Feminism, Surveys, and Toxic Details

Office workers are not falling off tall buildings, emerging at 5pm covered with soot, or getting their hands caught in dangerous machines. But as an understanding of chemical and psychological hazards has increased, we have learned that office workers are exposed to severe dangers, all the more severe because they are often invisible and unrecognized.—Ellen Cassedy, 9to5, 1979

[3] **Black lung, brown lung,** silicosis, asbestosis, radiation poisoning—these are the kinds of diseases that spring to mind when we think of occupational health in twentieth-century America.[1] Compared to the mechanical and chemical hazards of industrial work that led to loss of limb and life, the carpeted, air-conditioned, clean interiors of late-capitalist office work appeared benign refuges from occupational disease and explicit exploitation. For ventilation engineers and corporate managers, as I argued in chapters 1 and 2, office buildings were materially arranged as efficient and even comfortable places for the extraction of labor. Both of these disciplines were undergirded by assemblages that gendered workers into universalized bodies amenable to mechanical control. However, the actual typists, secretaries, and data processors inhabiting offices were not fully captured by this portrait; in their daily lives as office workers they might struggle to dress appropriately, feel harassed by their boss, find an office machine clumsy, or read novels at breaks. While the office, relative to the factory, was indeed comfortable and safe, those attributes only partially captured the corporeal experience of office work. As a feminized labor force, moreover, office workers in the 1970s were poised to answer the hail of a resurgent feminism that disrupted the pacified gender roles the office relied on, summoning women as critical embodied registers of the effects of patriarchy.[2]

How did the women office workers' movement rematerialize the ef-

fects of office work when office buildings were designed to supply a neutral, hence comfortable, environment? Rematerialization was not simply in the negative, a "saying no" to the coercion of the office; nor was it a liberation or escape from office work. Rematerialization involved the production of an alternative way of assembling office work and bodies together that allowed workers to detect and articulate a previously unmarked oppression that required intervention. The built environment of the office was not just an external, a priori thing that workers simply responded to, were effected by, or understood more or less accurately. Instead, women office workers were part of the office and could instigate new means of inhabiting it, thus making the office a different kind of place. Forming a movement, office workers brought together vernacular technoscience and feminist practices that imbued office work with some characteristics and not others. Through their social and technical assemblage, the office became composed of an oppressive tide of small details, what one could call the microphysics of office work.[3] Instead of a machine for extracting efficiency in a pleasant environment, the office was rematerialized as a site of oppression and pathology. In the following pages, I argue that materializations from below—by office workers who were feminists and labor activists—were made possible by a technoscientific assemblage requiring as much skill with bodies, language, and artifacts as the highest technoscientific materializations.[4] Their rendering of office work uneasily coexisted with, rather than negated, the comfortable climate and efficient spatial arrangements that made up the material culture of office buildings.

Office workers in the 1970s had no specific disease for doctors to diagnose nor acute chemical exposure for investigators to measure. Office workers instead claimed that they experienced a multitude of minor corporeal distresses in myriad and seemingly innocuous circumstances. If occupational illness was generated by office work, the "nature" of that illness contravened conventional understandings of occupational disease. At the beginning of the twentieth century, the "nature" of occupational health had been formulated in terms of industrial accidents identifiable in time and place. Accidents and their compensation were codified in schedules: lose an arm, receive *X* amount of money.[5] In the 1930s workers' compensation boards expanded their compass by adding select industrial diseases to schedules. Newly established industrial hygiene laboratories identified occupational diseases in terms amenable

to the logic of industrial accidents: as a predictable disease, such as lead poisoning, that an acute exposure to a specific chemical caused. Such occupational diseases could be specified and compensated as predictable and regular results of exposures that could be pinpointed.[6] Thus scientists developed technologies such as blood tests, X-rays, air samplers, and exposure chambers to render perceptible specific and predictable causal pathways between an identified workplace exposure and its corresponding physiological expression.[7] Enshrined in investigation protocols, juridical precedents, and workers' compensation rules, the use of such technologies and the formulation of specific causality became necessary to prove the very existence of occupational illness. In this specific sense, however, there was no "disease" associated with office work. If occupational illness was to be associated with office work, its nature defied causal specificity and the search for discrete disease entities. Thus, the women office workers' movement had to offer an alternative version of how workplaces might affect bodies.

The identification of modern occupational health problems—from black lung to sick building syndrome (SBS)—has more often been the result of grassroots struggle than medical detective work. Most incidents of occupational illness, community chemical exposures, and cancer clusters in the twentieth-century United States would not have become recognized without the vernacular technoscientific practices of workers and lay people, often called "popular epidemiology."[8] The efforts of the women office workers' movement of the 1970s and 1980s to name and apprehend occupational health problems in the office is an example. Activists and advocacy groups such as 9to5, the National Organization of Women Office Workers, drew on feminist and scientific methods to materialize the corporeal effects of office work, maintaining that, despite appearances, office work generated dispersed, insidious, and gendered forms of oppression that were individually negligible, but that were nonetheless rendered legible as a collectivity. Instead of housing specific, chemically induced industrial diseases, office hazards were *nonspecific*, subtle assaults caused by seemingly banal technologies and trivialized work practices.

Feminism in the Office

The women's liberation movement appears to be on the threshold of a second phase—when feminist consciousness reaches beyond white, middle-class women . . . [A] clear sign of the new awareness felt by the so-called typical woman is the way office workers are asserting themselves. There is nothing quite so typical as a woman who is a secretary, typist, clerk, or keypunch operator.—Margie Albert, union organizer, "Something New" (1973)

Labor organizing among women clerical workers occurred as far back as the 1900s; despite a lack of interest in organizing women clerical workers within established unions, a small number of women organized themselves, first through mutual benefit societies and later through unionism with the help of the Women's Trade Union League in the 1910s.[9] The 1920s saw a decline in organizing until the 1930s, when the largest clerical union, the United Office and Professional Workers of America (UOPWA), affiliated with the Congress of Industrial Organizations (CIO), was established. When it refused to release the names of its communist members, the UOPWA was expelled by the CIO in 1949.[10] As a result, the UOPWA folded. Through the 1950s and 1960s both office unionism and feminism became distant to women office workers. It was not until the resurgence of feminism, in the form of the women's liberation movement of the 1970s, that women office workers began organizing again.

Like the broader feminist movement, the women office workers' movement that emerged from it was not a single coherent entity. It was made up of scattered cells that had independently sprung up in cities sprinkled around the nation. On International Women's Day in 1971, at a National Organization of Women (NOW) conference in San Francisco, a handful of working class women formed their own feminist organization, Union WAGE. In Chicago, Women Employed was established. In Cleveland, Working Women. In New York, Women Office Workers (WOW). In Boston in 1972, two secretaries at Harvard's School of Education, Ellen Cassedy and Karen Nussbaum, formed 9to5, which held its first meetings in a room at the Cambridge YWCA.[11] Similar grassroots organizations were created in other cities. *Ms.* magazine reported that women's caucuses were even appearing in companies like Polaroid, Blue Cross, General Electric, and AT&T.[12] Critiques of the technologies

and scientific management practices composing the late-capitalist office were central to this fledgling grassroots movement.

The office workers' movement was a new kind of labor activism. First, its founders envisioned their efforts as a practical extension of the larger women's movement into the lives and concerns of working-class women, allowing them to organize around gender instead of class. Second, the movement was formed of organizations independent of the male-dominated labor unions. The founders considered their efforts an innovation within the labor movement, providing women, many of whom had misgivings about unionism, with an alternative vehicle for responding to inequalities in the workplace. For example, 9to5 saw its role within the labor movement as "working on issues of discrimination and fair employment in general, developing activists in the cause of working women, and serving as a lightning rod for the expression of problems and concerns."[13] Feminism provided a means to reach and organize women across the nation around broad issues, even when their workplaces were not amenable to unionization. Though the founders of the office workers' movement were feminists and the membership almost entirely female, not all the women 9to5 tried to organize would have called themselves "feminists." Yet these women had been affected by the ideas of the women's movement, believing that they were due equal pay and respect. In response to many office workers' ambivalent relationship to feminism, organizers within the women office workers' movement exclusively focused on issues pertaining to working women, declining to take positions on such issues as abortion and sexuality.[14] Moreover, the women office workers' movement only organized those women who worked with information technologies, entirely neglecting other groups of women who worked in office buildings, such as cleaners, custodial workers, cafeteria workers, mailroom sorters, and so on. These workers, often new immigrants or women of color, remained invisible to and excluded from the movement, despite the occupational health hazards they faced in the same building.

The women office workers' movement was not by any means anti-union. However, it did feel a need to develop techniques outside of the traditional union drive that would speak to women who, though perhaps not feminists themselves, were living in the context of feminism. To this end, the women office workers' movement both drew on the agency feminism had granted women and imported tactics from feminism for

its own grassroots organizing. In particular, the technique of "consciousness raising" became a crucial tool of the movement, used to convince women office workers that they had "rights" and deserved "respect" in the workplace, thereby paving the way for possible unionization.

Consciousness Raising

Consciousness raising, which had begun among radical feminists in New York in the late 1960s, spread rapidly across America.[15] By the end of 1970, every major city in the country had consciousness-raising groups—New York City alone had hundreds.[16] Even liberal feminist organizations like NOW were founding consciousness-raising groups. Consciousness raising was a discursive instrument: small groups of women got together, "rapped," shared their "experiences," found commonalties, and began to analyze them in a discussion. It was a powerful technique for translating seemingly idiosyncratic personal events and emotions into a gender-based "experience."

Consciousness raising can be thought of as a technique for unsaying what has already been said ("the office works efficiently and safely") and saying what was unsaid ("the office is an exploitative and harmful technology for extracting labor"). It was a technique for undoing the self-evidence of what might otherwise appear to be a fixed or natural social structure. It was also a technique that operated by collecting variation and turning it into commonality—it took accounts of different women's lives and abstracted a common womanness or class membership. This ability to produce an analysis based on a commonality underneath variation assumed its own universalized subject—Woman with a capital *W*. Thus, consciousness raising functioned first by valorizing variation and then by covering it over. The use of consciousness raising by the women office workers' movement, moreover, depended precisely on this problematic ability to transform difference into commonality.

Women Office Workers (WOW) of New York was founded through consciousness-raising techniques in the summer of 1973:

> Several office workers got together to rap about what could be done to improve the life of clerical workers. Some of us were active in the women's organizations and some in unions. . . . we also believe[d] that office

> workers are not immune to the consciousness raising that has been changing the lives of professional and middle-class women. What was missing was a vehicle for bringing together women office workers who often felt alienated from what went on at typical women's movement meetings.[17]

WOW advertised its consciousness-raising sessions in its newsletter: "If you want to find out more about WOW, we can come to your home to talk to you and your co-workers. It's sort of a Tupperware party idea, except we're not selling pans—we're exchanging experiences and ideas."[18] Similarly, Karen Nussbaum advised women in the *Working Woman's Guide to Office Survival*: "Suppose the office workers at your company have no organized group and you would like to start one . . . where do you begin? If your office chair is uncomfortable and the woman at the next desk has complained that her chair is also uncomfortable, then chances are you have already begun. Organizing begins when two or more people exchange common needs or grievances."[19]

The successful Hollywood movie *9 to 5* (1980) even brought consciousness raising to the masses. During a pivotal scene its stars, Jane Fonda, Lily Tomlin, and Dolly Parton, play disgruntled office workers who, encouraged by smoking marijuana one evening, begin to exchange experiences in a consciousness-raising session, realize their common oppression, and plot comic revenge.[20]

Through consciousness raising "experience" played a critical role in feminist analysis and was more generally an important referent in many political movements of the 1960s and the 1970s; it was mobilized as a counterknowledge that could set into question and even replace other types of expertise.[21] "Experience" was considered by radical feminists to be an alternate and more accurate source of knowledge about the status of women than already existent, male-produced knowledge, including scientific knowledge. Kathie Sarachild, the member of New York Radical Women who coined the term *consciousness raising*, argued that by basing their methods in experience, members of her group "were in effect repeating the seventeenth-century challenge of science to scholasticism: 'study nature, not books,' and put all theories to the test of living practice and action."[22] Consciousness raising was thus conceived as a successor science with better truth-telling capacities.

When consciousness raising was practiced in the women's health movement, "experience" became a type of personal knowledge originat-

ing in the body itself, and women were encouraged to trust their own corporeal sensations over medical authority. Thus, feminists tended to claim an epistemic privilege for experiential and embodied knowledge. It was possible, therefore, for some feminists to argue that the nature of oppression could only be accurately comprehended by the oppressed (and thus that no one else could refute their assertions). As members of a cultural elite, so the argument went, male scientists, sociologists, and managers were alienated from this knowledge gained through life under oppression. Thus, not only did appeals to experience bring political struggles down to the level of the body, they also asserted that oppression and suffering themselves provided special access to a type of knowledge that other expertise overlooked.

"Experience" is a category of knowledge that is just as historical as other forms of knowledge. The claim being made here is not as straightforward as asserting that our experiences of the world are shaped by culture and history. Instead, I am drawing attention to a stronger point: It is only through particular methods rooted historically in time and space that "experience" becomes a kind of evidence imbued with certain truth-telling qualities. Put more specifically, with the method of consciousness raising, "experience" of the intimate and minute details of one's personal life, and even one's body, became a kind of evidence of more general gendered phenomena. The persuasive force of the evidence of "experience" came from its being marked as (rather than self-evidently being) more proximate or "authentic" than expert knowledge. In short, in consciousness raising "experience" was not just collected, it was generated as a kind of evidence.

Oppression in the Details

With the aid of consciousness raising, practitioners transformed individual women's "experiences" into an analysis of the accumulation of small, trivial, day-to-day behaviors that made patriarchy possible and which, in turn, patriarchy constituted as invisible. It was this apprehension of how power operated through the details that connected women's bodies to the material conditions of office work. Feminist labor activists argued that oppression in the office was not necessarily obvious—women worked in air-conditioned rooms with potted plants and mod-

ern technological conveniences; rather, oppression took place in the seemingly trivial details of day-to-day interactions.[23] While designers promoted the plush carpets and modern furniture of the information economy as "humanity in an age of machines,"[24] feminist workers identified these same attributes as microtactics: "An older man sitting behind a huge oak desk in a large room with pictures on the wall of him shaking hands with President Nixon or John F. Kennedy, and his secretary at his side, uses all of that to intimidate. . . . One of these guys *starts off* by referring to you as girls, by intentionally forgetting your name and making sure that you know his. People now understand these things as *tactics* and they are willing to develop their own tactics to counterbalance his."[25] The subtle signals and daily minuscule humiliations—the way yellow and orange walls were meant to make workers feel "up," the way partitions isolated workers from each other, the way plastic modular furniture systems were advertised as a means to "solve your people problems,"[26] the way women had to fetch coffee—all these tiny details as construed by consciousness raising comprised the dispersed operation of office oppression.[27]

In 1977 the dispersed pockets of women activists began joining together to become a national group based in Cleveland, at first called Working Women, and then renamed 9to5 in 1983. By the early 1980s the movement had locals in Los Angeles, Baltimore, Boston, Minneapolis, Atlanta, Philadelphia, Washington, Pittsburgh, Cincinnati, Cleveland, Dayton, Providence, Seattle, San Francisco, and New York, with a total of over ten thousand members. As the movement grew and became more institutionalized, the grassroots technique of consciousness raising fell away, but the materialization of office oppression as occurring in the details remained. Following feminism's lead, the office workers' movement began to ask how the dispersed quality of office oppression might inscribe itself directly on the body, producing material effects that could be called occupational illness.

The Toxic Office

From its inception, the women office workers' movement was critical of the effects of automation and new digital technologies.[28] While desktop computers were not part of the office landscape until the 1980s, many

back-office workers already were toiling on manual tasks affiliated with the computerization of office work. In the 1970s, an office worker might, for example, enter data on a VDT. An office worker also might work with a photocopier, which by the 1970s was standard office equipment. Not all new technologies were machines: carbonless paper and correction fluid had become common parts of office work, as had furniture made out of plastic, synthetic textiles, and chipboard. The budding environmental movement of the 1970s supported suspicion about hidden toxic chemicals, especially following incidents like that at Love Canal, where working-class women showed that supposedly ordinary neighborhoods were toxic, providing a new critical way of looking at everyday technologies and environments. Though the feminist office workers' movement made no explicit political alignment with the environmental movement, it is not surprising that office workers began to examine with suspicion the new technologies that made up the ordinary environment of the office: "No one knows much about the new machines being introduced as large offices automate or the chemical products that have replaced the old rubber eraser and typewriter brush. They smell bad, but just how much harm will they do over a period of years?"[29] Much suspicion was concentrated on the VDT: not only was it tied to concerns about automation and routinization, but workers who spent hours staring at a small green-on-black screen also ended up with eyestrain, headaches, and cramped necks. In cartoons from the early years of the office workers' movement, VDTs were sometimes portrayed as colonizing workers bodies, turning flesh into machine by virtue of the repetitive manual labor they required (see Fig. 12). Sitting inches away from a terminal, some women also wondered if low-level radiation emissions might cause miscarriages or otherwise damage their reproductive abilities.[30]

Jeanne Stellman was one of the few occupational health researchers in this period to be interested in the idea that the office could be hazardous to workers' health.[31] At conferences and meetings held by the feminist office workers' movement, Stellman was often the lone speaker on occupational health. In 1978 Stellman founded the Women's Occupational Health Resource Center in Brooklyn, New York, which served as a clearinghouse for information on women's occupational health issues and for a time became the center of feminist occupational-health efforts. Between 1981 and 1983 the resource center held training sessions for over four thousand workers, published a newsletter, and

produced fact sheets (many based on Stellman's book) some of which covered the dangers of photocopiers, indoor air, VDT work, and other occupational hazards. Fact sheets typically listed a hazard and suggested a means of prevention. For example, the general fact sheet on "clerical work" published in 1980 listed excessive sitting, fatigue, stress, noise, poor office design, ozone, and organic solvents as the most prevalent office hazards. Above the list was the following caveat: "The exact nature and extent of office hazards are not known. They vary from office to office."[32] Since no rigorous scientific or epidemiological studies had yet connected a hazard with a specific occupational illness, Stellman's fact sheets were primarily speculative suggestions based on chemical ingredients also found in industrial settings. She justified her extrapolation from industrial exposures to the office setting by observing that, "today all workers have—in one way or another—become chemical workers and everybody is exposed to chemicals in the workplace."[33]

Encouraged by the suggestive statements in Stellman's work, 9to5 more carefully considered office technologies and quickly found that workers were surrounded by products that contained potentially toxic chemicals. Though these chemicals were usually present in minute quantities, no one had investigated their cumulative effect. Framing the effects of the office in terms of occupational health created a vehicle for connecting "the body"—the pivotal site of feminist politics—to office work. By 1980 occupational health became a core issue for 9to5, and Project Health and Safety was founded.

Project Health and Safety began by researching some of the chemicals that went into office technologies and building materials. It found reports that photocopier toner was linked to cancer.[34] It cited the testimony of one woman who had successfully filed a workers' compensation claim for exposure to photocopier exhaust.[35] It unearthed a handful of instances where office workers had suffered from formaldehyde poisoning and noted that the federal government was considering banning urea formaldehyde foam insulation.[36] Correction fluid also fell under the project's suspicion after newspapers reported that a Texas teenager died by using it as an inhalant (see Fig. 13).

Despite this research, Project Health and Safety did not collect enough evidence to launch a campaign around any specific technology, chemical, or illness associated with office work. Rather, what it had assembled was a sense that possible toxic exposures lurked everywhere, even in the most

Figure 12. Cartoons from the women office workers' movement of the 1970s often commented on the bodily and psychic effects of routinized data-processing labor done on early computing terminals. Here, the worker's body is colonized by the machinery of the VDT. From Tepperman, *Sixty Words a Minute*.

Figure 13. This poster from Project Health and Safety aptly expressed the view that dangers lurked in the tiniest details of office work. It also captures the way informal surveys—here a list of prompts to "watch out for"—were used for consciousness raising. Poster, Working Women, 1981.

seemingly banal of office supplies and technologies. The fact that these potential hazards were barely discernable made them, not more benign, but, as Ellen Cassedy explained, "all the more severe because they are often invisible and unrecognized." Nussbaum, quoted at length here, aptly captured this perception that insidious hazards lurked in the most unsuspecting places in the following excerpt from a speech:

> Let me give you a guided tour of the hazards in just sending out one letter:
>
> Alice prepares to type a letter for Mr. Big. The carbonless typing paper she uses is made with abietic acid to fill the pores, and PCB's—polychlorinated by-phenyls. Abietic acid has been found to cause dermatitis and PCB's are extremely toxic, causing irritation to eyes, skin, nose and throat, can cause severe liver damage, and are suspected carcinogens. The typing ribbon she uses also contains PCB's.
>
> To correct an error she uses a correction fluid containing trichloroethylene—TCE. In high doses, TCE can have a depressing effect on the central nervous system and can cause liver damage and lung dysfunction. . . . Alice goes to make a copy of the letter on the photocopy machine, which may emit ozone, a deadly substance. In poorly ventilated areas it's not hard to raise ozone to at least twice the federal standard. That black powder in the machine—the toner—may have nitropyrene or TNF, trinitroflourenone—suspected mutagens. . . . While in the copying room, Alice breathes methanol from the duplicating machine, which can cause liver damage. She ends her hazardous journey by filing Mr. Big's copy of the letter in a plastic file containing polyvinyl chloride, which can cause skin lesions and dermatitis.[37]

In other words, like office oppression, toxicity was in the details. To complicate matters further, these details varied from office to office and their health effects from person to person.

The women at Project Health and Safety understood that their conception of office occupational health was problematic and hard to believe (and that getting through to some managers might require extraordinary means, as caricatured in Fig. 14). Medical diagnosis, workers' compensation standards, and juridical precedent demanded more specific and acute causal explanations. As Stellman explained, "There is no disease currently known as officeitis, nor is there likely to be one. One can explain this by considering that each of the occupational health hazards . . . usually produce[s] a slow, subtle, insidious effect over time for which cause and effect may not be discernible. . . . In essence, the development

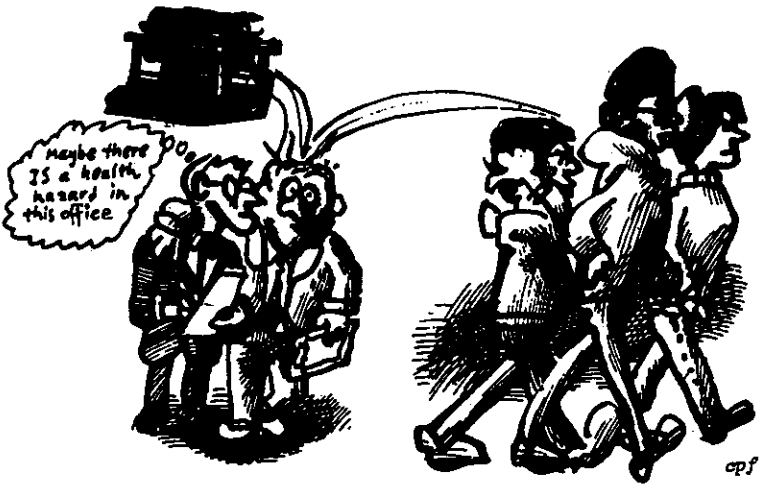

Figure 14. Management's disbelief in office hazards was a frequent theme in cartoons from the women office workers' movement in the 1970s. In this cartoon from the San Francisco–area group Union WAGE, workers literally hit management over the head with the reality of health hazards. From *Union Wage Newsletter,* April/May 1975.

of similar symptoms from many different low-level causes makes all chronic disease particularly difficult to understand."[38]

The obstacles to clinical recognition of nonspecific occupational health problems were numerous. Most physicians were trained to search for discrete disease entities, and there was no "officeitis." Further, since they diagnosed workers one at a time, doctors had difficulty perceiving building-wide patterns that consciousness raising might have revealed. Finally, the vague and often mild symptoms women workers presented could be explained by other diagnoses that medicine had developed long ago—"dysmenorrhea," "hysteria," or "psychosomatism"—and then treated with tranquilizing pharmaceuticals. In contrast to feminists, most doctors did not consider women's self-described experiences to be the most accurate registers of their health.

Additionally, occupational health investigators at the National Institute of Occupational Safety and Health (NIOSH) were not particularly concerned with office occupational health issues; the hazards of office work paled next to those industrial workers endured. When NIOSH investigators did examine office conditions, they usually came away

empty-handed—their instruments, designed to register high levels of toxic chemicals in industrial settings, found no significant exposures to record in the office. Not only was a physical phenomenon imperceptible through their techniques, but the nonspecific phenomena officer workers complained of failed to fit the toxicological model of specific and acute chemical exposure and thus seemed outside the realm of possibility. Investigators at NIOSH found themselves turning to psychosomatic explanations, such as mass hysteria and mass psychogenic illness (MPI), to make sense of the variety and nonspecificity of women office workers' complaints.[39] Perhaps, some investigators suggested, such symptoms were a gendered psychological response to life stresses.

Surveys and "Experience"

Project Health and Safety needed a tool suited to its new institutionalized activism, one that could do some of the work consciousness raising had done when the movement had been more grassroots. Its activists needed a tool that could gather into a single event an unwieldy constellation of health effects, a tool that was affordable and easy to use without experts, a tool, unlike consciousness raising itself, that could transport their controversial vision of occupational health beyond themselves to persuade others. Here they turned to the survey.

In the 1980s, 9to5 increasingly left one-on-one organizing to union drives and focused on articulating—to workers, government, and the media—the broad issues that women office workers shared. Likewise, Project Health and Safety became concerned with occupational health, not to organize individual workplaces but to educate workers and authorities about the broader issue. The survey, imported from the social sciences, joined the grassroots feminist methods that had given birth to the movement. The power of the survey was that it performed several functions. For 9to5, it was important that the survey work as an extension of consciousness raising by other means. It had to compel workers to ask probing questions about their own bodies and surroundings. It had to continue the work of assembling dispersed experiences into a pattern of endemic oppression.[40] Of equal importance was the survey's ability to transport this apprehension to the media, to governments, and to expert audiences. While the survey performed these functions well, it

also came into conflict with the appeal of consciousness raising to "experience" as a counterknowledge that could challenge expert knowledge and reductive science. The survey came with a price—it changed "experience" into quantitative evidence.

This change in the place of "experience" partially resulted from the institutional character of 9to5, which now had an executive board composed of members who chaired committees, a staff director who in turn hired other staff, and an executive director, Karen Nussbaum. No longer was the movement formed of office workers getting together at informal gatherings likened to "Tupperware parties." Instead, it was run by professional activists, mostly white and college-educated, who found themselves lobbying politicians, giving lecture tours, and testifying at congressional hearings.[41] The members of Project Health and Safety were no longer directly compelled by their own first-hand experiences of working in the office. For the career activist, the survey gathered the "experience" of office work at a distance; the social science survey already had a long tradition of such use by educated, feminist social workers. In the opening decades of the twentieth century, progressive social activists like those at Hull House and the influential industrial hygienist Alice Hamilton had innovatively used the social science survey in their work, participating in a British-U.S. Progressive Era social survey movement.[42] Surveys, administered by social workers, doctors, or union organizers, gathered information about the distribution of problems and capacities among the people one meant to help. The survey was a technology middle-class activists used to assess the conditions of others, especially the working class.

The survey, however, was not simply a vehicle for gathering information, it was a tool that 9to5 used to construct a nonspecific health event by gathering that information. In other words, Project Health and Safety already speculated about the nonspecificity of office occupational health and the survey was a means to congeal this apprehension for others. The surveys Project Health and Safety used came in a variety of forms: some were large and others small, some were used to gather statistical data and others were sent out for their consciousness-raising effects alone, some were administered by Project Health and Safety and others were designed for workers to administer to each other in their own office buildings. The first large survey conducted by Project Health and Safety was funded by an OSHA grant in 1981. It was distributed to eight thou-

sand workers in the Boston and Cleveland areas, thirteen hundred of whom responded. The survey asked a hodgepodge of questions, covering such topics as stress levels, air quality, office environment, and office machines.[43] Its intent was not to uncover a particular disease or common problem underneath the variety of symptoms. Rather the survey was used to constitute the "nature" of office occupational illness—its diverse symptoms and varying conditions—by aggregating complaints into a single narrative and location. Thus surveys became not simply a way of gathering a diversity of information but a script through which diversity was arranged to illustrate a certain way of thinking about occupational health. On the heels of Project Health and Safety's work followed the publication of several popular books on office hazards, each appended by a comprehensive survey which workers could use to assess their own work conditions.[44] A survey distributed in a particular office building was sometimes used explicitly to organize workers around the conditions found there, sparking what came to be called "sick building" episodes.

While a survey could be used to make a sick building episode perceptible and then organize workers around it, the survey's power to transport "experience" outside the movement came from its ability to objectify and quantify.[45] With the survey, workers no longer actually had to talk to each other about their "experiences," instead they could anonymously check off predetermined categories on a sheet of paper. These anonymous responses were then tabulated to create a statistical profile. The survey need not uphold strict standards of scientific rigor to be effective; the statistical format of the survey was usually sufficient to signal a scientistic "objective" measure. By objectifying and quantifying, surveys translated the nonspecific nature of office pathology into a scientistic format and bureaucratic language socially invested with the power to measure and give shape to the material. With the survey, "experience" was turned from a naturalized "counterknowledge" into evidence to be analyzed with quantitative methods. In the process, the voices of workers were transformed, as was their claim to comprehend oppression more fully, to be replaced by a genre more palatable to the bureaucrat and better able to mobilize government resources. Thanks to surveys, a host of impressive numbers were now at 9to5's disposal. A congressman on the U.S. House Committee on Energy and Commerce could be told that "70% of the office workers surveyed complained of severe indoor pollution, poor

circulation, and irritating fumes."[46] Or a press release might announce that "4 out of 5 workers describe their jobs as somewhat or very stressful."[47] Project Health and Safety widely publicized the results of its surveys on the radio, in newspapers, at congressional hearings, and medical conferences. At the level of the building, a survey could be used to provoke a NIOSH Health Hazard Investigation.

Thus the survey became a powerful technology for making nonspecific problems perceptible to workers, management, and government experts. Unlike the air samplers, X-rays, and other instruments used by conventional occupational health investigations, surveys were able to capture a phenomenon that was nonspecific and only discernable in a cluster, not in an individual. This assemblage of gendered subjects, "experience," surveys, nonspecificity, and commonality out of variation created its own domain of imperception. It was incapable of detecting the kinds of causal proof workers' compensation boards demanded. Surveys could only materialize the contours and expression of an occupational health phenomenon, not the causes behind it. Thus the survey left unresolved the lingering question of whether office occupational health had psychological or material origins.

Stressed Out

In 1982, Project Health and Safety administered a large "Stress Test," distributing over forty thousand surveys largely through women's magazines.[48] The Stress Test, like 9to5's first survey, asked many questions, listing thirty-four possible sources of stress (including rate of promotion, deadlines, keystroke quotas, isolation, and sexual remarks) and signs of stress (high blood pressure, smoking, heart disease, miscarriages, and nervous agitation). Again, the survey was not intended to whittle stress down to a few well-delimited expressions. Instead it spread the effects and sources of stress as widely as possible, thereby constituting the capillary nature of office occupational health. These large surveys were then supplemented by small, self-administered surveys at meetings, in Project Health and Safety's newsletter, and in women's magazines in order to elicit a consciousness-raising effect.

Project Health and Safety's portrait of "toxicity in the details" was becoming complicated by the group's desire to expand the scope of work-

place assaults from chemical exposures to nonphysical social assaults. The term "stress" encapsulated this view that dispersed and chronic office exploitation manifested itself in bodily symptoms. "Stress," however, was a polyvalent term whose meaning the movement could not control. Project Health and Safety had to carefully negotiate the quagmire surrounding articulations of stress, for "hysteria" and "psychosomaticism" were psychological explanations closely tied to it. "Stress" was always in danger of being swallowed by "hysteria," a term used to explain away often vague physical symptoms as simply the result of a gender-based psychological disposition, perhaps even rooted in menstruation, rather than a response to adverse work conditions.[49]

Instead of granting stress a psychological foundation, feminist office activists wanted to couple stress tightly with the late-capitalist information age. "If loss of limb and back pain are the characteristic hazards of the industrial age," explained Karen Nussbaum, "then job stress is the characteristic hazard of the computer age. It's an insidious hazard, because it's hard to identify and as Americans we frown on what we consider to be a personality weakness. But stress is not in your head, it's in the office. And it could be a blight on society."[50] Stress still proved a slippery subject to define. Union WAGE described stress in vague terms as something that "cannot be measured the way the noise level or temperature can be and is connected to workers having some control over their working conditions."[51] How could one measure stress? How could one avoid its dismissal as an individual's psychological inability to cope with the pressures of the workplace?

The link between stress and office work was confirmed for activists in a series of epidemiological studies that lent their claims scientific credence. In 1975 NIOSH reported that office workers had the second highest incidence of stress-induced diseases of any occupational group, and in 1980 it stated that VDT workers had the highest stress levels ever recorded.[52] The Framingham Heart Study provided further evidence, calculating that women office workers developed heart disease at a rate two times that of other women workers.[53] Project Health and Safety activists were willing to point to these studies to lend credence to their claims, but they were not willing to accept the often accompanying analysis that stress was rooted in a gendered psychology. They mobilized a two-pronged strategy for explaining stress in nonpsychological terms: stress was a *biological* reaction to *social* conditions.

By pointing to social causes, office activists were using stress to argue for the necessity of restructuring office work. The members of the short-lived Nasty Secretaries Liberation Front (who later published *Processed World*) costumed themselves as computer terminals while handing out leaflets on stress to office workers in San Francisco. The pamphlet insisted that "stress is a social disease and it has a social cure . . . Stress is not a result of individual failings. It is the result of an irrational and inhumane society. The solution to stress will not be found in any special seminar or in any special meditation or exercise techniques. . . . it will take a deliberate restructuring of the social order to reduce it in any real sense."[54]

What elements of the "social order" should be restructured? The litany of social and work factors contributing to stress in the office were endless and diffuse. Every facet of workplace conditions was involved: from environmental quality issues (temperature and overcrowding) to labor relations (lack of respect and no promotions) to job design (constant sitting and repetitive work). Stress was the expression of the dispersed quality of office oppression, and thus its presence revealed failures of the social order, not the worker.

The proof of "stress," for feminist office activists, was in workers' bodies: shaky hands, headaches, nervous stomach, high blood pressure, ulcers, and menstrual-cycle irregularities, any of which led many women to turn to pharmaceuticals to get through the day. This corporeal evidence was accounted for by pointing to an underlying nonpathological biological mechanism that translated adverse social conditions into biological expressions; borrowing from the modern stress theory of Hans Selye the feminist office movement called on a biologically based "General Adaptation" response.[55] Jeanne Stellman, for example, explained stress in the following fashion: "We can think of the stress response as a mechanism for adapting to the environment. In fact, some scientists call the stress response the general adaptation syndrome, . . . the body responds to different inputs in an identical manner."[56] In other words, the causes of stress were nonspecific, but their effects on the body accumulated in a general way and could be seen in the bodily symptoms of stress. In its newsletter, 9to5 described stress similarly: stress is "the body's way of protecting itself from physical, mental, or emotional strain. Heart and breathing rates increase, muscles tighten, and stomach acid and adrenaline are released. After a brief stressful incident, the body quickly returns

Figure 15.
The office workers' movement and other critical commentators, such as Chris Carlson of the San Francisco zine *Processed World*, the artist who created this illustration (1981), portrayed stress as a normal biological reaction to an oppressive workplace. Courtesy of *Processed World*, www.processed-world.com.

to a balanced state. But constant stressful demands keep the body off balance, creating symptoms such as headaches, nervousness and fatigue. Prolonged stress can cause serious illnesses like high blood pressure and coronary heart disease."[57] Through such descriptions, feminist labor activists attempted to show that stress was a normal biological reaction, rather than a pathological, psychological one: stress was not the result of an abnormal individual's psyche but a normal response to unhealthful conditions (see Fig. 15).

The meanings circulating under "stress," however, were impossible to fix under this two-pronged strategy. In the late 1970s and in the 1980s, the term was used widely to describe the anxiety of living in the late twentieth century.[58] Popularly, and in contradistinction to the NIOSH studies, stress was most often associated with elite jobs: executives, careerists, and professionals. A stress industry blossomed catering to the stressed-out, high-income market, providing hordes of advice,

self-help books, exercise, hobbies, diets, and biofeedback therapies. The self-help industry around stress focused on changing the individual, rather than social conditions.

Even feminist labor activists had difficulty entirely avoiding individualistic accounts of stress. Their own advice had a tendency to fade into platitudes indistinguishable from popular rhetoric. While 9to5's *The Working Woman's Guide to Office Survival* noted that the only real solution to stress was to eliminate its sources through workplace organizing, the majority of its advice and column inches were dedicated to visualizing, stretching, dieting, hobbies, and expressing yourself.[59] Office-related stress was even included in a chapter of *Jane Fonda's Workout Book*—a succinct expression of feminism as self-discipline rather than social change.[60]

Stress remained a risky diagnosis. Yet the claim that the dispersed quality of office oppression was materially revealed in the biology of office workers was a radical twist.[61] Bodies did not react only to low-level chemical exposures but also to unjust social factors. Through the survey, 9to5 captured these bodily reactions while leaving their causes dispersed and open.

Toward Sick Building Syndrome

There is still no single "disease" associated with office work. Instead of finding a shared affliction such as black lung or silicosis, the women office workers' movement materialized a nonspecific phenomenon that clashed with juridical, medical, and compensatory institutional demands for proof of linear causality. The women office workers' movement was only able to capture the symptomatic expression of workplace conditions by simultaneously leaving the question of their causal root uncertain. Despite this dilemma, the women office workers' movement was effective in rendering perceptible a new kind of occupational health event that workers could, and would, organize around later—sick building syndrome.

Sick building syndrome was not a "disease" at all but was defined by occupational health experts as a phenomenon that manifested as a multitude of symptoms, mostly minor, associated with a particular office building and for which no single cause could be found. The symptoms

associated with SBS not only varied from episode to episode, they changed from worker to worker within a single episode. Moreover, the proof of sick building syndrome was not in a blood test, air monitor, petri dish, or other form of "objective" scientific measure; it lay in the density of worker complaints, first as expressed through worker protests and later as captured by experts' surveys. The numerous grassroots protests around individual problem buildings kept the issue of office occupational health in the limelight.

The phenomenon of sick building syndrome, however, has developed in contexts quite different from those generated by the women office workers' movement. With the dramatic rise of unionism in the public sector and a corresponding greater willingness to organize women by established organizations like the AFL-CIO, sick building syndrome has become untangled from the extra-union women office workers' movement and its feminist character. Karen Nussbaum became exemplary of the changed status of women office workers in unions—first, as head of the Women's Bureau in the U.S. Department of Labor in 1993, and then as director of the Working Women's Department at the AFL-CIO. She became the highest-ranking female official in the U.S. labor movement.[62] Though the rank and file of clerical unions might be female, SBS was rarely figured as a women's issue even though the role of gender in SBS was hotly debated among occupational health professionals and in courtrooms. Why did episodes primarily affect women? Did this indicate a gendered psychological cause? Was SBS caused by cumulative chemical exposure or mass hysteria?[63]

The emergence of office occupational health problems cannot be understood simply as the result of newly pathological workplace conditions or as the discovery of a previously hidden problem by experts, or even by workers. The problem was materialized by methods, tools, and actions assembled by workers that together made possible a kind of occupational health event otherwise unmaterialized. The problem could be materialized by office workers in the way it was because ventilation engineers, office designers, and corporate managers had already physically made office buildings into a certain kind of place. Through the assemblage put together by office workers, office health problems became a phenomenon about which things could be said and done.

Yet this materialization, like all others, carried its own set of constraints, for the assemblage of tools and practices the women office

workers' movement used only performed in certain ways. On the one hand, while these activists articulated nonspecific health events, they could not connect bodies and work conditions in the terms of causality and specificity that health institutions conventionally demanded. On the other hand, by connecting office work to bodies primarily as health events, rather than as acts of oppressive labor conditions, the feminist office workers' movement unwittingly set the stage for the depoliticization of office occupational health events through the diagnosis of sick building syndrome. The next chapter examines in detail the coming into being of sick building syndrome in the clash between industrial hygiene experts and practitioners of popular epidemiology.