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Avoiding the Third Strike

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The Talk

It was 1999. I was 22 years old, a recent college graduate and a newly minted second lieutenant in the United States Air Force. I was headed, with equal amounts of pride and trepidation, to my first assignment in Sumter, SC. My father and I made the long trek from Tucson, AZ in my brand-new Jeep Cherokee, pulling all my worldly possessions (consisting of a bed, a couch, one dresser, a small nightstand, a TV, and an unreasonably large collection of Star Wars memorabilia) behind us in a U-Haul trailer. After I settled into my temporary living quarters, I had to drop my dad off to the nearest airport for the long flight back home. It was during this drive that he imparted some of the most profound words of wisdom I have ever received. He proceeded to tell me that in this life, I already had two strikes against me. I was Black, and I was female. He told me to never, ever, give them the opportunity to call that third strike.

I need to unpack this statement a bit, particularly because some are likely taken aback by what is seemingly such a negative, disheartening, and cruel thing to say to someone as she goes off into adulthood. But those of us in the African American and Black communities recognize this wisdom for what it is: yet another variation on a theme known as *The Talk*.

The Talk is not something that one will find quantified, studied, hypothesized, and researched in the annals of scholarly works. Not yet anyway. It is too soon and for many the concept is still too new. It is a heavily burdened rite of passage that is passed down from one Black generation to the next. It is the preparation for bias, maybe even outright racism, and an elucidation of the rules for how to behave and survive an encounter with authority (Plourde & Thompson, 2017; Wright, 2019). It is rooted in the idea that *you are different, they will always see you as different, they will treat you as though you are different,* and that that treatment *will likely be unfair*.

Not one day after I sent my father back west, I saw that idea in action. I was tailed by a police officer for five miles before he finally pulled me over. I was lost, teetering on the edge of panic, and desperately trying to navigate via Rand McNally. I was a stranger in a strange land, and he knew it. Regardless, his gaze swept over my Jeep and U-Haul both sporting AZ license plates (the latter with a mural of the Grand Canyon on the side) and my AZ driver's license and insurance card before asking "you from around here?" I looked at him incredulously before remembering myself and what I had been taught since the age of five. I answered, "No sir." After another ten minutes filled with *yes sirs* and *no sirs*, he told me I looked like "I don't belong around here" before he finally let me go. Welcome to South Carolina.

I managed to avoid a third strike that day, but it came for me about a year later when I was formally reprimanded for *failure to pay just debts* and *conduct unbecoming a military officer* in accordance with the Uniform Code of Military Justice. That didn't happen because I was irresponsible or insubordinate. It happened because of another encounter with the reality my dad had tried to explain. Wanting to move into a nicer place, I had made arrangements over the phone with the landlord of my friend's rather sweet, converted barn out in Camden, SC. I was to take over her lease because she was moving to another base. I terminated the lease for where I was, packed up all my worldly possessions once again, and moved the 12 miles down the road to

the new location. On the day I was to sign the contract and get the keys from my new landlord, he did a visible double-take upon meeting me. His brow furrowed and his eyes narrowed as he took me in. He blurted out, "but you sounded white over the phone!" Then he told me that there had been a mistake; that he was going to rent to someone else. I was effectively homeless and it took three years to fully recover from the months of financial insecurity that followed. My pride, my credit, and my military standing all suffered severe blows in the wake of that day. I could choose to still be bitter, but it was also because of this that, having been ousted from my original military career field, I eventually trained to become an aircraft maintenance officer – a change that drastically altered my life's path for the good. To this day, though, I cannot help but wonder *what exactly does "white" sound like?*

Microaggressions

Fast forward to my first official roundtable as the new Officer in Charge for an aircraft maintenance unit. The commander had several units to go through and I was last. I watched, solemnly, as each officer before me gave their short brief. At the most this was followed up by one additional question: at the extreme end, two. By the time it was my turn I felt I had a feel for the situation and what was expected. I gave my brief. It was followed up by one question, then another. Then twelve more questions. A Chief Master Sergeant was seated behind the commander. I was watched his eyebrows raise higher and higher as the commander went through seemingly trivial details about the disposition of every one of the aircraft under my care. The Chief might have been surprised by the cross-examination, but I was not. I was prepared. I had to be. While I was not the only minority at the table, I was the only female, and I had a third strike to avoid. I spent months proving myself time and again while serving as an aircraft maintenance officer but by the time I was assigned a young female lieutenant to mentor and bring up behind me, I noted that she received decidedly less scrutiny at the roundtable. It was still there of course, but there was less of it. Bookmark this passage as I will refer to it again later in this composition.

During my twelve years of active duty, I certainly made my share of mistakes, but I also became Maintenance Company Grade Officer of the Year for the command level, Company Grade Office of the Quarter, and my maintenance unit was awarded unit of the year. I was awarded several times for skill in leadership and management, and most importantly, I was selected to train as an accident investigator. Out of this I developed a passion for discovering the causal factors behind aviation accidents and the role human factors play in that.

Fast forward again to my first job post-military. By now I had added two Master's degrees to my curriculum vitae; one in professional and technical writing, and the other in aeronautical science with emphasis in human factors. It was my second week at the Federal Aviation Administration (FAA), and I had been hired on as the human factors and aircraft maintenance member of the general aviation magazine. I still wanted to pursue a career in accident investigation, but for the moment I was ecstatic and so darned proud to be there.

Standing in the hall outside the break room, I was approached by a gentleman. I did not know him and he did not know me. He proceeded to ask me where the conference room was, could I make a reservation for his meeting, and what would I need to set it all up for him?

"What?" I asked, not understanding.

"What?" He responded, equally confused. The realization struck me about a full minute before it did him. He thought I was the administrative assistant for our branch. After all, I was a Black female, *what else would I be*? Flustered and finally realizing his mistake, he abruptly apologized and hurried away. He may or may not have learned a valuable lesson that day, but I certainly did. This scene had been (and would continue to be) repeated in varying ways for my entire career.

Microaggressions are "the everyday slights, indignities, put downs and insults that people of color, women, LGBT populations or those who are marginalized experience in their day-to-day interactions with people" (Sue, 2010). This particular microaggression demeans people of color as being second-class citizens that are incapable of occupying positions of status or authority and relegates them to a state of assumed servitude (Sue, Capodilupo, Torino, Bucceri, Holder, Nadal & Esquilin, 2007). Please do not misunderstand or misconstrue these words as disrespect for such work. The administrative assistant profession is an essential one requiring equal measures of communication, people skills, attention to detail, and time management. The issue here is the assumption that this is the only position I could have possibly held in a building full of aviation professions.

Similarly, the ability to "sound white" might seem like a compliment to some people but there is little doubt it is an extremely backhanded one. These aggressions serve as a constant companion and reminder as I navigate my life. The balance I must strike between asserting my authority while avoiding being labeled with malicious adjectives such as *emotional* and *an angry Black*, is precipitous.

Where My People At?

One more leap forward brings me to the pinnacle of my academic career – the pursuit of a Doctorate of Philosophy in Aviation from Embry-Riddle Aeronautical University from which I was already a worldwide campus alum. After a rather intense application and vetting process, I will never forget the first time I beheld the Daytona Beach campus having been accepted to the program. Looking around that first day when all the active cohorts had been brought together, I realized with instant clarity and dismay that I was one of only three Black students in the program. Further, the other two were male and were international students from African nations. A moment of sheer hysteria rose in me as my thoughts and emotions rioted.

"Where my people at? Do they not know where to find us?"

For that wild moment I was faced with the notion that I would once again have to justify my presence by constantly proving that I belonged, that I earned it, and not because I was just some *affirmative action* case. This was in spite of the lingering, omnipresent, suffocating doubt that made me wonder if I was, in fact, an *affirmative action* case. Sometime later during the residency, a white male member of my cohort lamented that everything we had experienced so far was a "bit overwhelming" and that he was "just going to sit back and lay low for a semester

or two" until he "got his bearings" and "decided if this was for him." I laughed rather bitterly at that. How does the only Black woman in a room of 100 other people get to "lay low?"

The answer to that is that she doesn't. Whether it be in the military, in federal service, or in academia, as a Black woman in aviation, I have stood out every single time. I do not get to "lay low." I have had to charge forward. Willfully. With determination and purpose, and vigor and strength. I had things I wanted. I had plans. I knew what I was about. I had to fall down and get back up and press on and *just do the darn thing*.

Rewind to that moment where it seemed I had to know four times more than the men at the table in order to appease my commander. The truth was that I had come prepared with *five times* more knowledge. My Chief would chuckle at how much I would prep for each meeting; for the *just in cases* and the *gotchas*. If there were things I did not know, I immediately found the answer and followed up within the hour the meeting concluded. I did this to prove I belonged at the table. I did this, and still do this, to avoid a third strike.

Diversity Now

My entry into aviation was the result of some unfortunate circumstances but I feel extremely blessed for the way it has worked out. Since the career move, I have embraced it and I have thrived. My sense of rightness, fit, and belonging was a little challenged in my early days but it all snapped firmly into place the first time I walked into a maintenance unit. Today, when I look around me and see so few who look like me, I feel even luckier that I am where I am.

But one who looks like me, or variations of me, should not have to be "lucky" to get into this particular career path. Rather, that person should be aggressively pursued for the difference they reflect and the promise they present. 51.1% of the United States' population is female (Statista.com, 2021) but only represents 8.4% of the total pilot population and 30% of the non-pilot aviation population (WAI.org, 2020). The overwhelming majority of that latter number are flight attendants of which women represent 79.2% (WAI.org, 2020). Minorities (those that identify as non-white) make up approximately 24% of the United States (Census.gov, 2019) but reflects in less than 10% of both pilot and non-pilot aviation fields (Datausa.io, 2019). There needs to be an abrupt and radical change. We need diversity now. Diversity in the workplace begets new ideas, experiences, creativity, and perspectives. In turn, these things facilitate more effective and efficient problem-solving. In a career such as mine that focuses on maintaining the safety and integrity of aviation, building better risk mitigations is paramount. My face and my story are far from being enough, however.

As a student and scholar of human behavior and performance, I find it a fallacy to simply tell people to *do better* or *appreciate diversity*. The homogeneity of faces that we currently see is not something that can be changed with a dedicated month of acknowledgement and some online training. The science of familiarity dictates that the more times you are exposed to a certain stimuli, the more you become accustomed to it, appreciate it, and even register a sense of loss when it is removed (Bornstein & D'agostino,1992; Raghunathan, 2012; Mullin, 2015). The familiarity breeds comfort. Let's revisit my young lieutenant going to brief for her first time at

the roundtable. By the time she had arrived, the environment had grown slightly more accustomed to ponytails and buns versus high-and-tights and 5 o'clock shadows.

The mere-exposure effect could go a long way in changing the course of diversity in aviation, but it does so under a level of Catch 22 that Captain Yossarian himself would find confounding. In order to become comfortable with diversity, a person has to be around diverse individuals. But all of this is incredibly difficult when we are naturally *uncomfortable* with the unfamiliar to begin with. The difficulty is compounded when society's implicit bias dictates that the very people we seek to diversify with have been forced to walk their entire lives with one or two strikes against them.

These unique hurdles make it even more difficult to gain purchase in an already challenging and dynamic environment such as aviation, or any STEM related career field for that matter. While all novices face challenges learning something new, minority groups' challenges are compounded in such a way that the chances of success are significantly lower (Bennett, 2001; Burke, Mattis, & Elgar, 2007). Women, and racial, ethnic and religious minorities are more likely to experience problems of alienation and marginalization. They are far more likely to endure a lack of representation and empathy. This is particularly so if the curricula are monocultural in nature or if implicit bias negatively affects student/instructor interactions (Burke, Mattis, & Elgar, 2007). The support systems that are typically in place for students/trainees are often not sufficient to address these perspectives.

I think back to when I was feeling very isolated, and yet very exposed on my first day of residency. I distinctly remember looking around and wondering who I could possibly talk to about my concerns. Eventually I came to know and depend on the mentorship of an amazing Latina professor in the program, but those early days were uneasy. To infuse more diversity into the workplace, the effort must start at the primary school level and continue into the internship and first hire levels. Traditional recruiting methods, particularly into aviation programs, are of no use if the diverse individuals we seek never encounter them. We simply must do better. Some questions to ask are:

- Are we, as an industry or in academia, equally targeting affluent suburbs *and* inner-city or rural schools when we advertise or present at career fairs?

- Are we making sure the people we send to engage in these forums are a diverse mix themselves? Do they represent different careers in aviation (e.g., pilots, ATC, maintenance, engineers, professional academics)?

- Have we invested in cultural, mental, emotional, and financial support programs to help allay some of the unique difficulties a person might have in trying to navigate an aviation program?

- Do we facilitate collaborations with developing nations in the hopes to establish new foundations for growth and development through cross-share?

- Have we taken the time to build educational platforms that celebrate aviation pioneers such as Eugene James Bullard, Bessie Coleman, Mary *Kus-de-cha* Riddle, and Katherine Sui Fun Cheung as equally as it champions the Wright Brothers, Charles Lindbergh, Glenn Curtiss, and Eddie Rickenbacker?

- And lastly, are we doing these things on a consistent basis as a routine part of operations and not just as a one-off special project?

Today I am a senior human performance investigator for the NTSB. My primary task is to determine how the human is able to perform within his or her own environment. By environment, I mean tangible constructs such as a flight deck, office, hangar, or air traffic control cab; as well as non-tangible constructs such as organizational behaviors, safety culture and operating parameters. I assess human-machine interfaces and human-human interactions. Within those assessments I must determine how an individual's training, behaviors, motivations, willingness, and mental fitness may or may have not contributed to a mishap. I pay close attention to the cognitive biases that we are all susceptible to as human beings, but because of my own experiences, I also consider if any implicit bias might have influenced performance. I recall an investigation where a pilot lost control of her aircraft while conducting an operation in inclement weather. The subsequent crash resulted in fatal injuries to all three occupants on board. The investigation revealed the company's directors placed pressure on their pilots to perform for it to remain profitable. It was also highly possible that the newly hired pilot was determined to prove herself as the only female in the organization, and as a result was less likely to decline a risky mission for fear of being labeled *unable to handle it*. This event struck a painfully familiar cord with me. I can't help but wonder if she might have been trying to avoid a strike of her own.

As a secondary function, I also provide research, data, and presentations on human performance, risk-based decision making, safety culture, and cognitive bias to a host of regulatory, industry, international, and academic forums. I feel it is my duty to take what I have learned so that I might educate others, but I have ulterior motives as well. Every time I step up on a stage, record a video, pen an article, feature on a Zoom or Microsoft Teams call, or commence an online podcast or chat, I do so knowing that it is my chance to provide that little bit of the diversity, that little bit of *familiarity,* that we all need. I also do so to help clear away some of the strikes, so that parents of Black children can retire *The Talk* for good and proudly launch their bright, capable, and eager offspring into a world that truly welcomes what they have to offer.

References

Bennett, C. (2001). Research on racial issues in American higher education. In *Handbook of Research on Multicultural Education*, ed. James A. Banks and Cherry A. McGee Banks. San Francisco. Jossey-Bass.

Bornstein, R. F., & D'agostino, P. R. (1992). Stimulus recognition and the mere exposure effect. *Journal of Personality and Social Psychology, 63(4), 545.*

Burke, R. J., Mattis, M. C., & Elgar, E. (2007). Women and minorities in STEM: A primer. *Women and minorities in science, technology, engineering and mathematics: Upping the numbers, 1, 3-27.*

Data USA. (2019). *Aircraft pilots and flight engineers: Diversity*. Datausa.io. Retrieved from https://datausa.io/profile/soc/aircraft-pilots-flight-engineers#demographics

Nettels, A., Eng, M., (2019). *Having 'the talk': Expert guidance on preparing kids for police interactions*. NPR.org. Retrieved from https://www.npr.org/local/309/2019/08/27/754459083/having-the-talk-expert-guidance-on-preparing-kids-for-police-interactions

Plourde, A., Thompson, A., (2017). The talk: Surviving police encounters while black. Utne Reader. *Notre Dame Magazine*. Retrieved from https://www.utne.com/community/police-racial-discrimination-zm0z17uzcwil

Statistica.com. (2021). *Total population in the United States by gender from 2010 to 2025*. Statistica.com. Retrieved from https://www.statista.com/statistics/737923/us-population-by-gender/

Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, Esquilin (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62, 4, 271-286*

Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. John Wiley & Sons.

United States Census Bureau. (2019). Quickfacts. Census.gov. Retrieved from https://www.census.gov/quickfacts/fact/table/US/RHI125219

Women in Aviation International. (2020). *Current statistics of women in aviation careers in the US*. WAI.org. Retrieved from https://www.wai.org/resources/waistats

Wright, B.C.T. (2019). *The one story: The evolving relevance of 'the talk.*' Newsone.com. Retrieved from https://newsone.com/3882217/the-talk-evolving-relevance/