

WOMEN UNDER PRESSURE



Women Under Pressure

Doing Your Best When it Matters Most

Executive Summary

Women have a brain based difference that predisposes them to weigh more variables, consider more options, see more context and visualize a wider array of solutions and outcomes to a problem when they or their organizations are under pressure. Research has shown, that, organizations which leverage this unique strength of decision making and have more women in top leadership positions, have stronger relationships with customers and shareholders, and a more diverse and profitable business. Also, they outperform the competition in every measure of profitability: equity, revenue, and assetsⁱ.

Unfortunately, many companies do not leverage this unique contribution of women. Either because of female underrepresentation in organizations or because of the pervasive, negative effects of pressure. Pressure, if unmanaged, can inhibit leaders, whether male or female, from performing at their best. Research we conducted on over six thousand females to support our New York Times bestselling book, *Performing Under Pressure, The Science of Doing Your Best When It Matters Most* (Crown, 2015)ⁱⁱ found that women face a significant second layer of pressure in the workplace that has the potential to diminish their influence and their careers. When a female leader does not possess the skills and insight to effectively manage this extra pressure, she is not as able to add the kind of value to an organization that she otherwise could bring.

This white paper focuses on insights and strategies to help female leaders perform and lead more effectively. By doing so, pressure moves from being a barrier to their success, into being a competitive advantage that allows them to leverage their brain-based difference.

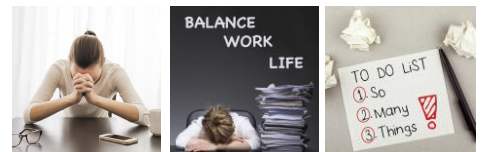
As a case study, we examined the pressure situation faced by a CEO of a publicly-traded company and highlighted three key strategies that will help women take a more intentional, less haphazard, approach to pressure:

1. Leverage their brain based strengths of decision making under pressure
2. See pressure as an opportunity rather than a crisis or threat
3. Build confidence

We also delve into the emerging and exciting science of pressure and highlight additional important insights, including:

- What is *stereotype threat* and how does pressure have the potential to unleash this powerful force, causing women to either become paralyzed by pressure situations or avoid them altogether.
- How the two ways of '*seeing*' a pressure moment directly affect an individual's physiology and neurochemistry, putting them in either a better or a worse position to perform and lead under pressure.
- Research into the link between effective leadership and neurochemistry, highlighting how this is yet another lever which women can control in order to be effective when it matters most.

Finally, we provide a Game Plan for Pressure™ that you can use as a template whenever you are preparing for a pressure moment. The tools described in this white paper are available for any woman at any level in an organization. With a committed approach, these strategies have the power to help you walk into your pressure moments with more confidence and belief, to position yourself for success, and to add a unique and valuable contribution to your organization and grow your career.





Understanding the Challenge: The Second Layer of Pressure

Data from our original study of over six thousand female leaders from around the world, as well as working with thousands of other female leaders across the globe over the last eighteen years, have found the pressure situations most commonly experienced by women involve three key areas:

- *having too much to do and too little time,*
- *managing change; and,*
- *being able to integrate and balance both work and life challenges.*

While on the surface, these three may not surprise you. But in looking deeper we identified an additional layer of pressure women face that men do not. Here is a sampling of that extra layer of pressure heard from voices of women we have studied who are at the very top echelon of achievement in their careers:

- *"I feel the pressure of not being able to make one mistake. It feels like because I am the only women at my level, I am carrying the flag for all other women in my company and I have to be perfect."*
- *"Often as a woman one of the biggest challenges I face is that there are not as many women in leadership roles that can act as a support group or a network for me or other female leaders to help me grow."*
- *"I sometimes feel like we have to emulate the men's role to get ahead. For instance, in contributing to an argumentative conversation, I find if I am not outwardly forceful, I am perceived as weak and unfairly judged. Ironically, if you use the same style as a man, you will be called 'controlling' and 'shrill'. There are simply more derogatory comments towards women leaders if they stand up and use their voice than there are for men. After a while this wears you down."*
- *"I still find it hard to understand: why are women still underpaid and underrepresented in senior positions in organization? How does this affect status and influence? And vice versa."*

While this is just a sample of voices, it is clear that women face an additional layer of pressure: they consistently have less of a built-in network and more challenges or obstacles to gain status in organizations.

They can feel alone as the only woman on a team, senior or not, and whatever style they use may not fit the established norms. They face a juxtaposition of both being underrepresented and thus less supported, yet simultaneously being more visible than men and garnering more attention simply on the basis of being female (because there are so few in the room). This creates a pressure where *'more' feels on the line* with every decision they make or behavior they engage in.

In addition, there are the many subtle and not so subtle ways that patriarchal cultures still exists in many organizations. For instance, according to one of our research participants: *"One of the lawyers that works for our company used to work for a large law firm downtown. When she came back after her second maternity leave she was told by a senior partner that the firm would 'forgive two maternity leaves but they won't forgive a third'"*.

And finally, yes, by and large, women also have pressure at home that rivals what they experience at work: many women still assume primary domestic responsibilities either by choice, because of internalized cultural expectations, or even guilt. Men simply do not face this type of pressure. Now, to be fair, men do feel their own unique type of pressure: first and foremost to be a provider (of course, more and more women also experience this pressure) as well as the expectation to not show weakness or express emotion lest they appear weak.

However, looking at the additional pressure women face, is it any surprise to learn that more women are choosing to leave the corporate world to start small businesses than men, or leave entirely? The concern for organizations should be about what is lost when they are not benefiting from the unique talents and viewpoints that women can bring to their organizations, especially when they face pressure.

Pressure at Navigant: A Case Study

On a rainy Saturday night in June, 2013 Julie Howard, chief executive officer and a member of the board of directors of Navigant Consulting, received a call alerting her that there was going to be an article in the newspaper the next day mentioning her company and its connection to the Moreland Commission investigation. The Moreland Act was enacted to investigate the response, preparation, and management of New York's power utility companies to several major storms impacting the state, including Superstorm Sandy and Hurricane Irene the year before. Navigant is a public company consulting firm that specialized in helping organizations manage critical business risks in energy, health care, construction, and financial services. The Long Island Power Authority (LIPA) is one of those organizations. Navigant has provided services to LIPA for years.

What Julie was told in that telephone call shocked her: the article was going to state that the Moreland Commission's report raises, among other things, questions about some of Navigant's work for LIPA. Furthermore, that the commission was referring these questions to federal prosecutors in

Brooklyn to determine if criminal charges were warranted against officials of LIPA or against Navigant. You can imagine how concerned Julie felt when she hung up the phone. She was absolutely certain that Navigant had not engaged in any wrongdoing and was confident that her company would ultimately be vindicated. But the damage to Navigant's reputation in the interim could be significant.

What Julie was experiencing was a classic high-pressure situation. Like all leaders who face pressure-filled moments, Julie was on the spot. She needed to manage the pressure of the situation in order to marshal Navigant's resources, make good decisions, and find a way to achieve a positive outcome. And she only had a few hours to come up with a plan. What to do? Hopefully, *not* what we have found most leaders do when they face similar pressure situations like Julie.

One of the biggest surprises from our study is how *haphazard* an approach most individuals, both women and men, take to managing pressure.

Many walk into their most important performance moments having done virtually nothing to prepare themselves to be at their best. To be clear, it is not that women don't prepare. Of course, they do. Research indicates women care a great deal about being properly prepared and often exhaustively but the important question is *how do they prepare*ⁱⁱⁱ?

What we found in our research is that most women over-prepare (and get anxious about) the finer details of what they want to say in an important presentation, for example, but vastly under-prepare *themselves*. They worry so much about getting the details right on the features and benefits of their product or ideas or content that they overlook preparing themselves properly (men, in contrast, have more of a habit of trying to 'wing it'). What we found is that women often get stuck on worrying about being perfect, which audiences actually care far less about, but which causes them to experience more fear prior to the presentation, more unmanaged anxiety during the presentation and, even if they get all of their facts and details straight, leave with more regret after the presentation, having not performed in the way they had hoped.

Fortunately, it doesn't have to be this way. If you commit to using and practicing the strategies described in this paper you will prepare yourself more intentionally and strategically, and will notice that you walk into your pressure moments or situations with more confidence and more trust that you have everything you need to be successful.

For Julie at Navigant, her first thought was to call the chairman of the board right away. Once she stepped back and strategically thought through it, she realized she would be better off gathering more information and coming up with a plan to present to the chairman. This would also allow her to leverage the difference on how her brain works in deciding how to best respond to this pressure situation.

Strategy #1: Leverage your brain based strengths of decision making under pressure

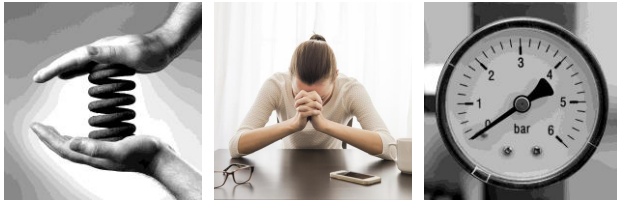
A big part of the pressure Julie felt came from juggling the expectations and needs of the board, the investors, the employees, the clients, and her own family and friends. Keeping all of these interests in mind as she managed this pressure-filled situation would be very challenging. Fortunately, based on our current understanding of brain science, it is something that female leaders like Julie have a unique potential to fulfill.

The hippocampus is a key area of the brain when it comes to memory and decision-making. In women, the hippocampus is larger and when under pressure it receives more blood flow. Together these are important because it helps women to be more effective at processing and coding emotional experiences into their long-term memory, as well as linking past experiences and recalling intricate physical details^{iv}.

Women also have a more fully developed prefrontal cortex, the executive function part of the brain, where the 'context' of a situation is processed.

Finally, women's brains have nearly ten times more white matter than men's and the structure connecting the left and right lobes (corpus callosum) is 10% thicker, on average, in female brains^v. The benefit of these differences is that under pressure women tend to weigh more variables, consider more options, see more context, connect more brain areas and visualize a wider array of solutions and outcomes to a problem. Men, on the other hand, when under pressure, have a greater tendency to develop tunnel vision, the tendency to focus exclusively on a single or limited goal or point of view while ignoring everything else around them. While there can be a very real benefit for men (and organizations): the ability to focus on short term results such as making quarterly 'numbers', a focus of many organizations, it is not always helpful over the long term or when there is more complexity in a situation, such as the pressure of change or the kind of situation Julie faced.

Keeping everyone engaged, managing resistance and addressing each stakeholder's needs in the middle of significant change, for instance, is not easy and requires the ability to avoid rigidity. When a leader falls prey to tunnel vision, there are at least two consequences: they miss valuable information that might make a change initiative (or any project) more successful, and, they lose the engagement of key stakeholders who don't feel like their point of view was taken into consideration in the process. This goes far beyond women being 'more empathetic' as one of their stronger contributions to leadership or a company's culture. This is about women enabling an organization to be more effective at some of the most mission critical parts of the business: continually changing to meet the needs of clients and the changing competitive



landscape to stay competitive while at the same time keeping key stakeholders engaged along the way. (A helpful take-away for men who take our programs is asking themselves: what extra variables might I be missing as I make this decision or as I consider a situation? Am I getting stuck in tunnel vision and potentially missing important context? You would be surprised at how valuable this simple question can be for male leaders). Clearly, a balance of both male and female views is optimal.

Unfortunately, many organizations lose the unique contribution and value of women because they either have too few women in their ranks or they are not aware of how pressure affects decision making. This oversight can be observed when it comes to teams, an important place where many organizational decisions are made and where we will turn our focus.

(i) The Trap of Teams Under Pressure

In extensive studies of teams at professional service firms, Heidi Gardner of Harvard Business School found that teams tend to defer to high-status members, at the expense of using expert team members^{vi}. This finding would be analogous to a team of physicians ignoring the expertise of the best surgeon in the group and deferring to another doctor who is not a specialist in the field but is a senior on the staff. Teams tend to do this under pressure when they become caught up with the risks of failure, rather than with the requirements of excellence. As a result, they revert to safe, standard approaches, instead of offering original solutions tailored to clients' needs. In effect, the pressure is causing them to play it safe rather than take a risk.

This risk-aversion can have a direct impact on women getting their voice heard on a team because they often don't have the highest perceived status on a team, even when they possess significant expertise. So as pressure increases, team members defer to status over expertise (women do it as much as men) with the consequence being that a woman's unique contribution can be lost. Their capability to keep in mind multiple stakeholders, and a wide array of variables is overlooked from the decision in the change process or the key project. Lower quality decisions ensue and the organization loses ground. This is one of the reasons that organizations that have less of a female influence *underperform* compared to organizations that have more of a female influence. A growing array of studies are now finding that organizations that make the most of their female voices, experience significant benefit.

For instance, a recent University of California study found that companies with women in top leadership positions have "stronger relationships with customers and shareholders and a

more diverse and profitable business." This is for many reasons, including a direct reflection of the ability of women able to see multiple viewpoints, such as the customer's needs. Going further, a 2011 Pepperdine Professors conducted a nineteen-year survey of 215 Fortune 500 companies and found that by every measure of profitability: equity, revenue, and assets, the researchers found that companies with the best records for promoting women outperform the competition^{vii}. There are many other corroborating studies that support this finding.

It is clear that women have the potential to make a unique contribution to decision making in organizations and that organizations are better off when their voices are heard. The take-away is: be aware of and value the unique contribution you possess. Value it and don't hold back. However, be acutely aware of the dynamics and that pressure can have on decision-making in organizations, and be wary when you or others are deferring to status over expertise.

The learning for organizations should be obvious: you need to find ways to get more female leader's perspective into your decision-making. This includes increasing the number of women in senior team decision-making as well as, given the second layer of pressure that women uniquely face, equipping them with tools and insights to manage pressure more effectively so that their significant value can be realized by your organization. One of the most important tools to do this is by being aware of the choice in how we *see pressure*.



Strategy #2: See pressure as an opportunity and not as a crisis or threat

While the specifics of high-pressure situations vary, they all share three common attributes that stimulate our anxiety and fear and are major determinants for why we underperform under pressure. They are when the outcome is:

- Important,
- Uncertain; and,
- You are responsible for or being judged on the outcome^{viii}.

For Julie Howard at Navigant, knowing that her decisions would determine the outcome for her company heightened the pressure she experienced. A big part of the pressure she felt was similar to being in a fishbowl and did not want to let any of these people down. The “weight” of pressure in such a situation doesn’t just come from feeling responsible to deliver — that’s the conventional thought. We’ve found it also comes from how we think *people watching us will judge us*.

We each have a deep-seated need to be loved, to be respected, and to belong. When we feel judged or criticized, or when we perceive that we will be judged, in a high-pressure situation, it can evoke feelings of inadequacy (are we good enough?) or embarrassment (am I doing it right?) or humiliation (will I look stupid?).

When we feel judged and rejected, it stimulates feelings of *social pain*, the pain we experience when social relationships are damaged or lost.

This pain is very real. Pioneering research by Matthew Lieberman at UCLA using neuroimaging studies shows that social pain and physical pain share the same underlying processing system in the brain. When you break an arm, you experience the same type of pain, neurologically, as when you feel the loss of a loved one. It is this social pain of being judged that causes many of us, women or men, to appraise our pressure situations as crisis or threat.

As is consistent with many of the leaders we work with, Julie felt immediate pressure to plan, to respond, and to perform in the face of great uncertainty, limited information, and being judged. It was by far the most acute pressure she had felt in her career and it is easy to see how Julie could appraise what was happening to her as a crisis or a threat.

(i) Cognitive Appraisal

The mental process we engage in that helps us to define what is happening to us or around us is called *cognitive appraisal*. It is the process by which we make sense of the world around us and the situations we face. It helps us to answer such questions as: Do I have what it takes to handle the demands of the situation? Is the situation important to me? And the single most important question that we face when we are under

pressure (and that drives our appraisal) is: *Do I see the situation as a crisis or an opportunity?*

Seeing pressure as a crisis or threat undermines our self-confidence, elicits fear of failure, impairs our short-term memory, attention and judgment, and spurs impulsive behavior. It also saps our energy.

There is a neurophysiological reason behind this: our blood vessels are lined with smooth muscle; when we see a pressure situation as a threat, our body releases increased noradrenaline, which acts to vasoconstrict these muscles. The lungs become constricted by noradrenaline as well, so there is less oxygen exchange. The end result is that we tire far more easily as we get less oxygenated blood to the tissues that need it. We can’t think as clearly and we lose perspective. All of these results diminish our performance at the very moment we need to be most effective.

On the other hand, individuals who perceive a task or situation not as a challenge or an opportunity, (or even fun) are far more likely to perform up to the level of their ability.

They increase their chances for success because their body releases more adrenaline than noradrenalin. This means the smooth muscle in their blood vessels dilate, as do their lungs, and now they have more oxygenated blood going to the tissues that need it. Their body has more energy and their brain can think more clearly; perspective returns.

When we see the pressure situation as an opportunity, we are stimulated to give the attention and energy needed to make our best effort. When we perceive a pressure moment as fun, the arousal we experience is enjoyable and exciting, rather than uncomfortable and unsettling.

(ii) Unique Influences on Female Appraisal

While there are many influences on the appraisal of male or female leaders, two that women need to be especially aware of include: the increased physical manifestation of pressure they experience; and the story or ‘system of beliefs’ they may hold from their upbringing.

Our research found that women experience more intense physical manifestations of pressure than men do. In fact, in our study we found statistically significant evidence that women reported feeling the following more intensely than men:

- Their heart pounding more before a presentation
- More anxious during a pressure situation

The challenge for women is that they experience these physical sensations in their body in such an intense way they are more prone to believing the situation they are facing is a crisis or threat. How could something so uncomfortable or ‘awful’ as this not feel like a threat?



What to do? As with Olympic athletes with whom we work who regularly experience these intense physical sensations, before and during competitions, the key is to change how you perceive the *meaning* of the physical sensations. See your physical sensations as simply your *body getting ready to perform*, not as a threat. We challenge our athletes to expect the sensations, welcome them, 'befriend' them in a very matter of fact way: 'Oh, you're back, I guess it is time to perform'. They reappraise their sensations not as nervousness but as excitement or as something expected: their body is simply getting ready to perform.

The second influence on appraisal lies in the special qualities and circumstances we bring to the table that shape our personalities: family background, role models, psychological traits and health, **systems of belief**, fears and hopes. These factors combine to form the basis for the unique way we interpret our surroundings, give meaning to outside events, and appraise the situations we encounter in daily life, especially in high-pressure moments. What are the 'systems of beliefs' that women bring to the table? Obviously it is different for every woman, but in our numerous interviews with women from around the world we were amazed at how pervasive some of these early beliefs were that were learned in early years; these beliefs then fed into the insidiousness of the second layer of pressure they uniquely face. For instance, a client told us her fathers' message to her growing up was: "Don't go to university. That's not a place for women. Just start from the bottom somewhere and work your way up".

This seemingly innocuous kind of story pervasively adds to the second layer of pressure women face early and throughout their lives: that they don't belong and they have to prove themselves.

It is not hard to see how this belief might cause someone to see or appraise a certain situation as more of a threat. Or affect how she shows up or defers to others with more status. In many ways this system of belief causes a special type of threat, known as "stereotype threat", that women (and minorities) experience that males do not share, or at least not to the same degree.

(iii) Understanding Stereotype Threat

Stereotype threat is the pressure created when success or failure would support a stereotype about their social group. For instance, think of the stereotype of girls and math in school: girls feel increased pressure around math because of the stereotype that they don't do as well as boys. This appraisal drives them to become either intimidated or paralyzed when taking a math course or to avoid taking math altogether as a

way to maintain self-esteem. Research has found, in fact, that somewhere around 2,800 women in the US fail to get calculus AP credit (advanced math) each year due to stereotype threat.

The good news from this study is that women who are simply more aware of this link and are given tools to appraise it differently have greatly improved calculus scores and attain their credit.

Ask yourself: to what degree does stereotype threat influence your appraisal of your pressure moments? Are you seeing some of your stretch assignments of leadership more as a crisis? Are you avoiding some situations altogether as a way to maintain self-esteem? Do you feel deep down like being a leader (or certain parts of leadership) is something that is not meant for you, a woman? This is the important work that you need to do to untether yourself from some of the systems of belief that might be driving your appraisals of pressure situations.

(iv) Know You Have a Choice in Your Appraisals

Regardless of the models or messages you have had in your life, you can start today to see your pressure situations differently, which is maybe the most important take-away from this white paper. What we have learned in our research is that many people believe that how they see events is static — that it does not change. Fortunately this limiting belief couldn't be further from the truth: How we appraise a situation can and often does change.

For example, a mediocre performance review at work upsets you on Monday, but by Wednesday you think it's actually pretty good. You are angry about a parking ticket in the afternoon, but the next day you realize it's no big deal. You wake up in the middle of the night in a panic about something, but by morning it doesn't feel so dire. What's changed? You still have to pay the ticket, and the performance appraisal stands. What's changed is how you are appraising the event: '*This isn't fair*' has become '*Well, I deserved the ticket*', or '*I am going to get fired*' has transformed to '*the review wasn't that bad; I'm just disappointed, but I can improve*'. The fact that you can change your appraisals of a situation allows you to regulate the pressure you experience.

In each of these situations, the event remains the same, but your appraisals alter the feelings and actions associated with the situations. In other words, *you have a choice* in how you appraise.

Before you go into your next high-pressure situation: prepare yourself more intentionally, don't go in 'blind'.

In our leadership development programs at IHHP, we use an acronym that many of the female leaders we work with find especially helpful: **COA**. Here is how it works. When you are facing a pressure moment, like Julie Howard, break it down by asking yourself these three questions:

- What can I **Control**? (and, what am I trying to control that I cannot control?)
- How can I use it as an **Opportunity** to grow?
- What **Action** can I commit to?

Here is an example of how some of the women we have worked with have reframed their pressure situations as an opportunity.

- If you have a big presentation to make: as opposed to focusing on whether they are going to like you or not, *think of it as an opportunity to 'share'* what you have been working on. See it as an opportunity to share all that you have prepared for your audience. Focus on how it can *help them* or how it can make a difference for them. When we do this, we worry less about how we will be judged and get excited about the difference we can make. Our energy changes and we 'infect' our audience with our enthusiasm and positive emotions. This infectiousness is important because research has found that in situations like presentations, where people (the audience in this case) make a 'buying decision', they do it based on the following criteria: *people, ideas and then product*. Not the other way around. They are more interested in how much you believe in what you are saying, how authentic you are, rather than, beyond a certain level, the specific detail of your idea or product.

As we described earlier, many women go in to the presentation so anxious about getting the minutia of details perfect (feeling like they need to be 110% prepared) that they miss the importance of *how they show up* – they over-prepare on the detail of their presentation at the expense of under-preparing themselves. By all means, prepare sufficiently on the detail of your presentation but remember beyond a certain amount, they don't care nearly as much as we think; what they are really assessing is *our authenticity and our belief*. When we are focused on this situation as an opportunity to share and make a difference, they will respond.

Returning to Julie Howard at Navigant, you can imagine that there were a lot of variables that would have been screaming at her that this was a crisis when she received that phone call about the Moreland Commission that rainy June night. You can understand how appraising the situation as a crisis would have increased her already acute experience of pressure: increased noradrenalin in her system, causing vasoconstriction of smooth blood vessels, depriving her brain and body of critical oxygen,

and diminishing her ability to think clearly and maintain perspective.

Instead, she excused herself from an evening at the theater with her family to talk to the chairman of the board of Navigant and craft a plan of action. The news called for an extraordinarily fast and thoughtful response, which Julie was capable of, as long as she could successfully manage the physical sensations she was experiencing and remain careful not to fall into seeing the situation as a crisis.

Fortunately, Julie was able to regulate her feelings of anxiety and fear by using a number of pressure strategies we describe in detail in our book, *Performing Under Pressure*, such as slowing things down by stepping back and "going still," as she calls it, in order to make sure she was focusing on the right things. "If you aren't careful, you could focus on the wrong things — the 'car flying by' that might not be that important in the big picture." That is, being careful not to fall into 'tunnel vision', missing all the variables and the context of the situation. More important than anything, however, is that, as she puts it, you have to feel "confident that you've taken the time to evaluate the situation and made the best decision you could, and then, don't second-guess yourself."

What Julie described in those last four simple words: *don't second-guess yourself*, is the final critical strategy women require to perform and lead under pressure that we are going to cover in this white paper: building confidence.



Strategy #3. Build Confidence

When we are confident, it acts as an *antidote* to the negative effects of pressure that can result in distorted thinking, especially of doubt. Feeling confident doesn't mean you don't experience doubt. In fact, every elite or elite Olympic athlete, manager, or leader (like Julie) we have worked with or studied, has experienced doubt. As one athlete recently put it: "Show me an athlete who does not have doubts and I will show an athlete who is *not telling the truth.*"

The challenge isn't to *not* have doubt – it is to change your relationship with doubt.

You do this by *expecting* it to arise and increase when you face a high pressure moment (similar to expecting strong physical sensations to arise as we described earlier), not reacting to it and changing your relationship to it. For athletes and leaders we work with, when doubt comes into their mind, they see it not as something to fight and resist but, as we described earlier, simply as their brain and body getting ready to perform. This is where confidence plays such a pivotal role. Confidence provides the buffer to allow the *co-existence* of thoughts of doubt while still performing and leading under pressure.

Building confidence is critical for women leaders for two reasons: negative events can sometimes *last longer* and have a bigger impact on confidence for women than men. For instance, research has found that when a man and a woman each receive negative feedback, the woman's self-confidence drops to a much greater degree. The internalization of failure, and the insecurity it breeds, hurts future performance in the moment and can have serious long-term consequences.

Secondly, women seem to start off with a lower confidence level. An eight-year study led by Wiebke Bleidorn, Ph.D., from the University of California^{ix} analyzed data from over 985,000 men and women across 48 countries: "In nearly all cultures, men have higher self-esteem". In our own interviews with senior women who had achieved so much, many still felt 'like a fraud', like they didn't deserve their success. In spite of having degrees from the very best schools and being credentialed to the hilt, they continued to have gaps in their confidence. Bridging this confidence gap is critical to successfully dealing with the pressure women face at work.

For Julie protecting her confidence and not 'second guessing' herself became crucial in dealing effectively with her pressure situation. It allowed her to deal with the facts in front of her more effectively and make better decisions, and it influenced her behaviors, which in turn impacted others. According to Julie: "Some CEOs would call the board immediately and ask for help. Instead, what I did was just call the board chairman and tell him that I was going to evaluate the situation, obtain counsel, and come up with a plan to present to the board." She recognized that the board would be affected by the pressure of

the situation as well, so she wanted to be in a position to ease their concerns.

So how could Julie protect her confidence in this pressure moment? For this we go back to the brain.

(i) The Neuroscience of Confidence

In the emerging research on pressure a neurological pattern has emerged that links effective leadership and performance under pressure with a particular neurochemistry. For example, we know that leaders who perform effectively in high-pressure situations have higher levels of testosterone and lower levels of cortisol.

There are many misconceptions about testosterone. First, we may make the mistake of thinking it is exclusively a male hormone. Not true. While men have higher absolute amounts than women, the more significant factor is the *ratio* of hormones within each person's system (i.e. testosterone vs. cortisol) rather than the absolute amount; thus, women are *not* at a disadvantage when it comes to the benefits of testosterone.

Second, as a hormone it has received a negative reputation among the general population as being linked to physical aggression and even violence. The reality is far more nuanced. Testosterone has a number of powerful effects on the brain and body, all critical to helping us perform under pressure: It makes us *feel more confident* and increases our level of motivation and willingness to engage in risk-taking behavior. Testosterone helps us beyond the typical physical pursuits we normally associate with it. Research has found that testosterone crucially helps us take risks that are *normally constrained by fear*. It does this by acting on the amygdala (the emotional part of our brain that codes for fear), tamping down the fear response and helping us access our cognitive resources to think more clearly. It removes the emotional wariness we have toward uncertainty and helps us to perform more rationally rather than emotionally.

To perform under pressure in any domain, there is a need to enter into fear-based situations *in spite* of what we feel physically, and to take action.

Testosterone levels predict which chess player will play better under pressure as well as the performance of elite surgeons because, in each case, these performers need to be able to take the necessary risks to be effective even when they experience fear. The research points out that testosterone does not lead to taking "stupid risks." Rather testosterone keeps emotions from interfering with our cognitive processing, allowing us to think and behave more, *not less*, rationally.

At the same time, individuals who perform better under pressure also have low cortisol, which means they are less anxious when it comes to managing pressure. They are able to stay the course even when things aren't going smoothly; they are also able to be non-defensive when they get feedback and not take it too personally. In effect, higher testosterone and lower cortisol allow them to be the "calm person in the boat."

The brain of each of us is constantly fluctuating in its neurochemical levels, and these hormones affect our levels of confidence and the type of behavior we choose to engage in, especially when it comes to pressure situations.

What can be missed is that we have a choice in our neurochemistry — we do not need to leave it to chance. There are a number of small things women in particular can do prior to entering a high-pressure moment that will increase testosterone and decrease cortisol.

(ii) Preparing How You Show Up

One of the most powerful ways to alter our neurochemistry is by being mindful of how we show up — in particular, our posture. While most of us recognize that people are reading our posture and how we show up, most of us do not realize there is someone else who is watching: we are. Our posture acts as ‘internal feedback’ to our own brain with significant impact on our confidence. Essentially, the brain looks for cues from our body and responds with changes in hormones. This phenomenon is especially important for women based on a distinction we found in our research. Women answered: “*When I experience pressure, I find myself trying to fade into the background*” far more than men. In other words, women tried to make themselves smaller, almost disappearing in meetings; men, on the other hand, often ‘take their space’ and don’t try to make themselves smaller. Choosing to make ourselves bigger or smaller has a consequence to confidence and performance that many of us are unaware of.

When we engage in what is known as a “high power pose” where we stand more *open and expansively* — arms open as opposed to closed across our chest, standing straight with shoulders back, as opposed to hunched with shoulders folded forward - our brain and body respond by increasing testosterone and decreasing cortisol. We occupy more space rather than less. Testosterone levels go up by 20 to 25 percent, and cortisol goes down by 20 to 25 percent.

In one study, researchers taught high-power and low-power poses to two groups of subjects prior to engaging in simple risk-taking activity that involved gambling for a few dollars. Saliva tests were taken before and after the test to measure testosterone and cortisol levels. One group adopted high-power poses for one minute, while the other assumed low-power poses for a minute. They then filled out questionnaires measuring power and risk tolerance, before proceeding to the gambling test.

Those subjects who engaged in high-power poses had a massive increase in their testosterone levels and a massive decrease in their cortisol levels. 80 to 90 percent of the high-power-pose subjects took more risks and used more approach behaviors than did the low-power posers, who took a risk only 50 percent most of the time. The results have been replicated in subsequent studies.

In another study, experimenters told subjects to wait while they went to an adjacent room. Before leaving, they gave each subject either an iPhone, an iPad, or an iMac to use while they all waited. As part of the protocol to the study, the experimenters never returned. What the researchers were curious about was how long it took each subject to interrupt the experimenter who had left them, based on the size of screen they were using while they waited.

They found that those who were using the larger screen of the iMac, and thus were sitting more expansively, came almost immediately to interrupt the experimenter in the adjoining room, wondering what was taking so long. The subjects who used the smaller iPad took much longer, almost twice as long, to find out what was keeping the experimenter. And the subjects using the iPhone, who were more closed in their posture as they hunched over the smaller screen, did not come out to interrupt the experimenter at all. In fact, the scientists conducting the experiment had to institute what is known as a “floor effect” and stop the experiment, because it was taking so long for these lower-power-posture subjects to interrupt them.

In effect, the smaller screen promoted a low-power condition. It affected the subjects’ brain chemistry and levels of confidence to such an extent that it caused them to *avoid interrupting the experimenters*. Small tweak, big change.

These neurochemical changes don’t just affect us in small tasks. They are important, too, when we are in high-pressure situations, like a job interview or a public presentation.

Researchers out of Harvard Business School conducted another study that replicated the pressure that comes with a job interview. Interestingly, the subjects who performed high-power poses scored *significantly higher* according to independent evaluators on a number of different criteria for effectiveness, but they did not come across to the evaluators as *smarter*. The difference was in their levels of *confidence and presence*. A short two-minute power-pose intervention made all the difference.

As a woman in a culture that may sometimes feel exclusionary or intimidating, or where you feel like you constantly have to prove yourself, you can make a few small but significant changes to help improve your confidence and performance in a high-pressure situation:

- Be mindful of how you sit prior to a pressure moment. Are you mindlessly looking at your iPhone, sitting in a closed and contracted posture, affecting your neurochemistry without even knowing it?
- Commit to doing a power pose in a quiet, secluded place for 60 to 90 seconds, fifteen to thirty minutes prior to your pressure situation. Yes, it may seem strange to do this but the benefits are very real.

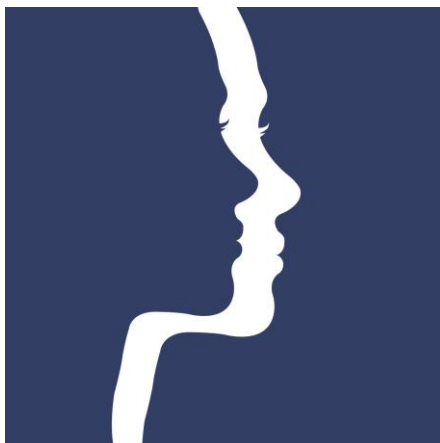
Additionally, if you add a visualization we use with leaders and athletes you can get a more powerful effect: while in a power posture, see or visualize yourself ‘at your best’: while standing

up straight in an ‘open and expansive’ power pose and with your eyes closed, think back to a time when you were ‘at your best’ — connecting, sharp, anticipating what you need to do and executing it. It could be during an interview, a meeting, a presentation or an important conversation. It works best if you try to make the image or visualization as vivid as you can. Do this for the 60 to 90 seconds you are holding the power pose.

- Finally, in the middle of the meeting, be mindful of how you are sitting. Are you sitting in a closed and contracted position? Remember, we found that women tend to make themselves smaller in meetings than men. How are you sitting? Are you taking your space and sitting open and expansive?

All of this makes a significant difference to our neurochemistry and to the level of confidence we feel in a pressure moment. It *immunizes us* to a great degree against the deleterious effects of pressure, enabling us to co-exist with the natural doubt that will arise and still allow you to perform at a high level even when the pressure becomes intense.

A word of caution is important here: building the skills we suggest in this paper do not develop overnight. Like the Olympic athletes we work with for months (and years) prior to the Games, or the managers we work with in our leadership development programs over several months using in-depth assessment, training and coaching, it takes time to build these skills. The good news is that everything we suggest in this paper is learnable if you are committed and willing to invest the time.



Back to Julie

When she was more intentionally prepared, Julie went to the board with a plan that took into consideration all of the key variables and critical context, which was approved. They decided to immediately approach the US Attorney’s office to offer full cooperation and assistance to enable the US Attorney’s office to conduct and conclude its review as swiftly as possible. They told the investigators that they would share whatever was needed, and asked them to let the company know what the specific concerns were so they could address them. The investigators at the US Attorney’s office appreciated the direct and transparent approach and, after a thorough review, closed its investigation without any indication of wrongdoing. Navigant achieved the favorable outcome Julie expected from the outset and was able to effectively manage the concerns of its shareholders, clients, and employees through clear and direct communication throughout the process.

Did Julie experience doubt and all of the other intense uncomfortable feelings that come with pressure? No question. Did she wonder whether she could successfully handle this situation? Absolutely.

What Julie experienced is what many of us experience in a pressure moment. The difference is that Julie faced this pressure with a more intentional, less haphazard approach. She used some of the strengths that women have in abundance - taking in a wide array of variables, not getting stuck in tunnel vision – which the US Attorney’s office appreciated. While there was ample reason to believe this situation was a crisis, she refused to hold that perspective. She trusted her sense of the right way forward and then, importantly, even when she felt the physical sensations and doubt that pressure brings, she didn’t second guess herself: she successfully dealt with the situation.

While most female leaders might not face such significant public pressure as Julie, they face their own high pressure situations. The good news is that the insights and skills highlighted in this paper are learnable. Exemplars, like Julie Howard of Navigant and others, are taking a more intentional approach and using the new science of pressure to build concrete tools, take control and perform and lead more effectively under pressure. And in so doing, they are adding a unique contribution that organizations require if they are going to successfully manage the high pressure environments in which they exist.

Game Plan for Pressure™

The game plan for pressure is a simple template you can use whenever you are facing a pressure situation. (It can also be useful in coaching others around you who are facing pressure situations.)

It starts by making a commitment to intentionally or strategically prepare yourself. The good news is that the more you do this the more natural and familiar it becomes.

Prior to your next pressure moment, adopt the following habit:

1. *Expect* to experience strong physical sensations in a pressure situation. Change the meaning of it to understand that your body is simply **getting ready to perform**.
2. Ask yourself 3 questions as a way to **See the Situation as an Opportunity**
 - a. What can I **Control**? (*and* what do I need to let go of that which I can't control?)
 - b. How can I use it as an **Opportunity** to grow?
 - c. To what **Action** can I commit?
3. Prepare How You Show Up

Remember: people buy *people, ideas, then product*, not the other way around. Of course, you want to prepare the details of what you want to say but don't let anxiety about being perfect get in the way of how you show up. People care far more about your belief and authenticity about what you are saying, than about details beyond a certain level.

Hold a power pose in a quiet, secluded place for 60 to 90 seconds, fifteen to thirty minutes prior to your pressure situation. While standing up straight in an '**Open and Expansive**' power pose and with your eyes closed, think back to a time when you were "at your best", a time when you were 'on your game' — connecting, sharp, anticipating what you need to do and executing it. When you show up, take your space and *own the room*.

4. Be mindful of the trap that you and others can fall into: deferring to status over expertise. Be clear that you, as a woman, have a **Unique Viewpoint** that your team, and organization, fundamentally need to be successful. You have the ability to take in more variables than men and see from more stakeholder's point of view. Don't doubt this ability. Commit to using your voice.
5. Finally, remember: **You have everything you need to be successful**. You don't need to be something you are not. You don't need to be perfect. You just have to be yourself with enthusiasm and belief.

About IHHP

The Institute for Health and Human Potential (IHHP) is a global research and learning company that specializes in helping organizations and leaders leverage the science of performing under pressure. We offer Training, Leadership Assessments, Coaching, Keynotes and the Performing Under Pressure book. Our expertise is sought by Fortune 500 companies, the world's top business schools, the U.S. Military and Olympic medalists. We have a Canadian office in Toronto, a U.S. office in Chicago and an Australian office covering the Asia Pacific region.

We provide the following solutions that allow organizations to develop sustained learning programs:

- Performing Under Pressure Book** Co-authored by Dr. J.P. Pawliw-Fry, this New York Times bestselling book offers the latest science on how your brain responds under pressure, and many empirically tested strategies to help you overcome its sabotaging effects.
- Keynote Speakers** Be inspired by the world's leading experts on Leadership, Emotional Intelligence and Performing Under Pressure.
- Training Programs** We offer these follow up programs - both in-class and virtually - as part of our world-class training curriculum:
- Performing Under Pressure: The Science of Emotional Intelligence
 - Performing Under Pressure: Doing Your Best When it Matters Most
 - Performing Under Pressure: The Three Conversations of Leadership
- These training programs can be delivered on-site by IHHP Senior Facilitators or at our Public Programs. We also offer certification that enables your trainers to deliver our Performing Under Pressure curriculum.
- Assessments** We provide web-based 360 and individual assessments that provide feedback on the core competencies of Emotional Intelligence and Performing Under Pressure.
- Video Sustainment** This five part video series reinforces the learning from the training program and focuses on how the strategies taught in the keynote or training programs can be applied.
- Coaching** One-on-one (in-person and telephone) coaching provides support and accountability to each coachee as they work to achieve the personal and professional development goals committed to in the training program.

www.ihhp.com/women-under-pressure | www.pressurebook.com



References

- ⁱ Women in the Executive Suite Correlate to High Profits Roy D. Adler, Ph.D. Pepperdine University. European Project on Equal Pay. 2001
- ⁱⁱ Weisenger, H., Pawliw-Fry, JP, *Performing Under Pressure: The Science of Doing Your Best When it Matters Most*, Crown 2015.
- ⁱⁱⁱ American Express Open. *The 2014 State of Women-Owned Business Report*. 2014
- ^{iv} Ruigrok, Amber N. V.; Salimi-Khorshidi, Gholamreza; Lai, Meng-Chuan; Baron-Cohen, Simon; Lombardo, Michael V.; Tait, Roger J.; Suckling, John (2014-02-01). "[A meta-analysis of sex differences in human brain structure](#)". *Neuroscience & Biobehavioral Reviews* **39**: 34–50.
- ^v University Of California, Irvine. "Intelligence In Men And Women Is A Gray And White Matter." ScienceDaily. ScienceDaily, 22 January 2005.
- ^{vi} Gardner, Heidi K. *Performance Pressure as a Double-Edged Sword: Enhancing Team Motivation While Undermining the Use of Team Knowledge*. Harvard Business School Working Paper. 2012
- ^{vi} Woolsey Biggart, Nicole Elsbach, Kim, Ellis, Katrina. *The 2005 UC Davis Study of California Women Business Leaders*
- ^{vii} Women in the Executive Suite Correlate to High Profits Roy D. Adler, Ph.D. Pepperdine University. European Project on Equal Pay. 2001
- ^{viii} Weisenger, H., Pawliw-Fry, JP, *Performing Under Pressure: The Science of Doing Your Best When it Matters Most*, Crown 2015.
- ^{viii} Lieberman, Matthew D., Eisenberger, Naomi I., Williams, Kipling D. Does Rejection Hurt? An fMRI Study of Social Exclusion 10 OCTOBER 2003 VOL 302 SCIENCE
- ^{viii} Roseman, I. (1984). Cognitive determinants of emotions: A structural theory. In P. Shaver (Ed.), *Review of personality and social psychology: Vol.5. Emotions, relationships, and health* (pp. 11-36). Beverly Hills: Sage
- ^{viii} Farland-Smith, Donna. *Struggles of Underrepresented Girls as They Become Women: Understanding How Race & Gender that Impact Personal Science Identity Construction*. *Journal of Educational Issues* ISSN 2377-2263 2015, Vol. 1, No. 1
- ^{viii} Robins, Richard W., Trzesniewski, Kali H. *Self-Esteem Development Across the Lifespan* 2005 American Psychological Society Volume 14—Number 3
- ^{ix} Bleidorn, W., Arslan, R. C., Denissen, J. J. A., Rentfrow, P. J., Gebauer, J. E., Potter, J., & Gosling, S. D. (2015, December 21). Age and Gender Differences in Self-Esteem—A Cross-Cultural Window. *Journal of Personality and Social Psychology*. Advance online publication. [http:// dx.doi.org/10.1037/pspp0000078](http://dx.doi.org/10.1037/pspp0000078)
- ^{xvi} Cueva, Carlos et al **Cortisol and testosterone increase financial risk taking and may destabilize markets** *Scientific Reports* **5**, Article number: 11206 (2015)
- ^{xvii} Cuddy, Amy J.C., Caroline A. Wilmuth, and Dana R. Carney. "The Benefit of Power Posing Before a High-Stakes Social Evaluation." Harvard Business School Working Paper, No. 13-027, September 2012.