experience and expertise for using formal channels, but has the resources to support only a few of the many individuals who approach it for assistance. Whistleblowers Australia, as a voluntary organization, does not formally advocate on behalf of individuals: it can only offer information, contacts and advice. Outside of Australia, the UK and the US, there are even fewer groups dedicated to supporting whistleblowers. The upshot is that whistleblowers seldom have the luxury of having someone else to run with their case: usually they have to do most of the work themselves.

Another promising avenue for whistleblowers is to approach activist groups concerned with the issue. In relation to bioweapons, peace groups are an obvious possibility; environmental groups are another. But it would be unwise to appear at the offices of War Resisters’ International or Women’s International League for Peace and Freedom — two of the oldest peace groups — and expect to find ready support. Most peace groups are made up of volunteers, with only a few paid office staff. They are chronically under-funded and the staff are usually focused on a variety of immediate matters, such as answering correspondence, holding meetings, producing newsletters and organizing actions. It would be unusual to find someone on hand who is knowledgeable about bioweapons issues or with experience in handling inside information. But it is quite likely that activists could put you in touch with a good person with whom to talk about this.

Another valuable source of support for whistleblowers is media coverage or, more generally, publicity. The media relay stories to a wide range of people, most of whom have no connection with the organization. Therefore, the typical person hearing about the story through the media is likely to approach the matter with a relatively open mind — much more open, certainly, than bosses or watchdog agencies, who have a stake in what happens. If the whistleblower seems to have raised an important issue or has been unfairly treated, many people will be sympathetic or outraged. This is the reason why bureaucrats hate media coverage more than anything. They would much rather spend millions fighting a court case and settling out of court than suffer damaging publicity.

The mass media are big business and are often indifferent or hostile towards labour or other challengers to dominant groups. Major newspapers have business pages, but nothing equivalent for labour issues. In news reporting, some wars receive extensive coverage, but few peaceful protests ever do. Consumers of mainstream news know about Palestinian suicide bombers in Israel; but few are aware of peaceful protests in Palestine and Israel nearly every day by Palestinians, Israelis and international participants. Therefore, it might seem that whistleblowers — as challengers to organizational elites — would have a hard time in obtaining coverage.

But in the media, journalists and editors are constantly on the search for good stories. The standard news values emphasize factors such as prominence, conflict, proximity and timeliness. Stories about corruption and organizational malleance are attractive because they are manifestations of conflict and scandal that attract audience interest. They are not deeply subversive because the
usual assumption is that a few individuals, or perhaps an entire organization, are corrupt, but not the entire system: a few apples are bad, not the barrel. Whistleblower stories add the spice of personality and can provide a disturbing story of a public-spirited person who is unfairly treated. In the past few decades, the idea of whistleblowing has become widely understood in the media and is routinely used to frame stories. This means that the media can provide tremendous support for whistleblowers.

But media coverage does not happen automatically. People who want to speak out need to know how the media operate and how to present their stories effectively. This includes being able to write a concise summary of one’s case – as described above; knowing how to contact trustworthy journalists; knowing how much information to provide and when to provide it; being prepared for interviews (if one goes public); being prepared for the boom-bust pattern of coverage (with a burst of intense coverage typically followed by very little); understanding the interests of print, radio and television journalists; and much else. Most people have few regular interactions with the media except as consumers and therefore have little idea of how the media operate. As a result, it is worthwhile gaining tips from activists, sympathetic public relations staff, other whistleblowers and from journalists themselves.

It is important to realize that the media are not automatic supporters of whistleblowers. A good journalist will seek comment from both sides in a dispute, so no one can expect to have an entirely sympathetic story. On the other side, organizational elites are typically very unhappy about even a little negative coverage.

Sometimes the media turn against a whistleblower, joining organizational power-brokers in the attack. It’s best to be prepared for this too. Far more likely, however, is a lack of interest from the mass media. The story may be too old, too complex or not considered important enough – or perhaps the whistleblower simply has not provided enough damning evidence. But it is still possible to take the story to a wide audience using alternative media, such as action group newsletters, community radio stations and internet news sites (e.g. Indymedia). Furthermore, dissidents can tell their own story through the internet by writing it up and putting it on a website, sending emails or writing blogs.

There are many options. One is to compose a sober message about the problems in an organization and to send it to all the staff using a standard list. Another is to put a substantial amount of information – summaries, documents and pictures – on a website (in another country for better security) and then send an email to interested parties.

Given the likelihood of reprisals, it is safest to leave the organization and find a new, sympathetic employer before making disclosures. And it is worth making sure that every single statement is factual, backed up by documents, in order to reduce the risk of being sued for defamation.

As well as the options of being a whistleblower – an open critic – and being a leaker, there is the possibility of being an open but anonymous dissident. It is possible to send an email to members of the organization – and perhaps to outsiders, as well, including journalists – revealing problems, using anonymous remailers to hide one’s identity or to create new email accounts to find the sender, or even specially created email accounts.

The aim in this chapter is to point out that there are options available and that being one of them is crucial to being an effective whistle-blower, including reporting abuses.

A final skill of crucial importance is to recognize the dangers to the public because the public needs a likely to win support. Know your arguments, but poor in summarizing them and search for allies.

An effective organisational skill is to liaising with groups, using their skills are acquired in scientific and practical ways.

It is possible to imagine an employee or employees so that they are between the eyes, problems, and proceeds by some running workshops on speaking with groups. A skilled and network with groups against abuse. But just to start from the usual practice. Make sure procedures and codes of practice are based upon others, without any specific:

Therefore, the best hope lies with workers themselves and activist groups.

The best people to expose information about them up close: the workers. It is an abnormal solution to this problem. The record of whistleblower protection – the ombudsmen and the like – is only an illusion of protection of the problems.

An alternative to whistleblowing as a way of action. This requires a shift in the definition of the problem, so I’ll speak out about it – perhaps to figure out the best way to b
remailers to hide one’s identity. There could well be a search though all employee accounts to find the sender, so it would be wise to use an internet café and a specially created email account for the single message.

The aim in this chapter is not to cover every possibility, but rather to point out that there are options and that having the knowledge and skills to pursue them is crucial to being an effective organizational dissident. Sadly, doing one’s job, including reporting abuses and dangers, may require becoming a dissident.

A final skill of crucial importance is understanding oneself: one’s motivations, strengths, weaknesses and goals. For example, it is vital to be able to separate a personal desire for recognition or revenge from a more altruistic concern about dangers to the public because speaking out in the public interest is far more likely to win support. Knowing that one is, for example, good at collecting documents, but poor in summarizing the arguments, is important and can guide one’s search for allies.

An effective organizational dissident thus needs many skills for collecting information, writing coherent accounts, understanding organizational dynamics, liaising with groups, using the media and understanding oneself. Few of these skills are acquired in scientific, or, indeed, most other, jobs.

It is possible to imagine an enlightened management who decides to empower employees so that they are better able to document and expose organizational problems, and proceeds by distributing information about whistleblowing, running workshops on speaking and writing, and inviting speakers from activist groups. A skilled and networked workforce would be a powerful protection against abuses. But just to spell out this vision is to highlight how distant it is from the usual practice. Managements, instead, prefer to set up hotlines, grievance procedures and codes of ethics, all of which make employees dependent upon others, without any special skill development.

Therefore, the best hope for fostering the skills needed to address abuses lies with workers themselves and with outside groups, including whistleblower and activist groups.

**Conclusions**

The best people to expose problems within organizations are those who see them up close: the workers. But people who speak out often suffer reprisals. The normal solution to this problem is whistleblower protection: laws and procedures to protect those who make public interest disclosures. Unfortunately, the track record of whistleblower protection measures - whistleblower laws, hotlines, ombudsmen and the like - is abysmal. In many cases, these formal processes give only an illusion of protection. Codes of ethics seem similarly impotent in the face of the problems.

An alternative to whistleblower protection is fostering effective organizational action. This requires a shift in mindset. Rather than thinking: ‘I observed a problem, so I’ll speak out about it’, the alternative is: ‘I observed a problem, so I’ll figure out the best way to be effective in dealing with it.’ If there is a single rule
for people wanting to address an organizational problem, it is to seek advice before acting, including advice from people who know a lot about how organizations operate and how to tackle social problems. Part of the likely advice is that just speaking out, without preparation, is unwise – in fact, it’s likely to be disastrous. A lot of preparation is needed, including gathering information, recruiting allies, developing skills and planning a course of action.

Scientists are familiar with the discrepancy between everyday perceptions of the world and scientific understandings. The world may appear flat, the sun may appear to move across the sky and desks may appear to be solid; scientists, using their skills and tools, have arrived at more sophisticated and powerful understandings, some of which have become common knowledge.

Yet, when it comes to the social world, most scientists, like most other workers, are naïve observers, treating social life in terms of surface understandings, including that a report about a problem will be investigated, that whistleblower laws protect whistleblowers and that courts and official agencies dispense justice. Research and the accumulated experience of whistleblower advisers point to different realities: workers who report a problem may be targeted with reprisals; whistleblower laws do not provide protection; and official channels do not dispense justice.

Whistleblowers often suffer a related misconception: their own case is different. Even when they hear about the treatment of other whistleblowers, they think their experience will be different because they know that they are right: they have truth on their side. Sadly, this is no protection. The key to progress in science, and in whistleblowing, is learning from the experience of others and developing the skills, acquiring the resources and building the networks to do better.

Acknowledgements

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Paul Chapman
A Web of Prevention

Biological Weapons, Life Sciences and the Governance of Research

Edited by
Brian Rappert and Caitriona McLeish

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