



The Invisible Gendered Culture of Engineering

By Lara K. Schubert, P.E.

In my first year of engineering work, my boss asked me to write for the company-wide newsletter, addressing this question: How does a woman succeed in a male-dominated field? My response was immediate: The same way as a man! This fiery piece insisted that one can choose to be affected by external pressures or can overcome them, and that women could certainly excel in the field.

At the time I was responding to the idea that there are innate differences in ability between men and women, and so I did not acknowledge any significant difference in experience. After more than four years of working as a structural engineer, I decided to pursue graduate studies in the humanities. While I am still a part-time engineer, I am also a doctoral student specializing in feminist studies, an insider-outsider who can now see things that were invisible to me before. In this piece, I will elucidate the gendered culture of structural engineering.

Mary Daly's quote asserts that a status quo exists. If we simply add women and stir – or incorporate any other under-represented group – substantial changes are unlikely. But altering the gendered status quo is much more controversial. The first step is recognizing the prevailing culture. Think about your office culture and the professional organizations in which you participate: can you identify prevailing values that remain largely unspoken and invisible?

When I started working, I found that I had to adjust to a whole new way of thinking and being in the world. When ways of acting and types of reasoning that are valued in a field of study or profession align with societal expectations for a particular gender, we can say that its culture is gendered. It is important to ask two things: Does this culture improve or hinder our work? Whom does it benefit and whom does it limit or exclude?

My experience is not an archetype but may help to unearth systems of thought.

When I entered the field of structural engineering, one challenge was the analytical approach to everything. Logic was the primary value – not just in design, but in

Real boundary living is a refusal of tokenism and absorption, and therefore it is genuinely dangerous.

—Mary Daly

all aspects of office life. All assertions were open to being logically challenged. At lunch, when we talked about politics or vacations or anything really, we had to have a good argument and show our colleagues that we were very smart. This was all part of the persona. To be an engineer is to be an expert in everything – not just to clients, but also to fellow engineers. This new pressure to impress was exhausting and something that I had to work hard at keeping up.

Women in other predominantly male fields of science, technology, and mathematics have had similar experiences. For instance, Evelyn Fox Keller articulates a similar phenomenon from her time as a graduate student in theoretical physics at Harvard in the 1960s: “I didn't fully understand then that in addition to the techniques of physics, they were also studying the techniques of arrogance. This peculiar inversion in the meaning of humility was simply part of the process of learning how to be a physicist. It was intrinsic to the professionalization, and what I might even call the masculinization of an intellectual discipline.”

She calls this masculinization because such traits are more acceptable for males in our society. Whether or not you agree with this, it remains important to consider how different groups of people are socialized – think of people's expectations of mothers vs. fathers, and portrayals of women and men in film and advertisements. For whom is lack of humility more socially acceptable? For whom is it more detrimental?

In my own experience, the culture of structural engineering was gendered in other ways, though at the time this was largely invisible to me. When I joined a mid-sized engineering firm I was the only female engineer there. An image that sticks in my mind is my first tour of the office. As I shook hands with each engineer at his desk, I noticed that most – in my mind it was all – of them wore white-collared

button-down shirts. This may seem comical in retrospect, but it made a real impact. I resolved that to be respected by my colleagues I would wear collared, button-down shirts and did this consistently, only changing my strict self-imposed policy after transitioning to part-time.

The significance of an implied internalized dress code cannot be overstated. This is an outward, visible way in which the culture is gendered. In Rosemary Tong's book, *Feminist Thought*, she criticizes “articles written for women about dressing for success, making it in a man's world, being careful not to cry in public, avoiding intimate friendships, being assertive, and playing hardball,” which are counter to the positive aspects of the abilities that women are socialized to hone, like cultivating community.

This is not to suggest that all women are inclined toward “feminine” traits and all men are inclined toward “masculine” traits. While I value abilities that are expected of women, I find them difficult to cultivate. However, choosing these virtues and reflecting on our values is imperative to enhance the field of structural engineering. Rather than opening it up to women, which has already happened, the culture of the profession should be open to transformation.

My next column in this space will show that this culture makes it particularly difficult for women to rise to the top. The challenge is to innovate our own professional culture. If we call into question its gendered nature and consider new ways of being structural engineers, our field might truly flourish. ■

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