

Bringing Awe Down to Earth:  
Inspiring High Performance through Positive Executive Coaching

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A Capstone Project Submitted  
In Partial Fulfillment of the Requirements for the Degree of  
Master of Applied Positive Psychology

Advisor: David Yaden

August 1, 2017

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Abstract

What inspires and sustains high performance? Positive psychology, the scientific study of human strengths and well-being, provides evidence-based insights into the mechanisms of, and characteristics associated with, flourishing. Astronauts represent a paragon of high performance through the intensely focused preparation, passion, and perseverance required in their training and during space missions. This capstone draws on both scientific findings from positive psychology and insights from astronaut training to provide a unique lens for a positive executive coaching program. In addition to a review of relevant positive psychology research to illustrate the principles of this program, this capstone includes personal anecdotes and interviews with astronauts about their experiences of awe and the practices that inspire high performance.

*Keywords: space psychology, performance, resilience, awe, executive coaching, meaning, leadership, accomplishment, positive psychology*

## ACKNOWLEDGEMENTS

The last twelve months have been the busiest, most challenging, and rewarding year of my life. I have heard alumni speak to the unorganized chaos of a MAPP year. Starting a new job in August 2016, entering MAPP, and planning a wedding left me with a year of sleepless nights, amazing new friends, and countless memories. Without the infallible support and encouragement from my wife Lauren, family, friends, and God's grace, none of this would have been possible.

An awakening to find a more profound sense of personal fulfillment sparked my journey to MAPP. This program has done that and beyond, quenching my thirst to extract more meaning from life and work. Meeting new lifelong friends like Sophia, Denitsa, Ryan, and Anne confirms that this program is truly a calling of the exceptional. I appreciate the encouragement, love, and support from all of my MAPPsters who curated, challenged, and advanced my development as an ambassador for positive psychology. Additionally, the inimitable faculty and staff, especially James, Marty, and Leona, thank you for helping me to transform my thinking.

Last but not least, thank you to my advisor David Yaden. Your steadfast contributions, otherworldly wisdom, and unrelenting passion for the cosmos helped me to transform chicken scratch on loose-leaf paper into a capstone that is inspirational and tactical, as I hope to bring this coaching program to businesses around the world.

In life, the challenges we face can inhibit or inspire us to perform. For every triumph, success, and joyous moment I have had, there have been a myriad of setbacks, frustrations, and doubts that I surely assumed would render me ineffective. This capstone helped me to discover that the path to greatness is available to all who do one thing. Show up.

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## INTRODUCTION

*I believe we live in a world where the possibilities are endless and limited only by our imagination and our will to act. (Garan, 2015)*

Imagine the world's tallest ladder. Beginning on the ocean floor, pushing through the vast blue deep to the Earth's surface, above the tallest skyscrapers, at last breaking into the atmosphere and beyond. Even for the truly audacious, it would take more than courage to scale a ladder stretching from the sea to the stars. In life, we notice that high-performers often have an insatiable desire to reach these awe-inspiring vantage points. Outsiders marvel at the altitude of accomplishment where these world leaders, supreme athletes, and masters of industry resides...but there is more to their stories of high performance. For any of these gifted leaders, a rich history of preparation was necessary to propel them to these peaks. Many people desire to reach these peaks of high performance, yet without training, a sense of meaning, or the appropriate perspective, they are unable to commit to or complete the climb.

Since childhood I have looked up, curious as to how I might scale this figurative ladder of my dreams. There was a literal element to the heights of this ladder as well – I dreamed of becoming an astronaut. On my first day of school, I eagerly walked into my classroom and sat down at the small wooden desk with my name neatly printed on a placard. Then I looked up. Taped on the wall above my desk was a poster that would initiate the evolution of my curiosity from academic interests to real-world application. The poster was from NASA. It showed an astronaut hovering over Earth, tethered to a cable from the International Space Station with a slogan that read, “Explore the Unknown. Nothing is Impossible.” That image seared into my memory. I surmised that only an exceptional high-performer could don the white spacesuit and explore the immeasurable vastness of outer space. A fire ignited in me at that moment to learn

how to perform, and to perform exceedingly and abundantly well. For me, the literal and figurative heights of high performance have always been joined.

From that poster, a deluge of questions stormed across my mind, demanding answers. What were the choices that this particular astronaut made in life that allowed her or him to venture past our atmosphere? How did that individual maintain the stamina to persevere beyond life's obstacles to become one of a few hundred people to enter outer space? How does one train to survive and flourish in one of the harshest environments known to humankind? I sought out these answers hoping they would provide me with insight on how to succeed against any challenges I might encounter. If I could sketch the pathway to high performance, I knew it would enable me to do something extraordinary in life, pushing past the limitations of my neighborhood into the uncharted territory of my ambitions.

In some ways, the plight of America's inner cities parallel the struggles astronauts must brave during missions. The hostile and unpredictable conditions of outer space can derail even the most forensically planned mission – inducing a sense of helplessness when danger is imminent and eroding the morale of crewmembers (Suedfeld & Steel, 2000). Equally dangerous and volatile, my childhood in Newark, NJ robbed many people of their sense of purpose and even in some cases, their lives. The pervasive danger and depression that permeated the corners and conversations of my youth skewed my perception of reality for the poor. However, these experiences in my childhood and adolescence introduced me resilience. The ability to bounce back from adversity and perform at higher levels than previously imagined was vital in an environment that required mental, emotional, and physical toughness (Reivich & Shatte, 2002). Nonetheless, I knew what that NASA poster stirred in me; if achieved, I could inspire others in

my community to achieve the impossible, and defy the physics of poverty to climb the ladder of their dreams.

My infatuation with the awe-inspiring profession of astronauts was not just from the intoxicating thrill of a spacewalk (Hadfield, 2013). I yearned to know: what inspires and sustains their high performance? Astronauts represent a paragon of high performance through the intensely focused preparation, passion, and perseverance required in their training and during space missions. Positive psychology, the scientific study of human strengths and well-being, provides evidence-based insights into the mechanisms of, and characteristics associated with, flourishing.

Implementing the principles of positive psychology into my personal and professional life enabled me to approach my problems with an elevated perspective. As I continue to climb my space ladder of accomplishment, this field reframed my perspective of what success truly means. My previous belief that extrinsic rewards reflected achievement capped my ability to succeed until my realization that achievement and meaning have less to do with a paycheck and more to do with purpose. With this newfound tenacity to find work towards a greater purpose, I now channel my strengths at work to inspire others to be top performers. This capstone captures the evolution of my reframed thinking, drawing on both scientific findings from positive psychology, specifically PERMA, resilience, and perspective along with insights from astronaut training to provide a unique lens to a positive executive coaching program. In order to illustrate the principles of this coaching program, this capstone includes personal anecdotes and interviews with astronauts about their experiences of awe and the practices that inspire high performance.

In Part 1 this paper will take the reader on the ascent, analyzing the process of astronaut training, centering on pre-flight preparation and transitioning to the awe they experience during

spaceflight. Throughout this section, I will underscore the positive psychology research that validates why this training is so effective. As we descend to Earth in Part 2, the capstone will provide an overview to the outcomes of this training and the current models of executive coaching that exist today. This capstone will then culminate into a positive executive coaching program that seeks to inspire high performance for leaders across disciplines. While being an astronaut is an exceptional designation, this capstone affirms that any person can experience awe and high-performance, soaring into the orbits of their imagination with the proper guidance and incentive.

### **Part 1: The Ascent**

*The whole process of becoming an astronaut helped me understand that what really matters is not the value someone else assigns to a task but how I personally feel while performing it.*

*(Hadfield, 2013, p. 280)*

### **Experiences of Awe and Excellence in Astronaut Training and Culture**

As we begin our ascent, this section will provide anecdotal experiences from astronauts, capturing the progression from initial training to their first spaceflight highlighting the intensity of the training while examining the positive psychological principles employed. These core positive psychology topics include resilience, relationships, meaning, positive emotion, and perspective, which we will explore as a common theme throughout Part 2.

When these concepts are thoughtfully applied to training we witness individual and collective changes occur, transforming NASA and their astronauts into an even more virtuous organization (Froman, 2009). Given the diligence of preparation for the human space flight program, we will analyze the psychological, emotional, and pragmatic benefits of training that

flow beyond the cockpit. Astronauts returning to Earth are discovering new ways to enrich their lives from the salutogenic experiences of spaceflight, which is rooted in each phase of their training (Ihle, Ritsher & Kanas, 2006). The remaining sections will expand on the aforementioned positive psychology principles and analyze the relationship of these elements within the culture of astronaut training. From there we will reach the apex of our ascent, and examine the actions and attitudes astronauts must master to flourish in outer space.

## **Positive Psychology**

*...but I actually detest the word happiness, which is so overused that it has become almost meaningless. The first step in positive psychology is to dissolve the monism of “happiness” into more workable terms. Much more hangs on doing this well than a mere exercise in semantics. (Seligman, 2011, p. 9)*

Positive Psychology is the scientific study of what enables human beings and organizations to flourish (Seligman, 2011). As this capstone sits at the intersection of positive psychology and astronaut training, it is necessary to provide an overview of positive psychology to provide further context to the reader. One common misunderstanding is that positive psychology is about “being happy”. While it does seek to redefine happiness, which is vital to our well-being, this does not encapsulate the totality of what positive psychology represents. Another common misunderstanding is that the field represents one coherent body of suggestions. This field is not singular but rather includes research that focuses on a myriad of psychological, emotional, relational, and pragmatic concepts related to the well-being of our individual and collective lives (Seligman, 2011). This section will uncover the specific concepts of PERMA and resilience demonstrating how they are focal to achieving high performance and flourishing.

*PERMA*

As we seek to define evidence-based ways of achieving high performance, we must also define what positive psychology considers a life well lived. The good-life in Martin Seligman's PERMA model: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment (Seligman, 2011). These five elements serve as the foundation upon which we begin our journey to flourishing and the good life.

Positive emotion spans happiness, satisfaction, joy, and awe to name just a few. The ripple effect that positive emotion has on how we think and perceive life is a crucial element to our performance. In a meta-analysis done of 300 scientific studies on the happiness-success link, their findings showed that positive affect, or positive emotions, help to produce success and performance. Specifically, when measuring success against increased financial compensation, improved health, or satisfying marriage, positive emotions were the most consistent findings across these life domains (Lyubomirsky, Diener, & King, 2005). These results affirm Barbara Frederickson's (2009) Broaden and Build Theory, which asserts, that unlike negative emotions which narrows people's cognition and action, positive emotions broaden people's cognition and possible actions. Expanding our awareness to a wider array of thoughts and actions than what is typical provides people with unique perspective that organizations can benefit from utilizing (Frederickson, 2009). Frederickson's axiom of positivity fosters leadership, effectiveness and collaboration, a concept that is embedded in astronaut training. As their missions cause them to face the danger of perilous tasks and fragile emotions, they must use positivity to achieve mission success and strengthen relationships with crewmembers (Suedfeld & Steel, 2000).

Engagement, like positive emotion, is intimately linked to meaning and accomplishment (Seligman, 2011). When engaged in a task, we can lose track of time and become absorbed to the

point that we enter a state of *flow*, which Mihaly Csikszentmihalyi (1990) describes as optimal experience in which we are so absorbed in an activity that nothing else seems to matter. In the earlier study of how awe alters perception of time, it is important to note that *flow* and awe are catalysts to high engagement and performance (Ihle, et al., 2006). Studies show that employees in *flow* not only perform better on their jobs than their peers, but experience improved physical and mental health (Csikszentmihalyi, 1990). *Flow* is also a byproduct of excellence. This is an important notion to consider when examining engagement; *flow* represents the lifestyle that high performers commit to so they can remain engaged and excellent in their expertise.

Relationships are the fabric that holds organizations in place. When there is lack positive relationships, the effectiveness of organizations frays as interconnectedness becomes obsolete. Emotional intelligence, a derivative of positive emotion, can strengthen relationships and foster leadership in the workplace (Froman, 2009). Christopher Peterson lived by the motto “Other people matter” (Seligman, 2011). His belief that other people are typically centered on the highest moments of life, point us to the understanding that relationships are a fundamental component of our success. In the face of stressful or toxic environments, the antidote of camaraderie improves individual and collective performance (Salas, Tannenbaum, Kozlowski, Miller, Mathieu, & Vessey, 2015). Relationships are fundamental to creating moments of meaning throughout our lives and serve as pillars of positivity that buttress our ability to perform.

Meaning relates to how one sees their life outside of their own existence (Seligman, 2011). Amy Wrzesniewski (2010) has conducted research on her concept of job crafting – an intervention to help individuals explore whether or not they are pursuing a job, career, or calling. In her research, Wrzesniewski proved that regardless of employee level, those who implemented

her job crafting intervention reported higher levels of engagement, performance, and resilience at work. Job crafting requires participants to take a “before snapshot” of where they allocate time on the job which provides a clear view of the time associated with tasks that detract or develop skills. The after diagram requires the person to be forward looking, reallocating time and tasks towards what is aligned with their strengths, motives, and passions (Wrzesniewski, 2010). This is where positive psychology thrives; instead of looking in the rear view mirror of our troubles, it holds up binoculars to see how, in the present state, one can achieve the future they envision. Astronauts mention their job is exhilarating not solely from the allure of outer space, but their role to advance the knowledge of outer space for humankind (Hadfield, 2013). They commit to something beyond the altitude of their own ambition, which is why they value their work so passionately. Challenges in their field always occur but meaningful work supersedes obstacles, as they are inspired to perform with the knowledge that their job benefits others.

Seligman (2011) argues that accomplishment (or achievement) is pursued for its own sake irrespective of the emotion it elicits. Achievement is not about the wins, losses, or even happiness; it concentrates on the goal for the sake of the experience. As we introduce the positive executive coaching model in Part 2, we must establish this definition of achievement when communicating what accomplishment looks like to executives. From a positive psychological standpoint, it is not solely focused the accolades and recognition, but our ability to be ambitious, and have an achievement-oriented perspective that increases well-being above anything else (Gander, Proyer, & Ruch, 2017). Accomplishment is our internal assessment of the work, relationships, and achievements that resonates with our value systems.

*Resilience*

Resilience is the basic strength in our emotional and psychological framework that gives us the ability to bounce back from all negative threats, external or internal (Reivich & Shatte, 2002). The role resiliency plays within the continuum of our well-being is vital; we rely on resiliency to push beyond any setbacks that we face. When resiliency is exercised corporately, we see an increase in its capacity to overcome setbacks and establish cultures of teamwork and trustworthiness that empowers organizations to flourish (Froman, 2009). As we look to achieve high performance, the ability to manifest one's inner strength to overcome is mandatory for leaders across all professions.

One may assume that officers in the military should be highly proficient in resilience, yet the reported levels of depression, anxiety, and poor interpersonal relationships in the Army in 2009 did not reflect such. That year, the Penn Resiliency Program (PRP) worked with the US Army through the Master Resilience Training program, a 10-day program teaching Newly Commissioned Officers (NCOs) resilience in a train-the-trainer format (Seligman, 2011). The PRP trainers sought to cover three modules: fundamentals of resilience, building mental toughness, and effective problem solving, while identifying character strengths to overcome challenges and reach goals. Through these modules, NCOs are armed with the means to teach resilience to officers in sustainable model. Results of this program led to strengthened relationships, positive influences on both military and personal life, and enhanced cognitive functioning (Seligman, 2011). These results point to the potency resilience training can have on a variety of audiences. All who seek to perform require growth and the compounding benefit resilience has on well-being shapes leadership that can manage struggle through practical solution.

## Astronaut Training

*Just like that, we were nobodies. We were not even called astronaut but ASCAN's (pronounced as you might imagine) meaning astronaut candidates. Plebes. No hazing required to knock us down a peg. (Hadfield, 2013, p. 98)*

In 2009, NASA's astronaut candidate class had an acceptance rate of 0.25%, of which each candidate applied multiple times prior (Hadfield, 2013). Imagine the world's most elite scientists, engineers, and pilots experiencing rejection on multiple occasions and then, once accepted, only to realize that they are mere novices in all aspects of astronaut training! Col. Michael Hopkins describes the initial stages of astronaut training as such:

*A lot of pressure not to fail, from internal and external factors. Externally, everyone knows you have been hired to do well, and the selection process is rigid so expectations are quite high. Trying to meet those can put a lot of pressure on you. (M. Hopkins, personal communication, June 29, 2017)*

This section seeks to explore the failures and successes in astronaut training, focusing on preparation and positive psychology's principles present in their training. As we cover the extreme nature of their training programs, it conveys how special and rewarding this experience is for any astronaut. Due to the highly competitive and expensive process of organizing a manned space mission, some astronauts that graduate the program do not get a chance to go to outer space! Nevertheless, each astronaut that is designated flight ready must complete the unrelenting tests, irrespective if he or she ever sets foot on a spaceship (Hadfield, 2013). High performance is mandatory during space missions, which is why there is no such thing as too much training for the most novice or experienced astronauts.

*Teamwork Training for the Highs and the Lows*

When it comes to astronaut training, research speaks to the benefits of having a strong grasp on the technical aspects given the highly specialized work required in space flight. This is not an earth-shattering concept, however new research reveals the explicit requirement for crewmembers to focus on interpersonal, relational dynamics before flight (Strapazzon, Pilo, Bessone, & Barratt, 2014). Col. Chris Hadfield describes the moment before his first spacewalk as a square astronaut trying to go through a round hole. His complete reliance on the confidence and competence of his crewmembers to keep him calm, informed, and tethered to the spaceship validates the high stakes of their training.

During Extra Vehicular Activity Hadfield temporarily lost sight in one eye, and began to lose oxygen while operating a mechanical arm to install a piece of equipment. Hadfield's ability to communicate what was happening, and to trust that they could work together to complete the task, reflected the confidence he had in his relationship formed by years of training (Hadfield, 2013). We know from PERMA that relationships are an essential component to well-being. While hovering over a space station with a billion dollar apparatus may not be on your to-do list, any person can relate to the need for competence and empathy during high stress situations (Seligman, 2011). In order for astronauts to remain calm hundreds of thousands of miles above, let us explore some of the training astronauts complete on land to maintain their sanity and success above.

The world's brightest minds have to be academically astute and emotionally intelligent for any successful mission. In 2011, The European Space Agency designed a two-week international training program to maintain this dynamic. The program appropriately dubbed CAVES, Cooperative Adventure for Value and Exercising human performance Skills, takes

places in underground caves, simulating the remote, alien, and unpredictable conditions of space. This program prepares astronauts for the interpersonal conflict that occurs during most missions (Strapazzon, et al., 2014). Some of the exercises require trainees to scale alongside damp and dark cave walls to mimic spacewalks. The unknown, rough terrain during cave exploration fosters problem-solving, decision making, communication, and leadership as trainees are required to execute this training without supervision present. Each day the candidates debrief with former astronauts, reviewing communication and performance, and then work on ways to improve execution and communication.

Outer space requires physical, academic, and emotional testing which is why the groundwork of training prepares them for success above. The CAVES program serves to boost astronauts' confidence and fortify relationships, which is paramount to the success of any mission (Strapazzon et al., 2014). There is a connection between relationships, resiliency, and the performance in training as astronauts depend on a combination of knowledge, level-headedness and leadership to succeed even when the unexpected occurs.

### *Developing Inner Strengths in Space and Snow*

Col. Chris Hopkins trained for three years with 350 professionals from NASA and other space agencies to prepare for his space mission. Despite all the training to prevent things from going awry, mistakes are inevitable.

*We had the opportunity to go on a spacewalks to repair a ruptured pump module. The directive was clear, pull one module out and put a new one in. During course of this spacewalk, like others, not everything goes right, there is a lot of pressure on us to perform, and no more so when you're out on a spacewalk. We have*

*limited time to get job done and costs of failure are potentially limiting the capabilities of the ISS. You know that NASA has spent considerable resources to get you up there, making it very easy to kick yourself, but find a way to get the job done. I made a mistake inserting the pump, causing a 15-minute exercise, to last over an hour. Although I kicked myself, it humbled me that my teammates were there encouraging me the whole way through. (M. Hopkins, personal communication, June 29, 2017)*

In space, these mistakes are not just financial when equipment malfunctions, the psychological toll can be irreparable if resilience is not ingrained in one's thinking. Hopkins admitted that in spite of the mistake he made, the greatest tool he learned from training was the concept of unconditional teamwork and relying on a diverse group of people to keep you alive and engaged in a high-pressure environment (M. Hopkins, personal communication, June 29, 2017). Resilience is not monistic, the ability to rely on others to stay aligned to the mission is critical not just for astronauts but for anyone who faces a struggle that is too difficult to brave alone.

Survival training for astronauts takes place in the mountains of Quebec, where they spend a week hiking with 300-pound sleds that they must push and pull through blizzards (Hadfield, 2013). At the peak of exhaustion, Hadfield offered an intervention for astronauts to describe how they each were engaged to their spouses as a diversion to the bleak reality of survival training (Hadfield, 2013). While trudging through the tundra is not a pre-requisite for most, bouncing back in the midst of chaos is why resilience remains a necessary element for success whether the conflict is present in the body or the mind.

*Concerning Conflict and Meaning in Space*

There are no doubt risks involved in outer space as we have explored throughout this capstone, and beyond the environmental threats of space, internal friction can pose serious challenges to mission success. Coexisting in isolated and confined environments (ICE) in long-duration space exploration can be difficult to achieve during spaceflight (Suedfeld & Steel, 2000). In an article studying the psychology of capsule habitats, researchers summarize capsule experiences as such: “The evidence is overwhelming that for many, perhaps most, capsule dwellers—at least, for those whose mission did not end in total disaster—the sojourn is a cherished and important part of their life, perceived as an impetus to growing, strengthening, and deepening, to be remembered with pride and enjoyment.” (Suedfeld & Steel, 2000, p.229). Although there is a deep sense of adventure, meaning and accomplishment associated with missions, there are valleys and peaks during the course of their journey which reinforce the necessity for rigid preparation to help astronauts perform well in all circumstances.

Despite this sobering reality, the research speaks to the positive psychological outcomes that occur in capsule environments and their relationship to meaning. The people who have come through demanding capsule missions are mentally and physically healthier, more successful, and more insightful than they had been or than were matched controls (Suedfeld & Steel, 2000). This discovery of meaning in the face of hardship provides a unique lens to what gives a person value. Confronting difficulty and achieving success can be a key component to redefining the steps we take to perform.

NASA attempts to buffer these difficulties by scheduling breaks, offering communication to crewmembers’ families, and giving astronauts autonomy on how to rotate their schedules. When these difficulties are unaddressed, we have seen crews like Skylab 4 forcefully insist on

time off and control over when they would perform their tasks (Suedfeld & Steel, 2000). The dynamic of interpersonal relations are a fragile yet essential component to the success or failure during space flight. Col. Michael Hopkins noted that dependence on teamwork is one of the top three takeaways he learned from his training and space missions:

*“Similar to the military, establishing trust in the person you’re confined into a cramped space for 6 months and the one person who makes sure you’re tethered to a space station so that you don’t float away in the abyss is a sobering moment. It teaches you that there is no superstar attitude in space flight.” (M. Hopkins, personal communication, June 29, 2017)*

Hopkins’ remarks offer us a front row seat into the humility and malleability required of astronauts in such a delicate environment. Positive emotion during spaceflight is a key to mission success, reinforcing the role PERMA’s can play in any leadership training (Seligman, 2011). Astronauts have to function as a unified organism, not as individual high performers. As we explore the positive outcomes of spaceflight in the next section, we see the talents produced from training and missions that lead astronauts to high performance.

### **Positive Outcomes of Spaceflight**

*No astronaut, no matter how brilliant or brave, is a solo act. Our expertise is the result of the training provided by thousands of experts around the world, and the support provided by thousands of technicians in five different space agencies. (Hadfield, 2013, p. 145)*

There are a myriad of positive psychological outcomes linked to spaceflight, which enhances well-being in the lives of astronauts. Throughout this section, we will explore the

outcomes of positive emotion, enhanced relationships, and perspective. These salutogenic benefits of space flights affirm that despite the negative stressors associated with both training and space missions, the result leaves astronauts with experiences that enhance their well-being and provide long-term benefits (Ihle, et al., 2006). Given the connection between positive psychology and space flight, we can inform others on practical and inspiring ways to improve performance.

### *Salutogenesis as an Elevated Well-Being*

In an empirical study conducted to measure the positive psychological outcomes in spaceflight, researchers developed an instrument, the Positive Effects of Being in Space (PEBS) Questionnaire, to measure astronauts' positive reactions to outer space. When astronauts returned from spaceflight, they reported feelings of increased awe, appreciation of beauty and excellence, and improved coping strategies in personal crises, as the highest-ranking effects of spaceflight (Ihle et al., 2006). This study unveils the powerful experiences that are a result of space missions, and how these transformational experiences positively influence life on Earth. At the apex of their ascent, astronauts memorialize their experiences and reroute them to actions post flight to enhance their well-being. The PEBS questionnaire reported astronauts noting enhanced career prospects and putting more effort into relationships because of spaceflight (Ihle, et al., 2006). Regardless of the obstacles, the salutogenic experiences of missions play a crucial role in extracting meaning and gaining strengths, which promote psychological and professional success on the ground and in the sky.

*Crew Collaboration in Spaceflight*

Astronaut Ron Garan (2015) says of teamwork in space that “Open collaboration encourages greater accountability, which in turn fosters trust” (p. 2). Team cohesion is required for the emotional well-being of astronauts and the overall success for current and future missions to outer space. In an article studying the science of team effectiveness in space, researchers argue that mission success is contingent upon selecting team members who cannot only perform well but can work well together (Salas et al., 2015). As NASA prepares for missions to Mars, there is a new focus on ensuring team performance is upheld by enhancing team effectiveness. In space, collaboration takes time to achieve, but when successful, this study implies a direct link to the overall performance of the mission. The authors defines team resilience, another component to success, as the capacity for team to handle and respond to the stressors and challenges they experience during space missions (Salas et al., 2015). This article proposes a novel idea of combining positive psychological principles of relationships and resilience with technology to foster performance in space. With the possibility to reach astronauts remotely and positively intervene during times of conflict, scientists can take an offensive stance towards thwarting the negative stressors of spaceflight.

*Awe-Inspiring Transcendence*

*What's coming out of my mouth is a single word: Wow. Only elongated: Wwwwoooww. But my mind is racing, trying to understand and articulate what I'm seeing, to find analogies for an experience that is so unique. It's like being engrossed in a cleaning pane of glass, then you look over your shoulder and realize you're hanging off the side of the Empire State Building. It's*

*overpowering, visually, and no other sense warns you that you're about to be attacked by raw beauty. (Hadfield, 2013, p. 90)*

The allure of becoming an astronaut is typified in that precious moment they step out into the weightlessness of outer space and are awestruck. The transformational experience where oceans are in full sight, mountains and canyons are specks of brown and gray, and clouds sprinkle white blotches on the globe, induce feelings of awe, transcendence, and spirituality in what researchers call *The Overview Effect* (Yaden, Iwry, Eichstaedt, Vaillant, Newberg, Slack, & Zhao, 2016). The overwhelming emotion produced by this event have been present in every manned space mission since the inception of the first space shuttle. Their ascent to these heights can only be described as transformational shifts in perspective, as these event produce lasting emotions that all but leave once they return to Earth. *The Overview Effect* is a highly subjective experience, given that ninety-nine percent of the world's population will never experience it, but it poses the question, what can we do to derive extreme positive emotion and meaning from our work (Yaden, et al., 2016)?

While this coveted vantage point takes decades for some of the most elite human beings to reach, perhaps we can answer this question by reverse engineering their journey to the ascent. The intense level of training, commitment, and resilience required of astronauts parallels the emotion evoked from seeing the curvature of the Earth. From that standpoint, whether one is a bus driver, manager, or coach, their investment into seeing their work become self-transcendent will determine their heights. Yaden (2016) argues that awe and self-transcendence are among some of the deepest aspects of the human experience, which undergirds the belief that spaceflight extends the boundaries of our psychological well-being. If awe alters our actions and thoughts, then it is important that we examine how to normalize it. Diving deeper into the realm

of awe, scientists suggest that awe fosters a sense of spirituality, which in the context of the workplace increases job satisfaction, leadership, and profits for organizations (van der Walt & de Klerk, 2014). I will explore this concept in more depth, but it is crucial to point out the widespread benefits of awe, including perceptual vastness, increased positive emotion, and self-transcendence as a new pathway to performance (Yaden et al., 2016).

To return to the ladder, scaling reach rung requires an extra-terrestrial effort if we wish to experience high performance. Humility, positive emotion, resilience are just some of the key aspects in astronaut training that elevate them to these levels of accomplishment. These outcomes of spaceflight are inspiring anecdotal pieces of evidence that resonate with most. To ensure its functionality on Earth we must operationalize these outcomes into a down-to-earth framework. No leader rises to the top alone, which is why I propose that to sustain high performance it will require an advocate who will inspire and serve as our well-being mission control, aiding leaders on their quest to high achievement. Let's head down the ladder.

## **Part 2: The Descent**

*A high-octane experience only enriches the rest of your life – unless, of course, you are only able to experience joy and feel a sense of purpose at the very top of the ladder, in which case, climbing down would be a big comedown. (Hadfield, 2013, p. 145)*

### **Bringing Awe Down to Earth, Lesson for Inspiring High Performance**

As an Olympic coach puts a sprinter through grueling training to shave tenths of a second off a race, astronauts undergo decades of training for hour-long tasks during spaceflight. To reach the highest performance possible, astronauts approach training as the most significant

aspect of their success. In this section, we will cover the transferable skills of astronaut training that can to inspire professionals to reach unprecedented levels of accomplishment, perspective, and performance.

### **Transferrable Skills of Astronaut Training**

The challenges that astronauts face in their professions are not unique to the workplace. The outcome of their training equips them with resilience to overcome obstacles, perspective to assess their problems, and collaboration to reinforce relationships. Our ability to leverage these skillsets embolden us to perform under ideal and undesirable circumstances on the job.

In a study done by researchers measuring the changes of hierarchical values associated with space flight, the highest-ranking values were Achievement, Enjoyment, Self-Direction and Stimulation (Suedfeld, Legkaia, & Brcic, 2010). Furthermore, when astronauts returned to Earth, their recognition in society and new influence showed decreases in self-doubt, anger, and isolation. Despite challenges that astronauts face during spaceflight, the research suggests a deeper sense of meaning and self-transcendent concern for others as the output. From a positive psychology perspective, we know that a sense of accomplishment and achievement is one of the key ingredients to enhance our well-being. Executives should focus on cultivating those elements to thrive despite the negative experiences that are typical of any job. If there is not a proactive effort on our behalf to enforce the attributes of astronaut training in business, the challenges that come along with any highly stressful environment can warp workplace culture and decrease performance. I recommend that we mechanize these attributes via a positive executive coaching program that uplifts anyone onto the ladders of their dreams, hoisting them up for high-performance.

## **Executive Coaching**

*Not surprisingly, leaders who imagine that they can handle all these pressures on their own are more likely to self-destruct and either make poor decisions or none at all. The need to avoid this kind of development is the reason why so many executives are increasingly turning to coaches for help. (Kets De Vries, 2014, p. 78)*

Executive coaching is an oversaturated term that underserves the population it is intended to help. In today's increasingly competitive working environment, organizations are investing a substantial amount of resources into coaching to build a generation of future leaders. Forbes magazine estimated that in 2016 corporations spent approximately \$1 Billion dollars on executive coaching (Stahl, 2016). This staggering figure speaks to the magnitude of assistance that executives require to maintain effective leadership. In Alec Levenson's (2009) research to measure and maximize the business impact of executive coaching, he defines coaching as: "a tool to improve performance or executive behavior, enhance a career or prevent derailment, and used to work through organizational issues or change initiatives" (p.103). This definition is idealistic, however, as this field gains popularity, findings of diluted, stale methods are not delivering the desired results, jeopardizing both coaching's efficacy and leaders' reputations.

This dearth of desirable coaches has forced organizations to seek out innovative ways to find support for their leadership. To meet this demand, coaches are utilizing learnings from psychology and psychotherapy to create new frameworks for their models (Osatuke, Yanovsky, & Ramel, 2016). These frameworks shift the focus of CEOs from profit and loss to becoming mindful, collaborative, and sensitive to the emotional and psychological temperament of their employees. These focal points are byproducts of promoting well-being, which puts positive psychology in a unique position to supply corporations with these desirable tools. I submit that

the attributes of astronaut training fused into an executive coaching program will pique the interests of CEOs and managers alike. The inspiration that flows from the imagery of astronauts to perform, explore new territory, and commit to excellence resonates across any level of leadership.

In this section, we will explore the process of constructing effective coaching models along with discovery of the challenges contemporary models face to increase individual and organizational performance (Osatuke, Yanovsky, & Ramel, 2016). From this exploration of successful and failures, I will introduce a down-to-earth coaching model for high performance will elevate executive performance and well-being while transforming perspectives of how to lead at work.

### *Contemporary Coaching Models: Their Challenges and Successes*

Levenson (2009) conducted a study of twelve coaching engagements at four Fortune 500 companies through structured interviews. The aim of the study was to address methodological and conceptual obstacles in measuring business impact of coaching. The findings proved it extremely difficult to link a direct impact of coaching on business outcomes. Many of the coaching models in this study focused on enhancing leadership behaviors without structure or ability to connect the behavior to action. This vague approach led to stale or negative results on business impact (Levenson, 2009). Coaches cannot inspire high performance without providing a pathway to direct impact and measurable results. Just as it takes intense, specific training for success during spaceflight, executive coaches must provide structure with direct business and well-being impact.

There is no express train to high achievement, as proven by the years of hard work that astronauts and leaders alike must bear. A quick-fix pathway to performance can erode the efficacy of coaching if clients bypass effort and excellence in poorly constructed coaching models. The process of coaching requires the coach to have a mastery of their material and thoughtfully deliver a series of small nudges over time to ensure the executive shifts their behaviors and actions into a framework increases performance (Bozer, Sarros, & Santora, 2014). Building cross-functional relationships, demonstrating empathy, and agenda setting are the fruit of robust coaching models (Levenson, 2009). If coaches do not consider their engagements with clients as a journey with valleys and peaks, then their models will not be designed for long-term success (Levenson, 2009). Executive coaches are not messianic figures meant to resurrect failing organizations or leaders; they should serve as partners to their client, helping them to unlock the dynamic gifts that they possess. Therefore, enabling executives to have an awareness of the exceptional inner strengths, while paying attention to the strengths of their subordinates is the marking of a brilliant leader.

Research asserts that coaches should present clear, practiced methods when attempting to improve the performance, attitude, or impact that executives can have on business (Bozer, Sarros, & Santora, 2014). These models must be contextually relevant and easily implementable. Astronaut training and positive psychology are rich with relevant tactics to keep executive performance from abating. It is with this truth that I introduce a positive executive coaching model, grounded on evidence-based research, and created to inspire executives to achieve high performance.

**Positive Executive Coaching: A Five-Step Model to Inspire High Performance**

*The person we have the greatest power to change is ourselves. (Achor, 2010, p.199)*

Some may view that the descent for astronauts as a digression from a positive experience that can never be matched on earth. I am emphatically against that notion. For any leader who is curious on how to sustain the elation they experienced at the zenith of their accomplishments, this program provides the answer. This five-step model, which mimics the lifecycle of spaceflight, will stretch executives, encourage them to collaborate, build effective problem solving, transform their perspective, and outfit them with the tactics to make awe the essence of their leadership. Each step will have an action plan for the coach to guide the client on this sojourn. Yes, it is difficult to master these concepts, however, for the coach who believes unequivocally in the potential of their client, this program will succeed in its intention.

**Step 1: Pre-Launch into Flow**

*The upshot of all this is that we become competent, which is the most important quality to have if you're an astronaut or frankly, anyone, anywhere who is striving to succeed at anything at all.*

*(Hadfield, 2013, p.36)*

*Goal:* Increase the client's capacity for top performance by instilling in them a sense of mastery for their role. The client's credibility with their colleagues is rooted in their contextual knowledge. There is no success in this mission of increased performance without a leadership style of confidence through competence. The client must aim to operate in a perpetual state of *flow* where they are fully engaged at work and make an investment to be experts in their craft. Communicate to the client that their proactive decision to be astute in all requirements of their

role is where their journey of excellence begin. The rippling effects of *flow* will offer the client a deep sense of meaning from work, increase their positive emotion, and performance. This must be ground zero for all executives, as a leader in *flow* never stops their learning or growth.

### *Method*

*Step 1:* Partner with the client to make an “*Excellence in Engagement*” action plan. Print out the job description of the executive and the company’s mission statement. Work with client to highlight the two areas of their job description where they are the most exceeding expectations, and highlight two areas where they need to improve. Choose one aspect of the company’s mission statement that resonates most with the client’s personal beliefs.

*Step 2:* Take these strengths and opportunities they listed and collaborate with the client to sharpen two strengths on the job weekly. Take the opportunities for improvement and have discovery sessions why those areas are difficult. Conduct research on the strengths required to excel in those opportunity areas and create a weekly goal to commit to improving in those areas.

*Step 3:* Over the course of eight weeks, check in with the client’s progress and challenge them to record the experiences of sharpening areas of strength and weaknesses. Each week the client must complete one altruistic action at work that reflects the specific area of the mission statement that resonated with them.

*Step 4:* After eight weeks, have a session with the client to review the results of their action plan and measure how they adapted to a mindset of engagement through excellence by capturing feedback from them and a peer of theirs.

*Background:* High-performers often possess a specific set of skills that enable them to succeed. While characteristics such as being dynamic, hardworking, and admirable are beneficial, competence is the launch pad for performance. The necessity for mastery in one's expertise builds confidence in colleagues and serves as a gateway to *flow* (Csikszentmihalyi, 1990). This ability to experience positive emotion and high productivity are byproducts of *flow*, signaling to leaders that their engagement and performance are linked to their knowledge base.

Research on the developing and acquiring competencies suggests that they set foundations for future growth and confidence in resourcefulness (Snyder, Lopez, & Pedrotti, 2011). The confidence through competence leadership style necessitates a lifestyle of relearning, as leaders must constantly evolve. This need for contextual knowledge is a mutual requirement of the coach. Research measuring coaching effectiveness found that an academic credibility was positively related to coaching, resulting in greater improvement in the client's self-awareness and job performance (Bozer, Sarros, & Santora, 2014). No one is exempt from education; knowledge widens our perspective and sets a dynamic of trust and confidence in the leader. This trust improves executives' ability to ascend to their desired heights of accomplishment (Bozer, Sarros, & Santora, 2014).

**Step 2: Lift Off with Resilience and Perspective**

*Goal:* Learn how to flourish in any circumstance at work, whether it is rough terrain or smooth sailing. The ability to flourish is rooted in the perspective the leader takes towards success and failures and the resilience training that allows them to mitigate any problems they face. Inspire the client to go into work each day with the elevated perspective of one who is well prepared for high performance.

*Method*

*Step 1:* Have the client take inventory of the most common positive and negative thought patterns that inhibit or enrich their efficacy as a leader. From the list, create an action plan to cultivate the positive perspective that allows them perform well. For the negative thought patterns, and conduct a review session of each negative thought pattern to see where the root cause exists.

*Step 2:* Create a sequence of verbal positive affirmations and cognitive combat tactics that dispel negative thought patterns and increase the clients' positive affect. Ensure the client recites these affirmations before work each day. Put the client in the hot seat each day for two weeks and have them practice the cognitive combat tactics by confronting the client with the negative thought patterns and record their ability to stymie any negative thoughts when feelings of doubt, insecurity, or fear arise in the exercise.

*Step 3:* Have the clients create a vision for their ideal performance, mapping out each hour of their day. Ensure that they take this vision and recite it to themselves, the coach, and a close friend each week.

*Step 4:* The client must contact HR and respond to an employee relations, talent management, and cultural issue each week. Proactively promoting resilience through real problems, gives the client a sense of meaning and purpose that helps to keep them engaged and test the efficacy of their positive affirmations.

*Background:* Leaders must be aware of seen and unseen factors that can influence performance. This is where we marry preparation with perspective (Froman, 2009). Research shows that self-efficacy correlates to task effort and performance, while high-generalized self-efficacy results in even greater success (Judge, 1998). Individuals with an internal locus of control believe their behavior controls their lives. How leaders are perceived on the job can greatly affect the actions that we take. It is not enough to be armed with the right perspective; executives must master the actions to ensure high performance. Employing Frederickson's (2009) Broaden and Build Theory affords leaders to assess problems accurately with an expanded cognition and action plan that helps promote healthy decision making.

### **Step 3: Crew Cooperation**

*Goal:* The client must cultivate relationships with exceptional emotional intelligence and celebrate collaboration. During times of high stress and success, the interconnectedness of an

organization equips the leader and individuals with the confidence that as a collective, not as individuals, their combined resources will carry them through any difficulties.

### *Method*

*Step 1:* Work with the client to identify the top five relationships at work that contribute to their well-being. Have the client set up time weekly with those colleagues to create moments that matter, where they can share dreams, frustrations, and informal conversation to foster trust. After each meeting, have the client instruct his colleagues to do the same exercise with five of their peers, so that positive relationships and transparency permeate the work place.

*Step 2:* Work with the client to identify the top five performers at work. Meet with each of these performers individually and once a week collectively to share what their high and low points were each week. Ensure that the client publicly praises the top five performers to set a tone of gratitude when employees have accomplished good work.

*Step 3:* Challenge the client to meet ten people each month in their organization, recording their interactions and afterwards connecting that person to a top performer or well-being contributor to build cross-functional relationships.

*Background:* In establishing positive relationships at an organizational level, we increase well-being for individuals and the collective. In Jane Dutton's (2003) work, she refers to High Quality Connections as the dynamic social connections at work that give vital nutrients, strength,

and mutual awareness to another. Conversely, when connections in the workplace are corrosive, it depletes and damages the physiological and emotional toll on organizations' employees (Dutton, 2003). Executives must prioritize and preserve positive time for interaction. Even if it challenges the status quo, it is key to radical change. It is in this commitment to make positive relationships a pillar of your organization we see virtuous organizations begin to thrive.

#### **Step 4: Make Awe Available**

*Goal:* Determine what in the client's work induces a sense of awe. Cultivate the people and perspective that enables them to experience awe on a normative basis. In order for the leader to be transformational, they must redefine what high-performance means to them and their organization. Awe-inspiring moments should not be solely measured by forecast shattering financial performance. The client must make awe personal and public, so that the entire organization is committed to ignite a culture of meaningful work, prosocial behavior, and elevated perspective. The client must convey that awe is not out of reach for anyone and must create access points for any person to experience it.

#### *Method*

*Step 1:* Design a virtual awe arena, which will serve as a public forum where employees can place the examples of work or initiatives that are inspirational, prosocial, and innovative.

*Step 2:* Ensure that the client creates a specific section to contribute in the arena each week, where all employees have the ability to see the contributions that leadership has

made and allow them to post reactions. This fosters a sense of prosocial behavior where employees can offer their perspective on how leadership is doing on instilling a culture of awe at work.

*Step 3:* Nominate an employee each week with an Astronomical Awe Award for awe-inspiring work and give them a chance to speak to the effects it has had on their performance, professional and personal life. This creates a culture of awe that is not as competitive as it is motivational.

*Background:* Employees must not view the concept of awe at work as an anomaly. The 76-year old farmer Serafina who Csikszentmihalyi (1990) illustrates as a poster child for *flow*, works sixteen hours a day milking cows, bailing hay, and tending to the orchard. The work for Serafina is hard and unglamorous but her full immersion in her work creates an awe-inspiring and pseudo-spiritual state despite the menial tasks of farming. Researchers in neurophenomenology have shown that experiences of awe and wonder in showed differences in neurological activity (Reinerman-Jones, Sollins, Gallagher, & Janz, 2013). From a physiological and psychological standpoint, awe moves the needle on our ability to flourish.

When executives can unite the spirit of Serafina, who regarded her work as beautiful, and astronauts who describe viewing the Earth as a religious experience, they can build virtuous organizations (Froman, 2009). These organizations promote EQ, team-oriented behaviors, and develop a deeper sense of self. With awe comes meaning and purpose, and when executives make these virtues the mission statement of their company and actions, it brings purpose and profit to corporations.

**Step 5: Return Transformed**

*Goal:* Work with the client to create a triple bottom line and provide the company quarterly. Leadership must be more than occupational; it should be a spiritual experience that prioritizes well-being, positivity, and purpose above profits. This public level of accountability will inspire the CEO to make sure that his leadership improves the company's performance across all three areas.

*Method*

*Step 1:* Work with the client to administer a survey to measure the general level of well-being and purpose-filled work that employees in the organization experience. From there, take common findings of the results and develop programs, such as mindfulness moments, athletic competitions, yoga, or art classes to promulgate these patterns of well-being or purpose. Create an achievable well-being and purpose forecast for the employees.

*Step 2:* Work with the executive to create a quarterly town hall to report on the triple bottom line results, showing the delta between forecast and result, along with a for Q&A from the audience where the executive will be present to respond.

*Background:* The final step in this model deals with the ability for executives to recraft what it means to be a leader for their organizations. The elements of promoting well-being: positive emotions, relationships, meaning, and accomplishment have to be in the genetic makeup of an organization's leader. As astronauts are called to a literal higher path, executives must aim

to go ethically into the cosmos. The concept of a triple bottom line that focuses on People, Planet, and Profit is measured in today's increasingly spiritually conscious workforce (Fry & Slocum, 2008). Research has shown that workplace spirituality positively influences job satisfaction and increases well-being for employees throughout organizations (van der Walt & de Klerk, 2014). Maximizing the well-being of employees by offering workplace spirituality programs such as yoga classes or workplace chapels boost positive human health, psychological well-being and employee commitment (Fry & Slocum, 2008).

A spiritual leadership style inspires and empowers employees through a culture of personal fulfillment simply by offering employees the opportunity to express themselves spiritually. The financial benefit shown in Fry and Slocum's (2008) research reflected a 13% increase in sales growth at a company that prioritized workplace spirituality. It is important to note that offering this spiritual option does not mean there must be rigid religious practices in place, as fostering one religion can be offensive and decrease morale or well-being. A spiritual workplace is one that rejuvenates employees in the form of their personal connection to people or practices beyond themselves. This last and final piece to redefining organizational culture is an obligatory component to a virtuous organization.

#### *Aims for the Positive Executive Coaching Program*

When it comes to inspiring high-performance, executive coaching models must explore the inner workings of their clients' values, struggles, and ambitions. Throughout the five steps, this program requires a gradual elevation in thought and action to yield the results of optimal performance. While there are no perfect plans to address every individual, the universal appeal of these concepts should serve to help a generation of leaders who want to transform the decisions

that they make at work and in life. For the field of positive psychology, the benefit of coaching programs help the field to bolster the economy of business and well-being if implemented. Each step will vary in its efficacy and possess its own set of challenges, but the hope is that executives explore deeper parts within themselves to reside at the pinnacle of high performance.

## CONCLUSION

*The most important lesson I have learned as an astronaut: to value the wisdom of humility, as well as the sense of perspective it gives you. That's what will help me climb down the ladder. And it won't hurt if I climb up a new one, either. (Hadfield, 2013, p. 282)*

Astronauts embody one of the highest echelons of accomplishment, meaning, and purpose that one might derive from a career. The journey to become an astronaut or successful CEO can be a difficult ladder to climb, but the courage to try can inspire others to pursue similar paths of accomplishment and meaning. As executive coaching becomes more and more commercialized in the modern workforce, we see this positive psychology as a window into understanding and restructuring the leadership style of executives.

This positive executive coaching program serves as an instruction manual for well-being, enabling awe to be a more common experience for the executive. The success of this program requires significant hard work and deliberate action that requires new levels of insight and internal exploration from the executive. The fascination of a high performer's life is not a tale of perfection; it is a narrative of decades of process and preparation to endure more obstacles. In the context of high performers that are nearing the top of that figurative ladder of performance, their good life will be earned through earnest effort that can exceed their highest expectations.

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