



Home Sweet Office

Comfort in the Workplace



Comfort is as elusive as the blind men's elephant. Is it long and skinny like a snake or round and thick like a tree? Is it a neutral state—the "absence of awareness?" Or is it a positive sense of ease and contentment? Is it a noun (comforter), or is it a verb (to comfort)? Is it an outcome or a process?

Most people can recognize comfort when they feel it, but they tend to describe the feeling in similes and metaphors, as "like an 80-degree day with a slight breeze," or "like lying in bed on a rainy day with nowhere to go." Comfort is a slippery concept, having evaded watertight and universal definition for many years in disciplines, such as nursing, that are all about delivering comfort.

In the workplace, the notion of comfort is woven within the fabric of the headliner issues, such as ergonomics and acoustics, as perhaps a by-product of the right chair or a good sound management system based on the frequency of the human voice. Often, however, the goal in these cases is not so much to produce comfort as to avoid the cost of discomfort and lost productivity from, say, repetitive stress injury. As a positive feeling of ease and well-being, comfort, if it is mentioned at all, is a happy accident. However, if comfort in its most holistic sense were a goal rather than a "nice to have" option, not only would it address the headliner issues, but it would also touch other areas that affect the bottom line, such as productivity and commitment to the organization.

HermanMiller

Worker comfort directly affects important predictors of operational efficiency, such as productivity, job satisfaction, retention, well-being, and at its most basic level, of course, worker health.¹ So it makes sense to approach comfort from a holistic perspective and to attend to the factors that make people comfortable in the workplace. Rather than viewing comfort as one of many desirable outcomes, perhaps this more holistic notion of comfort might itself become the focus.

How the Professionals Define It

Long before business executives and facility managers pondered the significance of comfort, nurses have sought to evoke it in patients and to define it for their discipline. In her 1859 *Notes on Nursing*, Florence Nightingale recognized that patients who were comfortable tended to regain health. Over a century later, research verified that “comfortable patients heal faster, cope better, become rehabilitated more thoroughly, and die more peacefully than do the uncomfortable.”²

Comfort, however, is a subjective state: It can’t be inserted in an IV or prescribed as a pill. It is what the patient (or worker) says it is. “Comfort measures are not comfort measures unless the patient perceives them as comforting.”³

Not only is it subjective, but it is also dynamic and changeable. I may be comfortable now, but if the temperature drops ten degrees, I will be uncomfortable. Dynamic and changeable, comfort is filtered through perception, personality, and past experience. When the temperature drops ten degrees, I may feel more uncomfortable than you because I am more sensitive to cold, and besides, there was that frostbite incident when I was 12....

And not only is comfort subjective, dynamic, changeable, and filtered uniquely, it is also holistic—the body is influenced by the mind, which is affected by the emotions. Psychological discomfort, such as anxiety, may affect physical health, and conversely, if I am shivering with cold, I may be wondering anxiously if that bus will ever come or if I am at the wrong stop. And if I am shivering in my workstation, I certainly won’t be working very efficiently, and I may be considering another job as well.

In her Comfort Theory⁴ model, Katharine Kolcaba, PhD, RN, identifies three states of comfort: relief, which is the alleviation of discomfort; ease, which is a neutral

state of contentment; and renewal (later changed to transcendence), which refers to the active, hopeful aspect of comfort in the sense of its root word, *confortare*, meaning “to strengthen.” Since the days of Florence Nightingale healthcare has come to depend much more on technology and pharmaceuticals, with the result that finely tuned attention to patient comfort has suffered since the days when comfort was often all there was to give.

As in healthcare, comfort in the workplace is awkwardly conceived and poorly defined. It may be mentioned tangentially in studies and surveys as one of several outcomes (it’s always good to make people more comfortable), but it hasn’t received much attention in its own right, nor is its significance well understood.

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Consider, however, that in a survey conducted by Herman Miller, Inc., 500 office workers ranked “having an office that is comfortable to work in” as the most highly valued workstation attribute across all worker types.⁵ Additionally, a peer review of earlier data found that the work environment

was “very important” in determining job satisfaction, which in turn was a “highly salient antecedent of turnover intent.”⁶ The message to employers: pay attention to your workspace—it could help retain valued employees. Because, as yet another study suggests, workers can like the job, yet “be quite unhappy about their work environment.”⁷

So, rather than groping in the dark, how might the concept of comfort be applied to the work environment?

Dr. Jacqueline Vischer, professor, department of environmental design, University of Montreal, has created a model that ranks comfort into an ascending continuum of physical, functional, and psychological comfort, which roughly parallels the Kolcaba model of relief, ease, and renewal. Viewing comfort as a tripartite continuum can become a way to assess the overall quality of the work environment and to prioritize change according to what would have the greatest impact.

At the foundation of the continuum is physical comfort, which is the nonnegotiable prerequisite of the work environment. “If you don’t have this, there’s no point in talking about functional or psychological comfort,” says Vischer.⁸ Physical comfort is addressed by things such as building codes and industry standards. As such, it is “critical to work effectiveness, satisfaction, and

physical and psychological well-being. Uncomfortable conditions in the workplace—too hot, too cold, too noisy, too light, too much glare—restrict the ability of workers to function to full capacity and can lead to lower job satisfaction and increases in illness symptoms.”⁹

Various aspects of physical comfort, such as temperature, lighting, acoustics, and ergonomics, have been researched extensively over the years, so standards for those areas affecting health and safety are fairly well defined. Yet, by their nature, standards are meant to satisfy the majority of workers, leaving perhaps as many as 20 percent of them uncomfortable or dissatisfied. “There is no one temperature and humidity level at which everyone is comfortable.”¹⁰

To underscore just the effect of temperature on efficiency, a study at Cornell University’s Human Factors and Ergonomics Laboratory found that workers were significantly more productive at warmer temperatures. At 68 degrees—the temperature recommended by the federal government to conserve energy—workers performed monotonous keyboarding tasks 54 percent of the time with a 25 percent error rate. When the temperature was raised to a toasty 77 degrees, keyboarders worked 100 percent of the time with a 10 percent error rate.¹¹ While such diligence might be unsustainable at that temperature after lunch, the eye-popping difference in the numbers points out the extent to which physical comfort can impact productivity.

Even with the preponderance of information about such critical areas of physical comfort, substantial minorities of workers still say they are uncomfortable.¹² This may be because the range of individual preferences is too complex or too costly to address or because organizations are simply not paying enough attention to basic physical comfort. Clearly, many workers would be more comfortable if they had some control over their immediate environment—if they could adjust the heat or turn on a task light, for example. But “very few buildings or workstations enable occupants to control lighting, temperature, ventilation rates, or noise conditions. Although the technology is largely available to do this, the personal comfort systems have not sold well in the market place, even though research...shows that personal control leads to significant increases in comfort and work performance.”¹³ Yet, since physical comfort is so subjective, and since productivity is so tightly linked to physical comfort, it makes sense to pay attention to (and invest in) systems that offer some personal



control over the workspace. According to a Herman Miller research summary “...having some control over the workspace can improve comfort and the ability to get work done and reduce stress. This, in turn, can lead to greater productivity and better health.”¹⁴

Attention to physical comfort takes on greater urgency when “people costs” are taken into account, since they are by far an organization’s biggest expense: Salaries alone account for 84 percent of the cost per square foot of a commercial building. (The other expenses being rent, maintenance, and energy.)¹⁵ Therefore, the expense invested in creating a more comfortable environment would be recouped by even a small increase in productivity.¹⁶ And since the quality of the work environment is strongly linked to both job satisfaction and productivity, it makes sense to pay attention to critical areas that support physical comfort—temperature, lighting, acoustics, air quality, and ergonomics.

The Right Tools: Functional Comfort

Kolcaba’s Comfort Theory progresses from relief, which occurs when discomfort is alleviated, to ease, which is “the state of calm or contentment.” Relative to the work environment, Vischer’s model moves from physical comfort to functional comfort, wherein the work environment becomes a tool that enables and supports individual work and collaborative teams. “There are fewer standards and practices to ensure functional comfort than there are for physical comfort,” writes Vischer, “but it is clear that the more the environment supports people’s tasks, the more effectively they work.”¹⁷

A functionally comfortable workspace responds to the user’s needs and the job’s demands. For a creative team, that workspace might be extremely mobile and flexible with mobile whiteboards, tables, and chairs; yet, a group of researchers or software developers might need more privacy for focused work; and a collaborative team might need a variety of properly equipped meeting spaces nearby.

If that creative team were sequestered into rows of private offices, or that software developer could overhear (or be drawn into) every passing conversation, or that collaborative team had to canvass the office for an open huddle room every time it needed to meet, the result would be frustration at best and lower productivity at worst.

So, rather than a neutral state of unawareness, functional comfort is an active interaction with the environment. The environment can support and enable work—or stifle and impede it. The workspace needs to be flexible enough to respond to the changing needs of teams and individuals, and it needs to provide tools appropriate to the job its workers are being asked to do. Furthermore, at the functional level, rather than standards that are gauged with thermometers and sensors, the most useful information about the comfort of the workspace is elicited by user feedback.¹⁸ People not only know when they're comfortable, they also know when they don't have the right tools for the job.

In Herman Miller's survey of 500 workers, four out of five attributes that were consistent predictors of a "high comfort" workstation related directly to functional comfort:

- The capability to support space for two or more people to meet
- The capability to control interaction with those around me
- The option to place the computer in the most suitable location
- Having a place to store my personal items



Workstations with these attributes were more likely to be considered "very comfortable" by survey participants.

It may seem intuitive to provide such basic tools as equipment that is appropriate to the worker's job, meeting spaces for groups that are expected to work together, and private areas for those who are expected to do focused work. But this consciousness requires thoughtful awareness and good design in order to leverage the workspace as a tool that is every bit as critical to performance and productivity as a computer or a telephone.

One study that quantifies the link between productivity and functional comfort is an extensive survey of a large telecom company after a redesign of two locations. In this study, Herman Miller researchers found that workplace design had "a small but consistent and real influence over key business performance measures," such as a reduction in the time it took call center workers to complete "after call work" (6 percent), an increase in superior ratings on customer service surveys (16 percent), and an increase in job satisfaction (9 percent).¹⁹

The Psychological Factor—It's All in the Mind

While physical and functional comfort are linked to productivity, psychological comfort relates to uniquely human needs, such as the ability to control elements of one's job, to personalize one's space, to set boundaries, and to connect with nature or beauty. While psychological comfort is difficult to quantify, it addresses some intensely human drives.

Control, for example, is related to higher levels of job satisfaction and psychological comfort. This could mean control over the worker's immediate physical environment, such as switchable lights or a device

that gives personal climate control, or it could mean controlling aspects of how the job is done. Studies support the notion that some level of personal control over ambient physical conditions—temperature, light, noise—make workers feel more comfortable, happier, and more productive. While the research isn't totally consistent in this area, the perception of control over one's work is linked

to both psychological and physical health. In a review of literature, researchers found that "high levels of perceived control are associated with increases in job satisfaction, commitment, involvement, performance and motivation, and with low levels of physical symptoms, emotional distress, and absenteeism."²⁰

In addition to controlling one's work, the ability to create a personal space and to control access to one's immediate environment is another contributor to psychological comfort. Territoriality is a human need over which wars are waged, both in the office

and among nations. In the office, territoriality operates in at least two ways: in the attempt to control visual, auditory, or physical interruptions and in the nearly universal urge to personalize one's space.

Interruption is perceived as an invasion of personal space, and the inability to control it produces frustration and territorial behavior, which can range from complaining about confidentiality to erecting blockades. While everyone doesn't need a room with a door, good design along with some visual cues can help employees feel more in control of their space. For example, a workstation that allows users to control the level of privacy in their immediate environment and to signal their availability to passersby would support that very important sense of personal control.

Territoriality also concerns the human need for self-expression. From college students to Martha Stewart devotees, the urge to personalize is ubiquitous. In the workplace, personalization states "I'm here; I exist." In fact, the first "high comfort" attribute (of the five in the Herman Miller survey mentioned above) was "an office that allows me to express my individuality." In an introduction to her research on the subject, Meredith Wells, PhD, asserts that personalization allows employees to express status and personality, manage stress, express emotions, control their workspace, and adapt to new environments.²¹ The ability to personalize is so innate and adaptive that approximately 70 to 90 percent of employees do it, even in the face of organizational displeasure.

Organizations that impose standardization and clean desk policies run counter to this universal impulse, and such policies may also undermine feelings of commitment to an organization. When employees have some control over how their job is done and the way their personal workspace looks, they tend to feel greater loyalty and commitment to the organization. "People who are informed about workspace-related decisions, and who participate in decisions about their own space, are more likely to feel territorial about their workspace and to have feelings of belonging and ownership."²²

And in the end, the big payoff to an organization of those feelings of loyalty and commitment may well lie in higher levels of employee retention. Although the evidence isn't airtight, some studies suggest a

link between personalization, commitment, and employee retention. For one thing, lack of commitment to an organization is associated with high turnover.²³ Wells's research found that, although highly committed employees do tend to personalize their workspaces more, a high level of personalization may also be associated with employee status. While it didn't explicitly deal with personalization, one Herman Miller study reported a 19 percent improvement in the ability of a newly designed space to retain talented employees.²⁴

The effect of beauty—the aesthetic element of a work environment—may be the most unquantifiable contributor to psychological comfort in the workplace.

Finally, the effect of beauty—the aesthetic element of a work environment—may be the most unquantifiable contributor to psychological comfort in the workplace. The effect of beauty may be hard to measure, but that doesn't make it any less compelling—or important. This aspect of psychological comfort

could mean pleasing architecture, visual interest, art on the walls, or natural elements, such as a fountain, plants, or an aquarium.

Florence Nightingale noticed long ago that a patient who could look out the window onto a natural scene recovered more successfully. This effect has been replicated in several studies since her anecdotal observation.²⁵ Similarly, workers can be reinvigorated and refreshed after a period of intense work by spaces that provide a feeling of sanctuary or that introduce natural elements.

Exposure to natural light is an important contributor to psychological comfort with well-documented effects. One study found that 80 percent of users who were located near windows were satisfied with their environment versus 55 percent who were located farther from the window.²⁶ Access to natural light during the workday seems to affect mood and may mitigate the effects of seasonal affective disorder. The beneficial effect of natural light on health is so compelling that European Union directives on workplace health and safety state that "workplaces must as far as possible receive sufficient natural light..." Germany's Workplace Ordinance goes even further, requiring that each worker have direct visual contact with the outside world, a law that has influenced the shape of German buildings ever since.²⁷

A body of work by Judith Heerwagen and Betty Hase suggests that building interiors that mimic natural elements, such as canopy-like areas (refuge) interspersed with open sight lines (prospect) or small

enclosed zones within expansive spaces are very appealing and comfortable to the human animal. "A growing body of research shows that building environments that connect people to nature are more supportive of human emotional well-being and cognitive performance than environments lacking these features," writes Heerwagen.²⁸

In one highly controlled study, when plants were introduced into an otherwise bland office, subjects thought the room was more comfortable, and they felt "at ease." Interestingly, they also performed more poorly on a rote letter-identification task than subjects in the same dull room without the plants.²⁹ While, according to this study, plants might be too distracting for monotonous work, natural elements can provide other important benefits—improving indoor air quality, providing a sense of refuge, improving perceived privacy, and creating boundaries.

So, rather than regarding comfort as a side effect of an ergonomic workstation or a well-designed HVAC system—as a desirable, but often accidental, benefit—an overarching concept of comfort covers many of the concerns and complexities of a work environment. Physical comfort—the quality of light, air, temperature, sound, and ergonomics—is vital to job satisfaction and productivity. If employees are physically uncomfortable or if the building is unhealthy, work doesn't happen well.

Functional comfort also affects productivity and job satisfaction since it deals with the tools an individual or group needs to work effectively. Providing workers with inappropriate tools—or none at all—is like asking a carpenter to build a house with fishing tackle. In addition to a bad job, the result is also stress and frustration. Functional comfort enables workers to interact effectively with their environment.

Psychological comfort addresses the human need for control over the job and the workspace, and, ideally, the ability to work in a space that provides visual interest or natural elements. While psychological comfort may not directly impact productivity, it does affect mood, cognitive function, and feelings of loyalty and commitment.

Finally, given the big impact on organizational effectiveness that accompanies even small improvements in productivity, attending to the comfort of a workspace can measurably affect an organization's bottom line. In that sense, then, comfort is just good business.

Notes

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- 15 "Productive," *WBDG Productive Committee*, 3 April 2007, *Whole Building Design Guide*. <<http://www.wbdg.org/design/productive.php>> (accessed 25 April 2008).
- 16 "A 1% productivity savings can nearly offset a company's entire annual energy cost." *Ibid*.
- 17 Vischer, Jacqueline, *Space Meets Status: designing workplace performance*, (New York: Routledge, 2005), 84. 2005.
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- 21 Wells, Meredith M, Luke Thelen and Jennifer Ruark, "Workspace Personalization and Organizational Culture: Does your workspace reflect you or your company?" *Environment and Behavior* 39, no. 5 (2007): 616-634.
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- 24 "...the improved appearance and function of the new space has had a large consistent impact on employee's perceptions—in particular the ability to retain talented people." Herman Miller Workplace Study (2006).
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