

Equal Space on the Flight Deck: Challenging the Myth of the Professional Pilot

by

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A Thesis Submitted to the Faculty of Social and Applied Sciences
in Partial Fulfilment of the Requirements for the Degree of

MASTER OF ART IN PROFESSIONAL COMMUNICATION

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APRIL, 2020

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Abstract

Currently, women in the field of aviation constitute less than six percent of the professional pilot population, while the demand for pilots is unparalleled. The purpose of this study is to understand how female pilots have confronted barriers, and how their experience can inform a cultural shift, challenging the masculinized image of the airline pilot and making room for women on the flight deck. Despite the inherent sexism of aviation culture, these women achieved leadership roles on the flight deck. This interpretivist study was designed as a narrative inquiry through an appreciative lens. Nine women with between two to four decades of experience as professional pilots were interviewed. Their stories detailed their career experiences, capturing how historically they were excluded from leadership roles in the aviation industry as they were compared to the image of the mythical heroic male as the norm, and found lacking. The analysis revealed that masculinized leadership styles of the professional pilot and organizational cultural bias toward male pilots are still present in the aviation industry. Nonetheless, these women have both succeeded and augmented the image of the professional pilot by advancing and enacting feminine leadership values, by organizing their own networks, and increasing the visibility of women who fly. However, for a cultural shift to occur in their organizations, women must continue to communicate the different values and goals that have led to their success, and which are not reflected in the dominant image of the (male, masculine) pilot. In turn, the leadership in the aviation industry must recognize that, in order to create an inclusive flight deck to the benefit of all crew members, these women's voices need to be heard and feminized values need to be integrated into the culture.

Keywords: organizational culture, women in aviation, gender of organizations, narrative inquiry, appreciative inquiry, professional pilot, gender

Acknowledgements

The completion of my Master's is an achievement I share with many who have encouraged and supported me in this process. This accomplishment is a testimony to the interconnectedness of experience and the power of inquiry. I am particularly grateful to those who pushed me in this endeavour, and to those who pulled me over the finish line.

First, I would like to thank Dr. Virginia McKendry, my thesis advisor—the pull. Your sharing of knowledge truly transformed me. I will forever be grateful for your direction that encouraged and inspired me, let me soar with enthusiasm during the times in this challenge when enthusiasm was the best I could offer. I am also so appreciative of the collaborative support of the faculty at Royal Roads University, my thesis committee member, Dr. Jen Walinga, and especially Barb Collombin—the push.

I am grateful to the nine pilots who shared their stories. I acknowledge each individual spark. To my peers in the aviation community who believed in me, Captain Dan Rowbotham and Captain Patrick Fynes, and to the woman whose emotional support I rely on, Dr. Kathryn McCannell, you should know that without each of you, there would be no thesis.

And finally, the men in my life who I will always love unconditionally, my sons, Jack and Patrick Luetzger. You inspire me to live honestly and without regret, and to challenge the system.

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Introduction

The impetus for this research came from my experience of working for four decades as a commercial pilot and almost thirty years as an airline captain—yet, as a woman, also as an outsider in my industry. To fit into a masculinized culture, women have found it easier to change their behaviour, to adapt to the cultural norms associated with the image of an airline pilot, rather than speaking out and trying to change the masculinized culture to one that values women's equality and feminine leadership style (Neal-Smith & Cockburn, 2009, p. 33; Bridges, Neal-Smith & Mills, 2014, p. 2; Mills, 2006, p. 42). When I became a pilot in 1978, I too tailored my behaviour to fit in. There is evidence that an increased demand for pilots can be resolved by challenging the patriarchal system that denies opportunities to women because they are female, and opportunities appear as women imagine a culture that includes them. In this study, my research focused on understanding how women with similar experiences have adapted to fit into the masculinized culture found in the aviation industry. By adding women's voices to the research on aviation organizational culture, my aim was to create equal space for women on the flight deck, a space that values women's experiences and challenges the myth of the airline pilot as a heroic, white male.

The myth of the heroic male pilot is an artifact of a larger aviation industry culture. Organizational and leadership expert Edgar Schein (2017) defines culture as an “accumulated shared learning of that group...a pattern or system of beliefs, values and norms that come to be taken for granted as basic assumptions and eventually drop out of awareness” (p. 6). Mills' (2006) research on masculinized organizations argues culture is a “set of experiences that influence how people feel about the organization and who they feel is an appropriate or privileged part of it” (p. 35), and that once the beliefs, values and norms are defined, the

organization determines what kind of leadership is valued. Schein (2017) claims cultural change requires naming the problem and assessing the existing culture before starting a cultural change program, articulating, “cultures are nested within other cultures and create environments that are dynamic and changing” (p. 125). My study was focused on identifying, analyzing, and changing the culture of the airline pilot, nestled in the organization of the airline industry, as influenced by Western culture.

As professional pilots, women must learn to adapt to the “masculinized” culture predominant on the flight deck, meaning that it is a workplace culture predicated on the “default” male pilot, and on values of individual authority and heroism normatively associated with men and men’s work. Women have played a role in aviation since the Wright brothers first piloted a heavier-than-air machine, supported by their sister Katherine (McCullough, 2015). By addressing how the gendered “other” finds her way in this masculinized occupation, and asking the question, my research has been designed to both illuminate and challenge aviation’s masculinized organizational culture. It asks the question: *How can learning from women’s experience as professional pilots provide insight into transforming that culture into one that values feminine leadership style on the flight deck?*

Although women have a long history in aviation, there is scant information on women’s experience as commercial pilots—specifically, women who earn their living piloting airplanes. Women have held commercial pilot licenses since the dawn of aviation in the early twentieth century, supporting the war effort by ferrying airplanes during World War 2; however, not until 1973 was the first female pilot hired to fly for a Canadian commercial airline. The Royal Canadian Air Force (RCAF) first permitted women to train as pilots in 1979 (Render, 1992). When appreciating the history of hiring of women in non-traditional occupations, the time when

women first had access to the flight deck is pivotal (Mills, 2006). Today, women entering the flight deck still encounter many barriers: the beliefs about flying ability, the perceived gender differences in leadership ability, the organizational literature which emphasizes occupational gender differences, the lack of role models, the financial restraints of flight training, the “boys club” mentality, and the pervasive negative attitude among the traveling public (Neal-Smith & Cockburn, 2009). Understanding persistent barriers and gendered construction of organizational culture can lead to better understanding of recruitment practices and opportunities for women in leadership positions. There is a lack of research on women’s experience through women’s voices, and women are far from reaching equality status as professional pilots.

This interpretivist research looked to discover what female pilots know and envision for the profession. Understanding organizational culture through analysis of communication is common in interpretive research (Deetz, 1982) and engaging female pilots in communicating their experiences positively contributes to the research on the culture of the aviation industry. More specifically, broadening knowledge by including women’s experience can inform organizations on ways to shift communication; to value women’s experience by challenging the historical image of the professional pilot; to create opportunity for women while focusing on women’s leadership as professional pilots, while adding to our understanding of the cultural shift necessary for the progression of women in the aviation industry. Methodologically, the research was designed as a narrative inquiry, giving voice to women’s experience through an appreciative lens, rejecting the essentialist notions of women and men, and focusing on the social construction of gender in organizations. To gather the data for this study, I interviewed nine women who have broken down the barriers to the flight deck, despite “embedded practices, symbols and language” (Mills, 2006, p. 224). I used appreciative interviewing techniques to gather the stories, insights

and ideas of women who have overcome barriers and reconstructed the image of capable, professional pilots, with the intention of understanding how their experience can inform a shift in culture. Schein (2017) emphasizes that one strength of an organization lies in the “diversity of its subcultures” (p. 240) and that culture is “just an abstraction that refers to lots of concrete things such as structure, process, beliefs, values, and behavior” (p. 319). Schein’s theory on organizational change supports analysis of the data gathered through coding and thematizing through a cultural lens. Furthermore, advancing an organization culturally by methodically supporting women into “key positions of power” (Schein, 2017, p. 240) occurs through assessments of the strengths and weaknesses of a subculture, in this case, women pilots.

My goal has been to appreciate the knowledge through women’s experiences as professional pilots that creates opportunity for women, while expanding what it means to be a pilot and embody aviation leadership. Bushe & Kassam (2005) say the story of organizations through an appreciative lens can have the effect of imagining “new ways to think about and discuss their organization” (p. 163) and that, “[t]o some extent, changing culture is about changing ideas” (Bushe & Kassam, 2005, p. 164). By understanding and appreciating women’s stories of how they have already created space and opened the flight deck door to a masculinized culture, my findings can inform how the aviation industry can construct the shift necessary to create equal space for women and how principles gleaned from experiences are of benefit to the profession. These pilots have evolved what the literature refers to as feminine or relational leadership styles as they have earned the rite of passage to become captains, demonstrating leadership in a manner that represents their values and in a way that is aligned with shifts in aviation culture more generally. My findings indicate that aviation organizations seeking to create a culture of inclusion and pilot diversity, and that also desire to understand the effective

leadership style that best fits into the context of the twenty-first century flight deck, can create a more equitable, safe, and successful organization by valuing “feminized” attributes of sharing knowledge and building relationships. Organizational change grounded in the feminine leadership values and the principles of humble leadership can be applied to groups seeking a strategy to create a cultural shift. This research demonstrates that despite significant barriers, these women have persevered and have learned to lead in a collaborative and communicative manner, to the benefit of the organization, and to the benefit of their fellow crew members.

The women’s leadership styles are of particular significance at a time when the flight experience of new pilots is lower than historically has been required, and as women who value sharing their knowledge create an environment where these pilots are encouraged to engage in dialogue and learn from and with their more experienced peers. Airlines and the air force aim to increase diversity in the pilot ranks; therefore, creation of a culture that values women’s experience can lead to a shift in the organization and encourage women to join what are still quite sexist organizations built on an assumption of an unencumbered male worker. Appreciating women’s experiences, and building upon those experiences, can forge a vision of a gender-aware aviation workplace culture that respects women’s capability. My findings will be shared with human resources leadership and airline organizations that desire to create change, for the purpose of imagining women participating in all roles of leadership in a flight operations department that values their contribution.

Literature Review

The literature review offers an overview of the research on organizational culture and studies of commercial aviation cultures, gender, and feminist critiques of organizations and organizational leadership, women's experience as professional pilots and relevant insights from leadership and feminist theory. Understanding gender as a complex discursive system of meaning through which we form identities in aviation organizations, and how that applies culturally to the masculine norms of power and leadership that informs pilot's experience and identity, is key to framing a study that seeks to learn from female pilot's stories.

Organizational Culture and Communication

The study of organizations is increasingly associated with the concept of culture. Smicrich (1983) outlines the ways culture is created in organizational studies, "as a critical variable or as a root metaphor" (p. 339), reminding us that "organizations are themselves culture producing phenomena" (Smicrich, 1983, p. 344). This section of the literature describes how culture is created in organizations, in order to set out a framework for looking at the aviation industry at the level of culture, as articulated in the work of Edgar Schein.

Organizational communication scholar Edgar H. Schein (2017) tells us organizations create culture through a shared knowledge of values, assumptions, and artifacts. "Culture is defined by what a group has learned in solving its problems of external adaptation and internal integration" (p. 149), that is, groups must organize to deal with the situations in which they exist, and deal with situations that occur in a collaboration. Schein (1996) conveys the critical importance of understanding cultures as they pertain to organizational change. Occupational cultures evolve as socialization occurs during "education and training" (Schein, 2017, p. 13), for example, professional pilots are trained to an occupational licensing standard, that is, they are

trained in the “same way to the same skill set and values” (Schein, 2017, p. 14). Leadership, Schein asserts, is critical in the creation of a culture, and in cultural change. If difficulties develop, new behaviour is vital “to solve the problem, which may evolve the culture” (Schein, 2017, p. 14).

Analyzing a culture can occur at several levels, which Schein (2017) describes as meaning “the degree to which cultural phenomenon is visible” (p. 17) to the observer. Artifacts include the visible products of the group, the myths and stories told about its organizations, mission statements, organization charts, rituals and ceremonies, and language all encompass artifacts as phenomena you would see, hear and feel (Schein, 2017, p. 17). Aviation culture has many artifacts visible to the outsider, most notably the pilot’s uniform: a dark suit and crisp white shirt, tie, epaulettes, symbolizing the hierarchy of authority, the captain or first officer, and, most notably, the hat. Values, below the surface of the artifacts, are the underlying ways to “perceive, think and feel about things” (Schein, 2017, p. 22) and are confirmed through social validation, or the “shared experience of a group” (Schein, 2017, p. 20). An airline pilot’s hierarchical authority is a value: the captain is the final arbiter of safety and comfort, the first officer defers to the captain, and the flight attendants defer to both the first officer and the captain’s authority. At this level, culture offers a sense of identity to the members, telling them “who they are, how to behave toward each other, and how to feel good about themselves, making cultural change difficult for established members” (Schein, 2017, p. 23). Assumptions, inferred from known values, are the “taken-for-granted beliefs about reality and human nature” (Hatch, 1993, p. 659) and mutually reinforced in organizational culture. It is the unconscious assumptions that connect the fact of human sexuate being to male and female social identity—that is, the cultural assumptions regarding the proper roles of men and women within the private

sphere of the family and the public sphere of work—that can be problematic in seeking change in masculine cultures like that of aviation.

My study looked at the culture of the aviation industry through women pilots' standpoint, to understand if their perspective of their workplace culture and its artifacts, values, and assumptions may differ from their male peers or deviate from masculinized values of command and control typically associated with the pilot's role. Schein's model of cultural analysis served as means to analyze data to determine if the findings can inform a cultural shift to create an inclusive and just organization—that is, an aviation culture that makes equal space on the flight deck for women and feminine leadership values. Next, I present a brief discussion of literature on feminist studies of organizational culture, in order to add to an understanding of how gender is entrenched in organising processes such as hiring and promotion that “result in organizational gender divisions, such as gendered hierarchy, gender segregation of jobs and positions...and practices that separate the workplace from the rest of life along gendered lines” (Acker, 1990, p. 180).

Gender and Feminist Critiques of Organizational Culture

Reflecting on gender in aviation organizational culture is relevant when women appear as the visibly gendered “others” and men disappear as the genderless norm. Gender is intricately linked with power, and gendering of an organization implicates “a struggle over meaning, identity and difference” (Ashcraft & Mumby, 2003). Distinguishing organizational culture through the lens of gender helps to establish the role women have historically played in masculinized organizations. This section of the literature defines the concept of gender through a critical feminist lens, and then it looks at organizational culture through a feminist lens. It then looks at the literature on professional pilot role itself is gendered, moving into a discussion of

leadership in aviation, and how, as a masculinized organization, aviation leadership is itself gendered.

Defining gender roles in organizations. Situating gender in organizational studies requires contemplating what is meant by “gender.” Joan Acker (1990) defined gender as a “concept to mean more than a socially constructed binary identity and image” quoting Scott’s (1986) assertion that “...gender is a constitutive element of social relationships based on perceived differences between the sexes, and gender is a primary way of signifying relationships of power” (in Acker, 1990, p. 145)—for Acker, the focus is on how masculine values of domination themselves dominate an organization. To say that an organization is gendered means that “advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine” (Acker, 1990, p. 146). Philosopher Elizabeth Kamarck Minnich (2005) explained the sex/gender order in Western culture, where sex refers to the physicality of the body, and gender refers to the masculine/feminine stereotypes that prescribe how sex should “mean,” generates a faulty, inequitable idea of leadership that offers an incomplete knowledge about what constitutes good leadership and who can enact it. She defines how historically “a wrongly universalized particular group of males has been established as the inclusive and ideal term for humans” (Minnich, 2005, p. 119), arguing that a group of males “occupies the defining center” (Minnich, 2005, p. 110), leaving women as the Other of men who lacks specific attributes of full personhood, and some “kinds” of men (in terms of race, class, ability, age and sexual orientation) as marginalized and lesser than the default male. That is, the faulty logic of gender leads to conflating “man” with “human” and reinforces as a natural fact the notion of “man as the ‘kind’ of human that ought to be dominant” (Minnich, 2005, p. 119). This logic is problematic in a

hierarchical masculinized organization, where the managers are “almost always men; the lower-level white-collar workers were always women,” (Acker, 2006, p. 444) and these gendered outlooks prevail in the aviation industry, which is now seeking to promote women into leadership positions. My research goal was to add the women’s voices, who have successfully achieved leadership positions in aviation organizations, to understand how they have navigated this issue.

Organizational culture through a feminist lens. To recognize women’s worth and advance women’s leadership role and style in organizations, it is necessary to explore organizational culture through a feminist lens, as mainstream theories of organizational culture neglect to address issues of gender. Acker (1990) argues the traditional conception of organizations is not gender “neutral;” instead, it takes or constructs its reality from the male standpoint (p. 142). Furthermore, Acker defines inequality in organizations as “systematic disparities between participants in power and control over goals” (Acker, 2006, p. 443). In larger organizations, hierarchical positions are similar to those found in wider society, especially at the upper echelons of an organization, and “gender as socially constructed differences between men and women and the beliefs and identities that support differences and inequalities is present in all organizations” (Acker, 2006, p. 444). Conscious efforts through equal opportunity initiatives allow men to claim that inequalities no longer exist, and therefore it is up to women to compete in terms of skill and commitment to an organization (Acker, 1990, p. 181). Peggy McIntosh reminds us, “One privilege of the privileged is to not see their privilege,” adding that people in dominant groups generally see inequality as existing somewhere else, not where they are (as cited in Acker, 2006, p. 452). Acker found that women achieve equality and opportunity in organizations “only if the women function like men...put in the same long hours as their male

colleagues...put their work first, before family responsibilities” (Acker, 2006, p. 445). The image of the successful leader, she argues, shares many of the images of the successful organization “strength, aggressiveness and competitiveness” (Acker, 2006, p. 445). Women understand these cultures as masculinized, creating methods of coping, yet feeling like they are outsiders who do not belong (Acker, 2006, p. 446), while striving to fit into an image that has culturally been occupied by men and to behave in a manner socially expected of men. My research objective was to understand how women have successfully adapted into this masculinized culture by understanding how perseverance guided their success in a culture of work that is not made for female embodiment, particularly on the flight deck.

Gendered attributes embodied in the professional pilot. Gender roles are critical in the embodiment and value of the professional pilot, as the workplace is “one of the most important sites for the production and reproduction of masculinity” (Wasserman, Dayan, Ben- Ari, 2018, p. 229). Feminist organizational theory adds to our understanding of the give and take of masculine/feminine recognition in “organizational experiences of subordination and inferiority” (Harding, Ford, & Fotaki, 2012, p. 58), arguing that women should embrace cultural diversity and “reject the negative identity of ‘being woman’” (Harding et al., 2012, p. 58). Moreover, feminist psychoanalyst Jessica Benjamin argues that “men and women alike yearn for both sides” (as cited in Harding et al., 2012, p. 58) of the masculine/feminine binaries, where dominant/male /masculine is viewed as rational and superior, and submissive/female/feminine is viewed as irrational, emotional, and nurturing, and appreciating that masculine organizational norms result in a loss of subjectivity for female people and further embeds cultural beliefs and values of how to perform work.

Women have adapted in order to fit in and succeed in organizations that value masculine embodiment, and aviation is no different in this regard. While studying women in aviation organizations, Turney and Bishop (2004) examined the different learning and leadership styles of women in comparison with men, finding that “conceptions of command, leadership, effective communication, decision-making and shared authority differ in meaning between women and men” (p. 61). Ashcraft (2005) questioned how airline pilots occupy their gendered traditions, as gender “plays a pivotal role in their intense professional identification” (p. 72). Threats to pilot prestige are numerous, and organizations encourage a shift in leadership styles by embracing the “empowering manager” as a role for airline captains who historically have embraced a command and control leadership style, and who see collaborative leadership as a threat of feminization and increasingly as a loss of control.

Eagly and Karau (2002) argued that “gender roles are consensual beliefs about the attributes of men and women” (p. 574), describing socially constructed qualities as desirable for each sex. According to social role theory, gender stereotypes develop through observations of people in sex-typical social roles, that is, men in the role of breadwinner, and women in the role of homemaker. Women are regarded as having communal characteristics around the welfare of others, such as “affectionate, helpful, kind, sympathetic, interpersonally sensitive, nurturant and gentle” (Eagly & Karau, 2002, p. 574), while men are regarded as having agentic characteristics such as “assertive, controlling and confident tendency – for example, aggressive ambitious dominant, forceful, independent, self-sufficient, self-confident and prone to act as a leader” (Eagly & Karau, 2002, p. 574). The result is that women, in comparison to men, are perceived as less promising as “potential leaders and evaluated less favorably in leadership positions” (Turney

& Bishop, 2004, p. 64). My research questioned how women challenged assumptions of masculinity in the industry and how they achieved and enacted their leadership values.

Leadership in aviation organizations. Achieving leadership positions is more difficult and considered inappropriate for women. Schein & Schein (2018) define culture and leadership as “two sides of the same coin” adding to the understanding that, in a masculinized organization, leadership is constructed of qualities of “individualism, assertiveness and dominance” (Turney & Bishop, 2004, p. 63). The purpose of my research was to hear the stories of women who have achieved leadership positions and to identify the characteristics they value in themselves as leaders.

It is particularly in male-dominated professions that women’s leadership is fraught with double standards. For example, Nash and Moore (2018) studied the leadership experiences of women in science, technology, engineering, mathematics, and medicine (STEMM), where women are under-represented in leadership positions, arguing that “implicit biases and discrimination, gender stereotyping, caring obligations, lack of role models and masculinist management cultures are barriers to women’s leadership” (p. 1). Their research describes the experiences of twenty-five women in the masculinist culture as “cultural sexism” where organizations value “stereotypically male traits, such as assertiveness and overconfidence” such that competence in STEMM is associated with masculinity (Nash & Moore, 2018, p. 6). This is consistent with Acker’s (1990) assertion that in gendered organizations “meaning and identity are patterned through and in terms of distinction between male and female, masculine and feminine” (p. 146), and gendering occurs through systems where “men are almost always in the highest division of organizational power” (Acker, 1990, p. 146). Women encounter double standards in terms of what they are expected to achieve, that is, men remain dominant in

leadership roles, and women are associated with roles and occupations “deemed more appropriate to what are viewed as feminine characteristics and qualities” (Stead & Elliot, 2009, p. 106); furthermore, as outsiders, women lack the social network that privileges men. Women’s accounts of how they have successfully thrived in a masculinized workplace culture, and analysis of how they imagine a culture that values female perspectives and feminized work, can add to the understanding of how women are suitable to lead.

Challenging masculinized leadership. There is resistance from some men as increasingly women have joined the military and the airlines as pilots in leadership roles. Understanding the identity of the airline pilot as also under threat by automation, deregulation and a change in public perception, Karen Ashcraft, a scholar specializing in gendered organizational and professional identities, views the emasculation of the airline pilot through the “lens of resistance” to grasp how professional men might be threatened by disruptions to gender identity (Ashcraft, 2005 p. 74). Asserting that, embodied as a “white, masculine, commanding officer” and “historically embraced as an elite category of male in western culture,” the airline pilot is increasingly under siege. This image of the commanding officer is particularly challenged by a shift in “cockpit philosophy, training and practice, known as crew resource management (CRM)” (Ashcraft, 2005, p. 77) which, while maintaining the captain’s authority, “undermines the image of absolute power” (Ashcraft. 2005, p. 78). Crew resource management confronts the hierarchical leadership on the flight deck, shifting the concept of the ultimate authority for the safety of the operation from the captain, to a responsibility for safety of the operation shared by all crew members.

Crew resource management also presents a predicament for the pilot as it creates conflict between collaborative teamwork and individual decision-making. Wasserman, Dayan, and Ben-

Ari (2018) describe a new form of masculinity, enacted discursively by a dominant group of pilots, as “upgraded” (p. 228). This hybrid masculinity appropriates so called “soft” characteristics of debriefing, that is, reflecting on their performance after completing a mission to improve upon it, reinforces the privileged status of the Israeli air force pilots: “In this new version of masculinity, soft elements are used as power resources, and it thus is perceived by the pilots as better than other masculinities within and outside the military” (Wasserman et al., 2018, p. 229), thereby maintaining and enhancing the dominance of the military pilots. As a model of modern masculinity, these pilots observe the stereotypical attributes of manliness by underscoring their dominance “through risk taking, aggressiveness, competitiveness” (Wasserman et al., 2018, p. 231), while symbolizing a new type of hyper-masculinity that enacts technical skills and intelligence. The authors studied how changes in organizational practices, such as developing technologies, safety consciousness, and organizational learning, can destabilize hyper-masculine behaviours and identify a “new form of masculinity” allowing them to maintain their dominance and women’s segregation. These pilots adapt to changes by espousing behaviours typically identified with femininity through “discursive distancing” (Wasserman et al., 2018, p. 247), a strategy intended to preserve the male pilots’ authority in the social hierarchy of the organization, not to create greater gender equality through inclusion of women.

Inclusivity in a profession creates a dilemma when women do take up leadership roles. For example, Ashcraft, Muhr, Rennstam, and Sullivan (2012) claim that diversity in a profession occurs when women are excluded as the “other” and rectified through their inclusion; however, they argue “the former view claims we are damned if fail to integrate Others, where the latter holds that we are damned if we do, since successful inclusion undermines occupational worth”

(p. 468). In other words, the more a profession admits women, the less status will accrue to that profession, for as Minnich (2005) argues, “historically the change of a male dominated profession into one with a majority of women, marks the point at which the power, status, and money, decrease” (p. 127). Ashcraft & Mumby (2003) argue that the Airline Pilots Association (ALPA) was able to negotiate professional status and complementary high salaries by excluding men of color and all women in their constitution, aligning the image of the airline pilot as a white heterosexual male. I surmised, therefore, that my study of women airline pilots who are part of professional labour organizations could highlight other relevant labour issues that advantage both male and female members, such as working conditions that focus on quality of life.

Women’s Experience as Professional Pilots and Leaders in Aviation Cultures

Literature about the experience of how women have endured and succeeded in aviation is scarce; however, a few studies offer a basis for my own research. My study is rooted in the desire to understand how to create a cultural shift. It is only in recent history that women have found employment as professional pilots. The aviation industry has been the exclusive domain of men; because of this, a historical look at the social construction of the airline pilot offers insight into how communication has predominantly constructed a masculine identity.

A brief history of the image of the pilot. Airlines afford a unique insight into the organization of masculinity, particularly when the concern is understanding women’s location and experience in organizations. A critical study of aviation culture by Ashcraft and Mumby (2003) detailed how the image of the professional pilot has been portrayed in popular culture as the heroic male, whose attributes are best understood through popular culture as “the right stuff,” a blend of skill and confidence, a man in charge, battling aircraft emergencies, and through his inherent skill and cunning, landing the aircraft safely, and rescuing all onboard. As commercial

air travel developed after the Second World War, airlines communicated the message “if a woman can fly it must be safe” to convince the public that air travel was a secure mode of transportation (Ashcraft & Mumby, 2003, p. 142). The airline industry blossomed, yet the identity of the ladybird threatened to demystify, and even feminize, the act of flying, some forty years before women were permitted on the flight deck. Women who sought to occupy the cockpit in the early 1930s “raised the possibility that there were few, if any, sex-differences in flight, that in the air, men and women can be equals” (Ashcraft & Mumby, 2003, p. 143). The image of the “lady-flier” as pilot, in contrast to the image the union was struggling to define, that of pilot as white-collar professional, was problematic, and a threat to pilot prestige. The pilots’ union, the Airline Pilots Association (ALPA), constructed the pilot as a white, masculine, commanding, heterosexual, paternal figure (Ashcraft & Mumby, 2003, p. 146), confirmed by a study by Neal-Smith and Cockburn (2009) who have shown that cultural sexism exists in the airline industry because of “assumptions and stereotypes” held by managers and male pilots who expect that “women should adapt to the current aviation social system’ (p. 33), a system constructed on the image of a “particular breed of white masculinity” (Ashcraft & Mumby, 2003, p. 149). Moreover, a “whites only” clause denied men of color union membership until 1942 (Ashcraft & Mumby, 2003, p. 147). In 1934, Central Airlines hired the first woman co-pilot; however, pressure “to sever the professional airline pilot from femininity” (Ashcraft and Mumby, 2003, p. 153), including threats of a strike by union membership, culminated in ALPA rejecting her application. “It would be thirty-eight years before a U.S. airline hired another woman pilot” (Ashcraft & Mumby, 2003, p. 154). Despite the presence of women and men of colour on today’s flight deck, the union membership remains predominantly white and predominantly male.

Airlines are the focus of Mills' (2006) research into masculinized aviation culture, adding to an appreciation of how gendered practices have taken root over time. The "gendered imagery" (p. 35) of the professional pilot as predominantly male, with masculine "norms and values" (Mills, 2002, p. 288) stems from a traditional military culture. Mills' (1998) research on the development of air force culture shows that Royal Air Force (RAF) pilots in World War One, were restricted to "upper and middle-class men" (p. 174), contributing to the rapid increase in the number of pilots, and purposefully excluding women. Airlines reconstructed the "camaraderie, organization, symbolism and culture" (Mills, 1998, p. 174) of the military by employing only members of the RAF, further symbolizing the pilot as heroic and brave, "the lone hero" who had engaged in, and won, aerial combat.

The historical research meshes with the study by Ashcraft & Mumby (2003) that examines branding of the airline pilot as a "romanticized profession... entangled with gender, race and class formations" (p. 132), making visible how ALPA have secured the "status of airline pilots as venerated professionals" through the creation of messaging that affect construction of gender in organizations. George E. Hopkins (1982), in *Flying the Line, the History of ALPA*, describes what a pilot is worth:

Airline pilots have created their own traditions. They see themselves as calm, mature, individuals who leave nothing to chance, but who never panic if things go wrong. An important part of this self-image is, admittedly, an almost arrogant self-confidence, a feeling that if push ever comes to shove, "I can handle it!" This cocky self-image has sometimes led to trouble, but more often it has constituted that hidden reserve which has enabled quite ordinary pilots to accomplish amazing feats in a crisis, avert disaster, and

return their shaken passengers, *somehow*, to mother earth. This attitude was born in the days of wooden wings and it still bred into airline pilots today (p. 1).

Understanding the historical context of the image of the professional pilot as defined by ALPA is necessary to understanding how women have been excluded in the social construction of the pilot, both in the culture of the pilots' union and the culture of the aviation industry. My study aimed to add the voices of professional women pilots to the research to appreciate their roles in rebranding the image of the airline pilot, understanding how the role of pilot has evolved from the heroic male to the "empowering manager who integrates input from the crew" (Ashcraft et al., 2012, p. 480).

Women's experience of aviation cultures. There are some extant studies that capture the experience of women in aviation and their interpretation of how gender inflects their work; they confirm that aviation organizational cultures are indeed gendered masculine and shed light on how female pilots are navigating and changing the aviation workplace. For instance, McCarthy, Budd and Ison (2015) conducted qualitative interviews of flight crew members based in the United Kingdom, and the four women interviewed agreed that "gender stereotypes and prejudice still exist" (p. 36), also suggesting the influence of the past legacy of male pilots was declining. Their study showed that female pilots believe they have barriers to overcome before acceptance by their male peers, including gender-related attitudes and experiences of negative comments from the passengers. Conversely, the six male pilots interviewed offered that "derogatory gender-related remarks to a woman pilot...(are) light-hearted banter" not to be taken seriously, and that women need to be thick-skinned to take a joke. Passengers' preconceptions about a woman's ability "to park, take control and multi-task" (McCarthy et al., 2015, p. 36) also result in negative comments towards women, and are further evidence of a cultural stereotype of

women as lacking in leadership qualities expected in masculine roles. However, increasing numbers of women pilots challenges those stereotypes, and adding further voices to the research through women's stories can increase awareness of these issues by sharing these stories.

Women in senior aviation roles believe they must compensate for the fact they bring perceived female "lack" to a masculine role. A study by Davey & Davidson (2002) on female pilots working in an international airline found the "experience of dealing with sexism and adapting to the masculine culture continues to influence the attitudes of female pilots, especially towards gender and equal opportunities" (p. 195). Their research found that women joined in and laughed at sexist jokes "for fear of being labelled feminist, difficult and so on" (p. 211). One female pilot feared the label feminist, because "virtually every pilot I know is ardently anti-feminist" (Davey & Davidson, 2000, p. 216). At the same time, men said that, although a male-dominated occupation, fellow women pilots were equally or more competent; however, women must prove their flying abilities "every time they flew with a new male-pilot" (Neal-Smith, 2014, p. 188). Additionally, women who report sexist behaviour to management are labelled troublemakers, while "masculine discourses value the ability to withstand aggressive behavior and overcome problems without having to resort to help" (Davey & Davidson, 2000, p. 218). The results showed that "female pilots had not changed the culture, had to conform to traditional masculine values and practices" (Davey & Davidson, 2002, p. 203). There is a need to challenge the dominant cultural discourse that portrays piloting as men's work (McCarthy et al., 2015) and my research looked at how women who have achieved leadership status have adapted to the dominant masculine culture and the persistent negative stereotypes, focusing on those pilots who have insight as to what behaviour is successful in overcoming barriers.

Many studies highlight the difficulties that exist for women in aviation, almost all them related to gender stereotypes of the heroic male pilot and the general cultural assumption that women are not fit for leadership roles. The studies find that the barriers to women in aviation include cultural barriers, gender differences in learning, leadership, and communication (Turney, 2004; Turney, Henley, Niemczyk, & McCurry, 2004; Turney & Bishop, 2004; Karp & Sitler, 2004). Analyzing the barriers to women in aviation, Neal-Smith (2014) found that women function in a profession “steeped in patriarchal systems of dominance in terms of organizational power” (p. 191). The study shows women learn differently from men, and lack of confidence is an underlying factor, increasing the cost of licensing and training for women, as increased flight time is necessary to pass the competency requirements. Increasing demand, and the elimination of exclusion from combat duty for women in the military, created opportunities for women, while sex-role stereotyping implied women are identified first as their gender, before their professional role, furthering incidents of bias, prejudice and discrimination (Vermeulen & Mitchell, 2007). Barriers are minimized with positive female role models; however, having few women means the male dominated organizational culture within the aviation industry will remain, unless airlines look at their hiring practices, “including a focus on gender and diversity...but also the gendered character of their organizations” (Neal-Smith, 2014, p. 203). Denying gender as an issue for hiring women does not preclude discrimination or exclusion from occurring; however, it can create issues when women experience sexism at work. Neoliberal arguments of workplace equality and self-determination further exacerbate “an ideological ‘double entanglement’ with gender typing of work” (Ronen, 2018, p. 2). When it is either implied or inferred that a job is best accomplished by a particular sex, inequality occurs through “gender essentialization and feminine devaluation” (Ronen, 2018, p. 5). Essentialization is a

semiotic process that relies on gender stereotypes derived from “two fundamental modalities: agency and communion” (Ronen, 2018, p. 5), occurring when it is assumed that a worker’s ability is based on whether they are a man or a woman, “disadvantaging women when they work in gender-incongruent, masculine professions” (Ronen, 2018, p. 5). Its correlate concept of feminine devaluation is an effect of the hierarchical, differential value placed on masculine or feminine work, such that feminine work is considered of less value (Ronen, 2018, p. 6). One can argue that adapting to the rules of men and accepting sexism is not equality, and despite “concerted efforts to improve the gender balance of their flight crew, women’s participation remains low” (McCarthy et al., 2015, p. 32). Recognizing that the job of flying is the same, regardless of the sex (or the gender identity) of the pilot, and that “feminine” work like communication and care is critical to the pilot’s role, my research focused on the value women bring into the flight deck, including the different qualities women exhibit as leaders, and understanding that today’s flight deck may be ripe for a concerted action of resistance leading to cultural change. My goal was to shine a positive light on those women pilots who, despite a persistence of barriers, have endured and overcome cultural stereotypes.

Women’s experience as leaders. The research into women’s leadership experience implicitly leads us to understand leadership as a male domain; however, increasingly women are occupying leadership roles, and it is important to consider how the post heroic model positions leadership as a shared and social practice (Stead & Elliot, 2009, p. 16). As increasing numbers of women join organizations as professional pilots, differences of leadership and learning styles as they apply to the aviation culture can be better understood by appreciating women’s experiences and understanding how women construct their leadership roles in a masculinized organization.

Communication is central to organizations as they are constantly constructing culture (Deetz, 1982). Ashcraft and Mumby's (2003) study of gendered organizing focuses on airline pilots through a communicative lens, framing the "social construction of 'airline pilot' as an elite, romanticized professional identity" and centering human communications as the basic, constitutive activity of organizing. They suggest that discourse and communication create "lasting institutional and economic arrangements" and specifically, historically gendered organizational formations of culture. Women tend to approach communication as a process of creating rapport "emphasizing equality, responsiveness and support, emotion and personal disclosure, and a tentative or provisional tone" (p. 4), while men emphasize "outcomes—like dominance, persuasion or display of knowledge—and tend toward more abstract, rational, strategic and assertive tones" (Ashcraft & Mumby, p. 4). These differences in communication styles, seen as barriers to women in leadership roles, further add to the double-bind women face with conflicting beliefs of femininity and professional leadership, insofar as women who "emulate masculine culture well risk negative evaluation, since similar behavior look suspect in the light of gender prescriptions" (Ashcraft & Mumby, 2003, p. 7). My study sought to learn whether and how senior female pilots have conducted their own strategic identity work in their gendered workplace and how a more expansive image of the pilot could be imagined and communicated as a result.

One barrier to women in aviation is the different attributes women bring to their roles as leaders on the flight deck. The aim of my research was to explore how women negotiate and navigate those barriers; that is, how they become leaders, and how they enact leadership on the flight deck. Stead and Elliot (2009) discuss how leadership theory is "dominated by men and draws largely on the white, western male experience as it occurs within mainly western

hierarchical organizations” (Stead & Elliot, 2009, p. 5), defining hierarchical as “organizations that have clear division of labour across functions and according to levels of seniority” (Stead & Elliot, 2009, p. 6). Furthermore, they argue that excluding women’s experience of leadership advances “white, middle class, western male values as the norm” (Stead & Elliot, 2009, p. 6). According to Eagly & Karau (2002), women leaders are viewed as less effective when they are in leadership roles that are defined as more masculine: “In general, prejudice toward female leaders follows from the incongruity that many people perceive between the characteristics of women and the requirements of leader roles” (p. 574). Recognizing that “people have dissimilar beliefs about leaders and women and similar beliefs about leaders and men” (Eagly & Karau, 2002, p. 574) provides an understanding of how difficult it is for women to achieve success in leadership roles. This male-centric image of leadership is particularly salient when a masculinized occupation values attributes that are normally ascribed to men, which include those agentic characteristics such as “assertive, controlling and confident” (Eagly & Karau, 2002, p. 574), negating the communal attributes ascribed to women, “primarily a concern for the welfare of other people” (Eagly & Karau, 2002, p. 574). The literature shows women leaders in organizations bring “improved performance and profitability, infuse leadership teams with innovation and fresh perspective, and inspire vision among employees” (Bierema, 2016, p. 120); yet, women leaders are considered out of place, “they face discrimination, pay discrepancies, and occupational segregation” (Bierema, 2016, p. 122). Furthermore, if the leadership experiences do not fit the masculine model, the voices are silenced (Bierema, 2016, p. 125). Drawing from these differences in leadership style will provide an opportunity for organizations to successfully accommodate different leadership styles on the flight deck.

Schein (2017) has posited that “leadership is the key to learning” (p. 14), and in order to create a cultural shift, leaders can use their influence to propose a change in behaviour to “solve the problem, which may evolve the culture” (Schein, 2017, p. 14). Safety is a prevailing issue and communication is critical in hierarchical organizations such as the military and airlines. Situations where learning is not encouraged, where subordinates do not pass along information to the leadership, or information is ignored or overridden, can result in fatal accidents. Leadership must create a climate in which crew members feel safe to bring up relevant issues that need to be addressed. According to Schein (2013), the answer is to “become better at asking and do less telling in a culture that overvalues telling” (p. 3). Thus, Schein recommends leadership styles based on relationships *between* hierarchies as preferable to the impersonal and transactional rules and roles that continue to dominate organizational practice (Schein & Schein, 2018, p. 1). Furthermore, we can see how culture needs to evolve when we “understand our culture and see how leadership as a relational activity is both shaped by and shapes culture” (Schein & Schein, 2018). It is the leader’s behaviour that facilitates the change. My research compared the values and beliefs as identified by the women pilots, classifying discrepancies and probing deeper assumptions about leadership styles that might explain perceived routine behaviour.

Summary

A review of the literature showed gaps in the research on women who have longevity in the airline industry. By focusing on women’s experience to appreciate the perspective of successful women in aviation, and how they have thrived in a masculinized culture, my research will center on how their knowledge can inform organizations who aim to create an inclusive and diverse flight operations department that welcomes differential embodiment of the pilot and enactments of leadership. Women have worked as professional pilots for more than forty years;

making sense of their experiences can inform organizations on the cultural shift required to advance women's roles in aviation and imagine the professional pilot as inclusive and equitable, regardless of gender.

Methods

Research Design

The goal of the research was to understand how women's experience as professional pilots can inform transformation of the image of the professional pilot, which has historically been socially constructed as masculinized, and to shift a masculinized organizational culture that aims to increase women's participation as pilots. Interpretive positions offer insight into the experience and knowledge of underrepresented groups. According to the Centre for Aviation (CAPA), women are less than six percent of the professional pilot population. As such, the study was situated within the interpretive/constructivist paradigm, the aim of which was to produce understanding of participants' view of the world in which they live and work, and that meaning is formed through interaction with others and centers on the standpoints of where we live, "in order to understand the historical and cultural settings of the participants" (Cresswell, 2007, p. 21). Thomas (2003) said that an interpretivist paradigm "portrays a world which reality is socially constructed, complex and ever-changing..." (as cited in Thanh, & Thanh, 2015, p. 25) and social constructionism depends upon the participant's location; therefore, the focus in this study was on interviewing female pilots who have experienced a career in the aviation industry.

My research was designed as a narrative inquiry with an appreciative approach. Narrative inquiry produces stories and descriptions by "involving the participants in the construction of the story" (Reed, 2007, p. 62). The purpose of this narrative inquiry research was to take the stories

generated by a community of experienced women pilots, drawing on the information in those stories, to answer questions that imagine the ways to shift a culture. Connelly and Clandinin (1990) further clarify that as narrative researchers inquire into the story of the participants' lives, they "describe such lives, collect and tell stories, and write narratives of such experience (p.2). Narrative inquiry does not objectively reflect reality, instead, it draws out descriptive accounts from participants, recognizing the importance of stories as the means through which people make sense and understand their experience (Schall, Opisna, Goodsoe & Dodge, 2004; Green, 2013). Stories can be categorized into themes and, through these themes, sense-making emerges (Czarniawska, 2007). In other words, knowledge occurs through meaning making strategies, resulting in a "deeper understanding that arises with the participant's perspective" (Green, 2013, p. 63). A focus into female pilot's stories through an appreciative lens allowed me to provoke accounts of the participants' experience with their work, and the significance of their experience, with the aim of this research eventually leading to the creation of community in the context of exchanging stories, where the collective knowledge is produced, maintained, and distributed.

As noted, this study used an appreciative inquiry lens, and organizational change through an appreciative lens requires the discovery of core values through narratives told by members of the organization (Gergen & Gergen, 2006). Appreciative inquiry builds upon the constructivist principle by paying attention to the way people tell stories "about the past, present, and future and the way these stories have the power to shape and reflect the way people think and act" (Reed, 2007, p. 26), with the goal to expanding empathy towards the position of others (Gergen & Gergen, 2006). Bushe (1995) describes the goal of appreciative inquiry as "a method of changing social systems, is an attempt to generate a collective image of a new and better future by exploring the best of what is and has been" (p. 2). An appreciative lens assumes every

question is positive, the answers draw descriptions of experiences working for an organization over time, linking appreciative inquiry with a narrative method through plot, that is, how the participants have “triumphed over adversity” (Reed, 2007, p. 62) and causality, or the relationships with other people and the organization that have driven the plot, shaping the way for imagining and explaining “the way things are and the way they might be” (Reed, 2007, p. 63). My research objective was to examine the culture of the aviation industry, with the aim of shifting culture to “what it could be” by looking at aviation through the lens of the female pilots who fly the airplanes.

Appreciative inquiry, as an approach to understanding the social world in organizations (Reed, 2007, p. 2) and as a lens for research, is “found to be an effective approach to changing organizational culture” (Trajkovski, Schmied, Vickers, & Jackson, 2012, p. 1232). Cooperrider and Srivastva (1987) explain their logic for imagining change through an appreciative inquiry:

Accepting for a moment the argument of the social constructionists that social reality, at any given point, is a product of broad social agreement (shared meanings), and further granting a linkage between the conceptual schemes of a culture and its other patterns of action, we must seriously consider the idea that alterations in conceptual practices, in ways of symbolizing the world, hold tremendous potential for guiding changes in the social order. (p. 7)

Appreciative inquiry is a summons to “generate new perspective” (Cooperrider & Srivatsa, 1987, p. 23) on organizational change, and through dialogue and conversations, “break the hammerlock of the status quo and open up new alternatives for organizing” (Czarniawska, 2012, p. 3) conjuring ideas “and explanations for the way things are and the way they might be” (Reed, 2007, p. 63). Appreciative inquiry (AI) seeks the “best in people, their organizations, and the world

around them” (Ludema & Fry, 2011, p. 5) through the “4D Model”—discovery of the best of memories and moments of the organization, dreaming to imagine what could be (that is, building upon those moments to envision what the organization could be), designing what should be envisioned for the organization, and destiny, how to sustain the future through innovation and action (Ludema et al, 2001; Ludema & Fry, 2011; Michael, 2005).

As a pilot myself, with forty years of experience navigating the aviation industry, I have employed my capacity as a researcher to promote flying as a career choice for women and to strengthen the culture in the aviation industry, to make it a more appealing career for women and minorities. I have imagined a culture that includes feminine leadership styles, expanding a pilot’s value to a diverse organization. My passion for my career as a pilot has informed my desire to shift the ideal of the pilot as purely a masculinized role for the default male worker, imagining an organization where women positively influence the culture, creating opportunity for other women. I have imagined that women, after successfully navigating cultural barriers and carving out leadership roles in an aviation organization, through their shared stories and understand, can lead to organizational change. Just as Michael (2005) used appreciative inquiry as an interview tool for her research of NGO’s, my research has focused on what these female aviation industry leaders see as the best of their work through their experiences over time (Reed, 2007, p. 62). Importantly, in using AI as an approach to framing questions, I have not overlooked challenging experiences, instead, my research looked for a “nuanced understanding of both the positive and the negative in an experience” (Michael, 2005, p. 223).

The Participants

My study focused on female pilots, inviting participants to share their stories and add their voices to the research through appreciative interviewing. My own position as an airline

pilot allowed me to adopt a purposive sampling strategy to enlist my peers as participants; however, snowball sampling resulted in additional interviews. Purposive sampling means participants are selected for the study because they can “inform an understanding of the research problem and central phenomenon in the study” (Creswell, 2007, p. 125), while snowball sampling involves participants who believe other people would provide “information rich” cases (Creswell, 2007, p. 127): “All of the people will be selected because they have stories to tell about their lived experiences” (Creswell, 2007, p. 128). In keeping with the social constructionist spirit of appreciative inquiry, I imagined a collaborative approach to bringing female pilots into the study because inclusivity is crucial for a broad range of insights (Reed, 2007, p. 31).

My goal was to recruit six to ten participants, focusing on women who have chosen a career as a pilot in the industry over for a protracted time, having had a chance to reflect on their experience. The nine participants who I eventually recruited bring experience in the aviation industry that ranges from forty to twenty years on the flight deck—three are captains on wide body aircraft, one is a base chief pilot and captain on a narrow body aircraft, and the others are first officers. At the time of data collection, the participants worked at three different organizations: an international airline, a domestic airline, and an aerial fire-suppression organization that operates around the world—each with a distinct culture. The participants were given pseudonyms to conceal their identity.

I personally contacted each of the participants, and they were provided with an introduction to my research purpose, including a clear explanation of my role and responsibilities in the research, as well as an explanation of why their stories are so central to achieving my purpose. My integrity as a professional and my rapport with my fellow women pilots allowed me

an essential role as a researcher (Devers & Frankel, 2000, p. 265). I completed the face-to-face interviews in a secure setting, between July and November 2019.

Data and Data Collection

Generating of the data occurred through semi-structured interviews, using open-ended questions, and framing the questions through an appreciative lens. For reasons of time and scope, my research deviated from a full appreciative inquiry process, looking only at the *discovery* phase, the best of what is, and the *dream* phase, developing affirming images of what the organization could be in the future (Michael, 2005). Appreciative inquiry focuses on “how people think instead of on what they do” (Boxer, 2005, p. 130) and Cooperrider (2003) has recommended crafting AI questions with two parts: the first part of the question should conjure a personal experience and narrative that aids in identifying and drawing on “their best learning from the past” (as cited in Reed, 2007, p. 36) and the second part should permit that interviewer to “go beyond the past to envision the best possibilities of the future” (as cited in Reed, 2007, p. 36). Discovering involves asking positive questions, seeking what works, what inspires, when people have felt empowered (Boxer, 2006, p. 131). Crafting thoughtful questions evokes storytelling, allowing the researcher to obtain rich narratives about positive experiences. (Norum, 2008, p. 22). Bushe (1995) concluded that the most important part of interviewing is “getting to stories that people have about the topic” (p. 4).

For this study, the questions I brought to my appreciative interviews focused on the hope of achieving a shift in culture and creating images of women as leaders in aviation organizations. The interviews were grounded in a prepared a set of appreciative interview questions, which included:

1. Tell me about how you turned your passion for flying airplanes into your career?

2. Tell me about a “peak experience” or high point in your flying career?
3. Without being humble, tell me what you value most about yourself and how that contributes positively into your role as a professional pilot?
4. Tell me how your values influence your approach to leadership?
5. Tell me about the culture of your organization that most positively affects you?
6. Tell me what is your ideal image of the professional pilot?
7. Tell me what your hope is for the future of women in the aviation industry?

Framing these questions in an appreciative manner encouraged the participants to challenge assumptions about the way things happened, understanding that we socially construct cultural experiences through interactions and communications, that is, “that people can share their world through the way they talk and think about it” (Reed, 2007, p. 56). Critical perspectives “focuses on examining established ideas in a way that is independent of the power structures that perpetuate them” (Reed, 2007, p. 57), and asking questions through an appreciative lens encouraged participants to think about the “taken-for-granted images of organizations and activities that participants may have” (Reed, 2007, p. 57), and focus instead on their positive achievements. Accordingly, my questions were intended to focus on how women’s focus and drive led them to successful careers in the aviation industry, how those values shaped their leadership style, how a masculinized organizational culture affected them, and how they imagine the future for women in the aviation industry.

The interviews were audio recorded and then manually transcribed. The data was stored on a password-protected computer, and paper transcripts were locked in a filing cabinet.

Data Analysis

The unit of analysis of this narrative inquiry was the participant's story. Making sense of interviews and recognizing themes requires reflection on the stories told through appreciative interviewing. The focus of the analysis constructed new understanding by looking at what these female pilots have done in the past, or what they have achieved, and what they imagine for the future (Boxer, 2005; p. 135; Reed, 2007, p. 139). As an appreciative narrative inquiry, I was eliciting stories of pilots' career experiences over time, thereby "painting a picture" of the way participants perceived the scenarios, events, and consequences that shaped the way participants see the future, as well as the past, connecting these plots to create a description of "the way things are and the way they might be" (Reed, 2007, p. 62). When producing the findings, I focused on women's stories of how they joined a male-biased, masculinized organizational culture, how their leadership style emerged in a masculinized culture, and what changes they imagine for aviation organization of the future.

To code the data, I immersed myself in the transcripts, repeatedly listening to the recorded interviews for nuanced meaning. Saven-Baden (2004) discusses the value of moving beyond analysis towards interpretation "framing information so that elements of meaning, rather than simply content, come to the fore" (as cited in Reed, 2007, p. 137). The process of reflection offered me the ability to create meaning through analysis. Thematic analysis (TA) was useful in guiding the first phase, by identifying patterns "within and across data in relationship to participants' lived experience, view and perspectives, and behaviors and practices" (Clarke & Braun, 2017, p. 297). Data analysis can be messy, and collating emergent themes arrived at through inductive and deductive analysis encapsulated both specific and underlying meaning. (Clarke & Braun, 2017, p. 298): "Through focusing on meaning across a data set, TA allows the

research to see and make sense of collective shared meanings and experiences” (Braun & Clarke, 2012, p. 57).

To guide the data analysis, I used two theoretical lenses—Schein’s cultural analysis as a structure for thinking about culture as it pertained to the data, and feminist organizational theory to support a coherent understanding of the culture. I transcribed the data and formatted the transcription into a document using an iterative and reflexive process. During my initial round of analysis, I loosely coded values, assumptions, and artifacts in the right margins of the transcribed texts. Feminist organizational theory guided my coding of masculinized and feminized styles of leadership, and the degree to which they are aligned with their workplace culture was emphasized as I listened to the women’s voices and simultaneously added notes and reflected on the interviews. Subsequent rounds of reading and analysis led to further reflection on the past, present and future of aviation organizational culture in light of the research question and central concepts from the literature. An appreciative stance also influenced data analysis, in that appreciative inquiry has “more to do with understanding the ways in which people think about their lives” (Reed, 2007, p. 144), and an appreciative lens involves thinking about how we construct our lives, and a narrative “both describes and explains their experiences” (Reed, 2007, p. 145). In other words, exploring and synthesizing women’s stories helped to understand events and their consequences for women’s successes as pilots, including women’s experiences of gender and leadership, and how these events have shaped or inhibited opportunity for women in the aviation industry.

Ethical Considerations

The focus of my qualitative research was the experience of the participants who agree to an interview; therefore, an awareness of ethical considerations was crucial. The kind of problems

considered: “the researcher/participant relationship, the researcher’s subjective interpretations of data, and the design itself” (Orb, Eisenhauer, & Wynaden, 2000, p. 94). I requested and was granted ethical approval for the research. I honored the ethical dimensions of consent and confidentiality when undertaking the research by approaching the participants personally and requesting their involvement, ensuring discretion. Ensuring the participants knew about the nature and purpose of my research, I continued only when the participants granted informed consent and understood they could leave the study during any stage of the research process. Confidentiality refers to the belief that details and identity of participants and interviews are private. The aviation community is small, and even more so for women; therefore, vigilance must occur to ensure anonymity. Coding the data without participant identification, except as code, ensured confidentiality. It is my intention to distribute a copy of my findings with the participants.

Findings

Three key themes emerged from the analysis of the stories constructed from the participant's interview data—women as outsiders, women adapting and leading in masculinized organizations, and women imagining an inclusive aviation organization in the future, and results of the deductive analysis using Schein's (2017) cultural theory (artifacts, values, assumptions) are woven through these three themes. The women's stories revealed through the interview process are presented using pseudonyms in naming the participants. Each small piece of the participant's stories illustrates the emergence of women into the aviation industry. Included in the findings are stories of segregation, participation, adaptation, and accomplishment. The presentation of their stories is structured to show their experiences over time. These women began their aviation careers as pioneers, demonstrating perseverance in the face of opposition. Once recognized, these pilots shaped a subculture, emerging and developing a leadership style through their values. As an appreciative narrative inquiry, the stories paint a picture of the scenarios, events, and consequences that shaped the way participants see the future, as well as the past. Following this presentation of findings, the discussion section provides analysis of the experiences, weaving cultural analysis through the discussion and relating the findings to the literature.

Women as Outsiders on the Flight Deck

Women starting out in the aviation industry soon observed themselves as outsiders; doors open to male pilots were closed because they were women, nonetheless, they persevered. The aviation industry has masculinized culture embedded through its military foundations, where a basic assumption was that only men could be pilots. Values of heroism and individual authority emerged as military pilots joined aviation organizations. Compounding this masculinized culture

was the airline pilots' union, which constructed the image of the pilot as masculinized and excluded women from membership. The data highlights the experiences of these women, both positive and negative, in a masculinized organizational culture, creating a shared knowledge that can inform change toward an inclusive organizational culture, an outcome that is discussed in greater detail in the discussion section

Opening the cockpit door. These stories can be viewed through the lens of cultural assumptions, that is, the assumption of the normalcy of the gendered segregation of flight instructors, who fly smaller aircraft closer to home, and the assumption that flying larger aircraft greater distances was of greater value as women learned how to gain the necessary experience to further their careers in the industry. Each woman spoke of their unique entry into the aviation industry, where there were few visible role models.

Ellie grew up believing all women pilots were lesbians, “because that’s how we ever spoke about women pilots.” Her father, a pilot for a major airline, “never spoke favourably about women pilots, and I had never met a woman pilot. As a young girl, you think, well I’m not a lesbian, I can’t be a pilot. And I remember Dad saying, ‘you better not be one of those bad girl pilots who gets through cause they’re a woman, you know... they always get extra.’” Ellie started her flight training in 1998, graduating from aviation college in June 2001. Presently, she is a senior flight operations manager for a large North American airline.

Diana’s father was an airline pilot, but she never connected flying as “something she could do, despite so many of the aspects of aviation that are well suited to my personality.” Her father built a rocking float plane for her brother; however, it was Diana who pursued a career in aviation. She loved the challenge, “in the beginning, I never doubted myself.” It was her first days in aviation college, when, along with four female cohorts, she was pulled aside by an

instructor who reinforced their roles as outsiders, telling them, “you’re going to be expected to do better than your male counterparts.” Diana is now a first officer on a wide body aircraft with more than twenty years of experience in the aviation industry.

A guidance counsellor told Katie, age 15, “You can’t be a pilot. You can be an aerospace engineer, you can be an aircraft maintenance engineer, but you can’t be a pilot.” Katie pursued the military path; however, she was told she could join in another role, just not as a pilot, that path to the airline sector was shut down to women. General aviation was the only other path, and the local flying club was happy to teach her. She said, “I didn’t even have a driver’s license, from the second I got airborne; I was totally hooked on flying. And then, you don’t see any women, and I thought, everybody’s right, I’m not allowed to do this.” Katie found her initial ground school was mostly “all these old engineering types who...although they didn’t have any more experience than me, they certainly would pretend that they did. You know, they had all the bravado...” Katie saw one woman, who, she was told, “flies for Wardair. She was my little beacon of light. I thought if she can do it, I can do it, and I just kept marching along,” and only later discovering her beacon was a flight attendant. Eventually, Katie found the Ninety-nines, an organization founded by Amelia Earhart that provides networking and mentoring for female pilots. Katie is presently a wide body captain with a major airline, “the thirteenth” female pilot to be hired by the airline and has forty years of experience in the aviation industry.

Katie knew that to reach her goal of becoming an airline pilot she needed to gain valuable experience on larger aircraft—not just hours as a flight instructor. When the opportunity came to move in the organization to the charter department, an opportunity available to her male peers, she was told she would be overlooked because, “her husband had a good job,” and the other pilot had a greater need for the income because he was “the primary breadwinner.” Katie further

describes feeling that her “bad attitude,” her behaviour towards the perceived injustice, was going to be the excuse her boss needed to not give her the promotion. Katie won a scholarship and was able to channel it for training on the twin-engine aircraft, explaining that “they very reluctantly trained me at the same time as the other two guys” adding, “the training captain tried to keep me back, but the other guys went to bat for me, and I will say, a lot of times guys were the ones supporting me....this was the springboard for me” adding, “I didn’t know this, but they paid me less than the two guys I was there with.” When she left the organization to join the airline sector, Katie said “they replaced me with another female pilot. So that felt good, I thought things were changing a bit.”

Annie’s father was an air traffic controller who owned his own airplane: “At home I grew up with airplanes, snowmobiles and motorcycles, we were very mechanically inclined. I have two older brothers, my father tried to teach both my brothers to fly. He did not try with me. Flying was going to be in my life, but I didn’t know that I was going to be doing it for a living.” Annie started college in 1980, along with six women in a class of one hundred pilots. She recalled that “six of us went in, and the guys said, ‘Oh great, that means I’m not going to lose six of my friends’ because they figured the women are going to wash out.” Nineteen of Annie’s school mates went into the military to train as pilots, but the military was not an option for Annie, whose first job was flight instructing at the college. However, she didn’t want to stay instructing, she wanted to fly “up north” as a bush pilot, to gain experience, because “you can’t teach what you don’t know.” Despite one organization’s insistence “they would never hire a woman,” she was hired on a trial basis. Her experience as an instructor paid off as she taught aircraft systems to the other pilots, finding herself an accepted member in a tight-knit community: “I was a team player, the guys really looked after me, we were like a band of

brothers.” When the time came to upgrade, she was told, “there will never be a woman captain here.” Instead, the manager cut her salary. She quit. Annie is now a wide-body captain for a major airline, with forty years of experience in the industry.

Marsha’s first job was with as an instructor with a flying school in Toronto. “I had a commercial licence and I was just finishing off my instructor’s rating. The owner told me, ‘you’re a girl, you have to be one hundred and ten percent.’ And then he hired me. I took it very seriously, because no girls I knew did that. I waitressed at night and instructed during the day.” Marsha is a wide body captain with a major airline, with more than forty years of experience in the aviation industry.

Arlene earned a scholarship through the air cadet programme for a private pilot license. Graduating from aviation college in 1988, her first job was instructing at a school which also had larger multi-engine aircraft, allowing her to gain hours and valuable experience. Arlene has more than thirty years of experience as a pilot and is currently a wide body first officer with an international airline.

In these women’s stories we can discern the basic assumptions emerging from the beliefs, values, and norms as they relate to the idea that women are outsiders on the flight deck. As new members of a culture, these women learned the assumptions of their male peers: women don’t fly, and if they do, they don’t fly large airplanes, and if they do, they don’t fly as captains. These assumptions were embedded in the culture as it emerged from the military where the artifacts—the images, myths, rituals, and ceremonies were all masculinized, all derived from a male-centric experience of flying. These women, these pioneers, were challenging that culture and opening the doors for others to step through.

A seat on the flight deck. Flight hours and written exams are required for career advancement. Some flying experience is considered of greater value than others, and an espoused value is that multi-engine, multi-crew experience is necessary for advancement in the industry. Six of the nine pilots interviewed found their first job as flight instructors, a more traditional path for women entering the industry, while the others gained experience as “bush pilots” flying in the north, a role that is imagined as requiring greater physical strength and mechanical competency.

Carly’s experience obtaining her first job is unique. A registered nurse who also had a commercial pilot license, initially she was hired in an air ambulance operation as a nurse on the medevac flights to northern Manitoba: “I got my start in February 2001, I had a skill that someone needed, which wasn’t flying. I had driven to Thompson -- I was one of the maybe hundreds of pilots the chief pilot had seen that week. I got on the list of “wanna be” pilots, and it seemed fair. We would pick up critically ill patients and transport them, by air, to the higher level of medical care that they needed. There was one nurse and two pilots on an air ambulance, except for on occasion when we could go into a small runway, and they still needed two pilots to be a medevac, and they didn’t have the room for a nurse, I was both. And then I got my chance to make it or break it as a pilot.” Carly spent two years in northern Manitoba, traversing the roles of air ambulance nurse and air ambulance pilot. Carly is a first officer with a national airline, with almost twenty years of experience as a pilot.

Sheila’s first job was flying in northern Saskatchewan, living in a small northern community: “It was a life changing experience. Only one hundred and forty-eight people lived there. Twelve miles down the road, twelve hundred people lived on the Black Lake reserve. It was hard, but probably the most rewarding in terms of really gaining the confidence I needed

because I did all my flying “single pilot.” Following power lines at fifty feet because of bad weather -- back then you had ADFs that never pointed anywhere until ten miles out, my GPS was the line on my map. I thought I was the only one that was getting lost, taking the wrong turn, but you never talked about it, I never heard the guys at the crew house talk about the scary stuff.”

Sheila is presently the lone female pilot working for an aerial fire suppression company, where she has worked for the past twenty-one years. Sheila has thirty years of experience as a pilot in the aviation industry.

Sally spent five years after graduation from aviation college (in 2001) looking for her first flying position. Like many pilots, she worked different jobs to get her foot in the door. Her first flying job was with a smaller airline out of northern British Columbia, where she stayed for another five years, gaining experience as a first officer until she qualified as a captain. Sally is a first officer with a major airline, with almost twenty years of experience as a pilot.

These women’s stories illuminate how we can discern how women fit into the culture. Sheila describes an artifact of the aviation industry—the myths and stories of bush pilots, the values of individualism, operating “single” pilot meant she was relying on her own experience (or importantly, lack of experience) and of feeling isolated, of bravery, the assumption that she alone became lost, and of facing danger, which ultimately allowed her to gain confidence. Carly describes how organizational cultural values, such as acts of lone heroism, and the belief that showing up to present yourself in person to the chief pilot, is what is assumed to gain employment in the industry; yet, she brought knowledge and skills that added value to the organization. Sally also practiced a ritual common among pilots looking for their first job, that is, undergoing several years of aviation *related* work, before the coveted first flying job.

Summary. The first flying job is a pilot's indoctrination into the aviation industry. These women discovered a culture that assigned roles based on sexual difference, whether a pilot is a male or female, and carried the burden of representing their "kind." As Annie said, "I didn't want controversy, I didn't want to be in the spotlight...if I fail, all women fail, and I didn't want the weight of that." Other pilots I spoke to reiterated that sentiment, of women taking responsibility for other women. The dominant culture of the industry offered limited opportunity for women, as men were considered superior candidates in a profession with stark social roles, and in which female bodies are incongruous with the pilot's role. There was no building of relationships or sharing knowledge. Sheila is a crucial example of what was expected of women to obtain to progress in the culture. Despite their low ranking on the hierarchical scale, each woman professed a passion for flying which propelled them in the challenges they faced. Persistence was a value each woman demonstrated, succeeding in gaining experience while informing their knowledge of distinct leadership styles necessary to succeed in the industry.

Women Adapting and Leading in Masculinized Organizations

The challenge for women leaders is the gendered role expectations and the shared beliefs about the attributes of both men and women that we refer to as femininity or masculinity, or sexist cultural stereotypes. Confidence, considered to be a masculine leadership attribute, is a critical characteristic that women must display, despite a cultural bias that makes it difficult for women to pursue their ambitions. Women who have achieved leadership status on the flight deck are rare, and it was important that the interview process allowed them to share the characteristics they value in themselves as leaders and to explain how their leadership style both aligned with and deviated from the masculine stereotype.

Sally describes her leadership style as collaborative and adaptive, explaining how “at my first job, becoming a captain, back in the day was exciting, especially since it took me so long to actually start flying...I thought, wow, this is amazing, I’m actually a captain. It’s really empowering. We were doing really challenging bush flying.” Describing her leadership style in the flight deck, she says, “you need to be able to adapt to the strengths and weaknesses; you need perseverance and resilience. Making a difference by being part of a root system by creating connections and community, knowing that I make a difference. Perseverance, getting through the ups and downs of what it means to be in aviation, there are good times and bad times, and resilience is so important. I always try to create a fun and positive atmosphere, make it pleasant for other people. Keeping an open mind and always learning and making space for others to learn.” She describes her adaptability as coming from a military upbringing. Sally attained a master’s degree three years ago, and found that has changed her perspective: “I have a greater capacity and understanding, and the conversation on the flight deck is not just superficial conversation, it is often about more complex issues.”

Annie’s describes her initial upgrade at a major airline: “I took a transfer to Toronto to get my left seat to be Captain... I felt that other people had failed and maybe I’m not that great...maybe I’ll forget things. So, I wanted to, and I did it. It was great.” Initially, she tried to mold her leadership style to please the first officer, because as a first officer, she felt her job was to please the captain: “It was hard to establish my style of leadership, I was trying to adapt to them to try and please them...it took a long time before I didn’t give a shit, but I got there.” Making the point of ‘getting along’ with her co-workers, she says, “I like to make people think that they are making the decisions...give them a chance to come up with something, so they feel that they are part of a team. I value respect and differences, you won’t get anyone to do anything

for you if they don't feel respected, if they don't feel their opinion matters and they don't feel valued in their knowledge and abilities." She believes women have a different way of being leaders than men, "...it's seen as we are being soft and indecisive. We're not, we're listening, making sure we have all the information, and then we are the ones who make the decision." She listens to her crew's experiences, and feels that sharing their knowledge, and acknowledging their contribution is important. "I tell the guys when I fly, listen, I don't know it all and I'll make mistakes, because believe me, if they thought I could do it all you guys wouldn't be here, you guys in the back see everything. So, speak up." She believes that women are well respected in the industry, and the ones who are not are the ones you hear about. "The woman who is an authoritarian and aggressive...you can't flaunt it." She also feels that women as leaders are "constantly being evaluated." Annie described training as a wide-body captain as "self-taught...It was a tough course, there was not teaching going on there, it was very difficult."

Diana describes herself also as a "glass half full" person, stubborn, she believes in herself, and says she will not let "someone else's biases stop her from achieving what she believes she is capable of achieving." Even while wearing the pilot's uniform, she recalls enduring invisibility. She recalled one occasion, when as the first flight crew member to board the aircraft while a (male) maintenance engineer was working on aircraft, she asked for a report on the serviceability of the aircraft. Dismissing her, he responded, "yeah, I'm just waiting for the flight crew." Diana simply got into her seat on the flight deck and proceeded to do her pre-flight duties. She says, "I feel the need to prove herself on every first flight with a new captain, I feel if things got critical, my voice would not be heard. I feel I'm as competent, that my gender has nothing to do with it. I always know that you are not given the benefit of the doubt." Diana describes her leadership role from the right seat, and her understanding that being a captain does

not necessarily make one a leader: “I have the ability to guide the experience from the right seat.” Diana’s tenacity was demonstrated recently, when on approach for landing, her aircraft encountered a flock of geese, sucking them into the engine, causing the engine to shut down. After declaring an emergency, she landed the aircraft safely with one hundred and seventy people on board.

Arlene describes her greatest attribute as perseverance: “There were times I wanted to throw in the towel, maybe do something else for a living, but you can’t give up.” She describes her training experience from air cadets through aviation college, “the way they taught, the instructors at college ... they beat you down...and then the last little bit -- building you back up and making you feel like you have all this self-confidence, when really nothing had changed. I remember in air cadets...that’s what they did to us in basic training.” Describing her training at a regional airline, “It was a much more positive experience, and I felt really good about the training and everything.” When asked about her leadership style, as a first officer on a wide body aircraft, “I do the same things I have always done, show up early, check the weather. I like to be prepared. If the captain isn’t there yet, I brief the in-charge flight attendant about what I know: how long the flight is going to be, if it’s going to be bumpy, and if there are any maintenance issues with the airplane. I try to go back and say hi to the people in the back, because unless you make that effort, they are a bit nervous to come up and say hello. It’s a safety issue as well. I try to be disciplined.”

For the women, becoming an airline captain is a peak experience in their career. Marsha’s initial upgrade at a regional airline happened “when I got the captain’s seat on the Twin Otter. That was huge.” Then, while training at the major airline, she bid a captain’s position on an aircraft she had never flown before: “...they said, normally when you bid the left seat, you

should bid the right seat first...I said, 'I'll be fine' and I was." Marsha also describes herself as a "glass half full" person, matched by her leadership style—lead by example, be professional, and be brave: "Recognize that experience is what gets you through the scary situations, and that a situation that is scary the first time it happens, is subsequently not as scary." She finds it best, if she is just a "little bit cranky...you can't be everything to everyone, if you're too nice it works against you, if you're too mean it works against you." Marsha describes the benefit of working with pilots who have come from the military and whose leadership style is stereotypically "masculine": "They respect the chain of command and hierarchy. Even if they don't think you can do the job, they respect the chain of command."

As a flight operations manager, as well as a captain, Ellie offered a unique perspective of a woman leading in a masculinized culture. Developing her leadership style at an airline that was growing, by "putting up her hand, at every opportunity," first on the scheduling committee, then on the recruitment committee, Ellie increased the recruitment opportunities for female pilots at a regional airline. Ellie feels that her "soft skills" helped to create a unique organizational culture; by connecting with people, by listening, and by helping pilots engage in their job by recognizing their unique skills. As a leader, she asked questions, recognizing that engaging people helps her to create and inspire a team that helps her in her job. Ellie also said that, after leaving that growing airline, "I literally gave so much of myself, I am a gas tank that is empty." Moving into a leadership position at another airline, she says, "I've learned to set better boundaries. There was a lack of resources (at the previous organization) so whether it was paid or unpaid, which never mattered to me, I did it because I constantly wanted to strive to make the company better. And, of course the company loved me, because I was deflecting the shit that they would normally be getting, and they didn't have time to deal with." Ellie left her previous organization

after they hired an outsider to be the chief pilot, a job which she felt she was groomed for; instead, she felt the disappointment of not getting the job was “a huge slap in the face.” Her experience and leadership styles, recognized and valued by another airline, led to her job as a base chief pilot.

Carly describes herself as persistent, organized, always planning, assessing, and being prepared. She does not see herself a leader, or desire to be a leader on the flight deck; however, she said, “I don’t have this notion that I know better than somebody else, but I have an ability to think about what is happening around me, and I’m not going to participate in something crappy. At that stage I’m not overly concerned about flying a plane in a democratic way. There is a team for sure, but there is a captain on that team. But if I’m tasked with looking after you in my role as a pilot, I’m going to do that.” She matter-of-factly states she does not want to “be the guy in charge; however, if I’m put in the role of being the leader, I’m going to step up. Depending upon the urgency of the situation, I am always looking for a solution.” Carly describes the peak experience in her flying career as delivering a baby while operating as a medevac pilot. Her demonstrated capability to find a solution in an urgent situation is evident.

Sheila’s organization, an aerial fire suppression company operating globally, has a distinct culture. Flying water bombers for twenty-one years, she is currently the only female pilot. She spoke of a disturbing incident, describing how “the other female took a leave of absence after filing a harassment complaint, and we all had to go in sensitivity training. These guys treated it like a big joke. She was off for a couple of years, and then decided to come back and they washed her out. It was preplanned, she was never going to make it.” Sheila describes valuing herself as “able to get along, being prepared and creating a community.” Held back from an upgrade because she didn’t have the necessary experience in the organization, her (male)

peers have been upgraded to captain without that same qualification: “I never thought that after twenty-one years, I’d still be in the right seat.” This organization has never promoted a female pilot to the status of captain. Describing the camaraderie with the other pilots, “they’ll say, ‘we love having Sheila on our crew, you know, she makes us decent guys, we all need more women in order to make us more decent.’” The pilots are happy to have Sheila as a role model for their daughters. Sheila stays at the organization for the lifestyle and the freedom of having eight months of the year off, despite a desire to move into the left seat.

Katie described the role of being a pilot as “a track...women conform, but so do the guys,” arguing that gender difference should play no part in how women perform as pilots. As she put it, “I think that female pilots in a lot of ways are similar to male pilots...you have to have a certain set of tools that make you a good pilot, male or female.” Katie also “struggled to change from being an accommodating first officer, which a lot of people do, but putting on the hat of becoming a leader.” She describes performing as a wide-body captain with what she called her “collaborative leadership style, I tried really hard to do the directive thing and I rarely do that...if a guy sees it as a weakness, then I go directive.” Furthermore, she sees her collaborative leadership style as not valued, “they make it look like a weakness...so you bark at your first officer the whole time you are flying, like...do this, do that, give me flaps, and stop saying please and then you can go back to doing what you want to do.” She further described her role as an inclusive leader, working with the flight attendants, saying “they know I’ve got their backs...we get the job done safely and on time, so why not make it pleasant.” Katie described the experience of, “becoming a captain – A320 Captain for a couple of years. 767 Captain. 787 Captain and loving it. Loving the dream.”

Summary. In these women's stories we notice a cultural shift in values towards sharing of knowledge, of collaborative leaders and relationship building as leadership styles. Ellie describes the value of her soft skills of listening, and inspiring other pilots by asking questions. The rites of passage as the women earn their captain status, and the authority that comes with that position, demonstrated through crew resource management (CRM), are artifacts of the industry. The first officer's belief in authority, valuing that, although they are not captains, they demonstrate an ability consistent with the artifact of the three stripes on their uniform; deference to the captain's authority, and the knowledge and skill required to act as a surrogate in the captain's absence. Standard operating procedures (SOPs) are an artifact that tells the pilot how to conduct their role, so that each pilot performs the job consistently. These women's stories show feminized values of adaptability, community building, and "soft skills" emerge as assumptions that determine leadership. Indeed, their stories illuminate a subculture emerging as women realize their place in the organization.

Historical norms of piloting are gendered, in that men are privileged as the default pilot, while women's differences in the ways they learn, and lead, their values, are measured only in comparison to those dominant masculine attributes associated with flying. Some of these pilots challenge the style of leadership; however, they understand the hierarchy and their role on the flight deck and are comfortable in their knowledge and enacting that role as a situation demands, while others simply perform a "command and control" leadership style. These pilots' stories illustrate how, culturally, leadership is still seen as the domain occupied by males who in turn reliably enact stereotypically masculine leadership traits, and thus constructing the pilot's role as incongruous with female pilots. Still, these women have successfully adapted to their roles in a

masculinized culture and integrated into the masculine values, assumptions, and artifacts that characterize the environment of the flight deck.

Women Imagining an Inclusive Organization

The women's stories establish how they have created space in the aviation industry and are increasingly accepted in their roles. Looking forward and imagining the aviation industry of the twenty first century requires ongoing participation of women to create cultural change. Together, the women envisioned a future that involves including women in the pilots' union, networking with other women to examine issues relevant to women, such as motherhood, require dialogue, and taking action to create the desired cultural shift. The participants believe there was a real benefit in belonging to professional association and working under a contract that did not differentiate between men and women.

Professional pilot associations. Pilot unions are dominant sites for the creation and transformation of aviation culture. The literature provides insight as to how the gendered construction of the pilot's image as male and masculine has laid claim to the professional status and the identity of the airline pilot, helping the union negotiate wages and working conditions consistent with that identity.

Aviation organizations that have a greater number of female pilots are shifting towards a more inclusive culture for women, while other aviation organizations are less welcoming to women. Sheila's organization has a less tolerant attitude towards the female pilots who complain of harassment, showing how threatening women with failure, and ultimately the loss of career, motivates them to remain silent on issues related to gender bias. Sheila explains, "there needs to be more of us." Being the lone female in an environment where the pilots live and work on a

base for the duration of a contract, normally four months, she hesitates, “it hasn’t been positive for me, because I think I’ve been held back, because of the culture.”

Annie describes the culture at the airline as very positive. She feels that she can voice her criticism and be heard, and the company is “behind them.” She feels the benefits from the boy’s club attitude where they have historically “protected each other,” and now that protection is offered to her. Katie describes the same airline’s culture as very supportive: “It’s a captain’s airline, they support you if you’re a captain. They support you if you’re a first officer, but I feel like they’ve got my back, and I like that.” The union leadership is comprised mostly of men; however, one participant was elected to the governing body. She said, “why don’t we see more women in these leadership positions? When I ran for the local executive council (LEC) position, I had four women email me separately and say thank you for stepping up, because I can’t, and I won’t. They are not willing to do that job because they want to do other things like raise family.”

We can discern the basic assumptions emerging from the beliefs, values, and norms as they relate to the pilot’s union, a patriarchal system that reserves the positions of authority for men. Men are dominant, considered superior, and all that is desirable in a career as a pilot is associated with success: high wages, prestige, authority, control and invulnerability. The pilots’ association identifies with these core cultural values; men’s working lives are the standard for what is considered normal, flying as a career with long periods of time dedicated to the workplace, requiring a traditional wife at home to perform the mundane work required to support that career. As the culture matured, these masculinized values were embraced and the image of the pilot was constructed as a masculinized, heterosexual, paternal male figure embodied in the pilot’s uniform, a visible artifact of the industry. How we think about a pilot’s identity is demonstrated by the use of pronouns to represent the pilot’s gender in training manuals and in

contract language, where references to the masculine gender, “he” are also said to pertain to the female pilot, ensuring that women are reminded of their outsider status. The seniority list is also an artifact negotiated by the union and functions to establish hierarchy dependent upon the pilot’s length of service with an airline, determining a pilot’s work schedule and status. That is, when a captain’s position is available, and a pilot has the seniority, a pilot can bid to fly “in the left seat.” Camaraderie is a value, where belonging to the boy’s club is beneficial, offering protection to the pilots. These beliefs in the need for exclusivity and hierarchies of crew member value are indoctrinated into the image of the pilot. Adding women’s voices to the union leadership is critical to support women and generate dialogue around issues relevant to women. Nevertheless, women have supported other women with networks apart from the union and I discuss these stories next.

Women supporting women. Women who wear the pilot’s uniform become role models because of their visibility, advancing the idea that “if you see it, you can be it.” Increasing visibility of women on the flight deck is essential to creating space for women; however, adding women’s voices, through their experiences, is essential to building relationships and creating a climate where women feel valued.

Many of the participants described working with other women on the flight deck as a supportive environment. Diane describes the job when working with a female captain, noting: “...it was very collaborative, very open dialogue, we were flying into Mexico City, one of the more challenging airports we fly into, there are language barriers, and there was never any doubt in my mind as to what she needed, or what she was thinking, she talked through a lot, which I think is great. She knew her stuff.”

Annie describes her ideal image of the professional pilot: “I remember when I was a flight instructor, I was told by someone that it was great to have a woman instructor because it shows the prospective clients that it must be easy if a woman can do it. A woman is not going to take a chance because they don’t like risks, they are not daredevils, so it’s going to be safe. And they have this image of what a woman is and how it fits perfectly. So, I think the woman is the ideal pilot. They want the mission to be as smooth as possible, as enjoyable as possible, as considerate as possible, all those things. I recently had my first all-female crew, front and back on the 787, it was a non-event.”

These participants are involved in mentoring young women, either through career days, job fairs, or other organizations that promote women in aviation. Diana describes the benefit of having a “community that was very supportive” from the beginning: “I did my private licence at a school where fifty percent of the instructors were female, so they became instant mentors, so I think that, right from the beginning, mentorship is important.”

Ellie has won recognition for her work recruiting women pilots in the airline industry: “I always wanted to be one of the boys, fly below the radar, and be recognized as one of the good ones, it doesn’t matter if she is a male or a female, she’s a great pilot. When I started promoting women, I thought it went against everything we were trying to do, so I sold it as, hey we have a great job, we have a great career, so let’s inspire other women, because they are missing out. It became about creating awareness, not that we are better, or that we need more recognition. It is just to inspire people to recognize flying as an awesome option.”

The women imagined a shift where a “women pilot” could simply become a “pilot,” their professional status not labelled by the additional and mostly insignificant fact of their sex. Diane said, “I just hope to see more women, I would like the workplace to be a more accurate

representation of the general population.” Sheila said, “well, I hope “female” pilots stop being news, a pilot, is a pilot, is a pilot.” Marsha said, “I think we should just be viewed as professionals, not gender specific. No extra attention required. If you want to go be a pilot, be a pilot.” Annie said, “I hope we continue to attract women into this industry. I think women do a good job. It’s a great job...I think we have to stop dividing groups.”

Arlene describes how she imagines the future for women in aviation: “As a woman, they are assuming you don’t know what you are doing, and you feel like you have to prove yourself. So mentally you are on the edge, because you feel that they don’t have confidence in you. So, you second guess yourself, because you change your way of learning to fit into their way of teaching. It would be nice to have a level playing field, where it is assumed that, as a woman you have met the same standard...don’t worry about how a woman looks.”

Sally volunteers in a leadership position, the lone female voice on the pilot union executive, where she says, women appreciate that she spends her time with the union, because they can’t or don’t want to. Elaborating, she said “I would love to see an industry where the women don’t feel like they have to censor themselves, where they feel empowered and supported and genuinely welcome, like with their opinions and ideas. We need to see more women in leadership positions and training positions. The female perspective is so valuable, and you wouldn’t know that if the woman is not in the room. You can’t hear a voice that’s not in the room, so we need the female perspective to inform new standards and new policies that acknowledge the needs of not only women, but families. My hope for women in the future is that they feel empowered, supported and genuinely welcomed. We still need to do things better than the men that are doing the same job. Maybe the training programs aren’t tailored enough, or the mentorship isn’t there. Statistically there is still greater failure rates for female upgrades than

male upgrades. There is phenomenal potential right now to come up with innovative solutions, reconstructing the job so that it is more inviting to women. The most dangerous phrase in our language is “because we have always done it this way.”

Distinguishing culture in these women’s stories demonstrates their values. Communal characteristics of collaboration and dialogue, sharing knowledge while adhering to the standard operating procedures, and initiating the essential value espoused in aviation organizations, safety on the flight deck. The women articulated their desire to have the female perspective heard through relationships with other pilots in the union, instead of silencing women through their absence. A common aspiration was a desire to root out divergent role types by eliminating sex-role stereotyping, where a pilot is identified and regarded first by one’s sex and devalued as being too feminine, before one’s professional identity. There was a general aim among the women of challenging the cultural belief of masculinity and male embodiment as the essential characteristics of a pilot. These stories show that women create networks by inviting new members and guiding those women who are presently seated on the flight deck by building relationships.

Evolving a subculture in an organization can stimulate new ways of thinking and growth within the broader culture, and by enhancing women’s roles in the aviation industry, an organization can positively respond to the necessity of attracting new pilots to the industry, while respecting the voices of the women currently employed as pilots. One issue brought forward by the participants was the burden of coping with a career in aviation, where scheduling demands conflict with childcare demands, discussed next.

Pilots and motherhood. The identity of the pilot is constructed as male, and men have organized around the image of the masculine male, that unencumbered worker who is dedicated

to the profession with no domestic obligations. Women can mostly adapt to a masculinized culture, but there is one role that needs addressing to create an inclusive culture in the aviation industry: motherhood. This can be tricky, because in a masculinized organization, addressing the needs of sex-specific roles relating to gender equality can be thought of as a form of reverse discrimination, unless addressing the needs of a mother also addresses the needs of the father. That aside, the participants believed that flying, as an occupation, was an ideal fit for women who are also mothers.

Carly talked about the value to women of a job in aviation where you are not leaving an employer, “in a lurch.” Aviation is not like that, and she said, “you can hop out of your role as a pilot, (have a baby) then hop right back in,” arguing, “an employer is justified in not hiring a woman who would then leave to have children”; but, she argues, this does apply in the aviation industry, where another body can easily fill the role vacated by a pregnant body. Nevertheless, hopping in and out of professional and familial identities does not address the issue of childcare after birth.

Diana talked about her hopes that the union will negotiate further work-life balance in the next contract: “... there is starting to be a shift, historically the most valuable currency for pilots has been money. But to me, the most valuable currency is time.” The latest pilot contract negotiated salary top up the first three months of maternity leave. With two young children at home, she juggled the demands of life on the road with the demands of two young children: “As much as it’s hard to be away from the kids right now, I love that I’m home with them for three or four days at a time.” She described the benefit of life with a partner who is also a pilot, noting “I didn’t realize how helpful that was going to be.”

Marsha shared that it felt necessary to keep her pregnancy to herself when first hired by an airline; however, with her partner, also a pilot, they “made a conscious decision as a family to support each other,” and he ended up choosing senior first officer roles in order to enjoy more control over their schedule. Katie describes maintaining higher seniority as a first officer while also commuting and living outside Canada, supporting her family’s needs before changing status and upgrading to a junior captain’s position. The participants revealed a generational shift in how to manage motherhood and parental responsibilities. The second wave of pilots, who have younger children and infants, spoke to the need of their union to address “work-life balance,” in the contract, while the first wave of pilots, having raised their children without contractual benefit, and while managing both career and family, found that maintaining their seniority as a first officer allowed them the necessary flexibility in their schedule.

Sally described taking time off on maternity leave and coming back with a new appreciation for “our job and our career and a tremendous appreciation for what I am capable of as a woman. I come back to a complex environment where I can go fly a jet again, and I am so glad that I have this other piece of my life.” These participants shared that combining parenthood and flying was gratifying; however, some things haven’t changed. Katie says, “every time a woman has a baby, it’s like reinventing the wheel.” Furthermore, she adds, securing parental leave for the men in the organization was difficult, noting “I remember the first guy who took paternal leave...I can tell you the other guys were brutal... the stigma is disappearing, and men make that lifestyle choice too, it’s not just a female issue anymore. It’s a lifestyle choice and you are going to attract more people...based on the fact that they may not want to give one hundred percent to the organization,” demonstrating a shift in values, a yearning towards lifestyle choices.

The stories show how values and assumptions are changing as more women join the ranks of pilots on the flight deck. Lifestyle is primary for some of the participants, while others recognize an organization's right to not hire women if their demands contrast with organizational needs. Women show they value time, in this case their schedule, consistent with the assumption that women's role in the family is primary; however, we see a shift where parenthood is a consideration, and responsibility for childcare is shared and valued. There is a monetary expense for either parent to choose childcare over their organization. As more women join the organizations, the realities of juggling work and childcare are increasingly an issue, regardless of a pilot's sex or gender identity.

Summary. The image of the airline pilot as a masculine (agentic), male leader is not in question; however, these women have challenged the culture, creating opportunity for themselves and others to diversify and expand on that image through the valuing and upholding their "feminized" leadership style and values. The data shows that, despite the historical opposition to women in a masculinized culture, women have successfully navigated the boundaries, opening the flight deck door, and situating themselves in the most technically advanced airplanes flying today. These women belong on the flight deck, and their experience challenges the "command and control" style of leadership, adapting to it when necessary, yet creating space for a more participatory style of leadership.

In the following discussion of these findings, I focus on the culture of the aviation industry, and how the interview data offers solutions that challenge the masculinized culture experienced by the participants. Specifically, I engage the question of how feminized values, identified in the findings and in the literature, relate to the research question, and how they inform an inclusive culture that creates space for women.

Discussion

The purpose of the study was to explore women's experiences in a masculinized culture, to answer the research question: *How can learning from women's experience as professional pilots provide insight into transforming that culture into one that values a feminine leadership style on the flight deck?*

The culture of an organization forms initially as its members adapt through a shared understanding of beliefs and values articulated by the leadership. In the aviation industry, demand for diversity and inclusivity are an economic reality as western culture shifts, the necessity for pilots increases, and the current membership ages and retires. This creates an opportunity for the pilots to evolve and change their behaviour as basic assumptions, beliefs and values are formed through the growth of subcultures. The literature shows how a masculinized culture is challenged by the addition of feminized values. The discussion below begins by recounting the history of women's experiences in the aviation industry, recognizing how biases and stereotypes excluded women from the flight deck. Succeeding discussion focuses on how women have created space on the flight deck, having adapted to the masculinized leadership style and emerging as leaders and creating a subculture. Finally, the discussion turns how to create a culture that values women and the value of feminine relational leadership styles, moving away from gendered divides and towards an inclusive flight deck and organization that inspires all and creates a culture that is sustainable in an evolving organization.

A Sexist Organization: The Historical Culture of the Aviation Industry

According to the Centre for Aviation statistics, less than six percent of the professional pilot population are women (Centre for Aviation, 2018), an obvious disparity between men and women who choose piloting airplanes as their profession. One of the research objectives was to

identify factors that contribute to this disparity, by looking at women's experience entering the masculinized culture of the aviation industry. As was presented in the literature, Schein (2017) said that to create cultural change, we first must assess the existing culture, that is the shared basic assumptions, values, and artifacts. The discussion first looks back to observe how the image of the professional pilot was constructed as a heroic (masculine) male.

As the participant's stories confirmed, the myth of the heroic male pilot is an artifact of a larger aviation industry culture—a blend of skill and confidence embodied in a pseudo-military uniform: a dark, tailored suit, crisp white shirt, gold band signifying authority and hierarchy, and the hat. As the industry emerged after the Second World War, the flight deck door was closed to women. The pilots' union, the Airline Pilots Association (ALPA), was complicit in constructing the image of the pilot as male and masculinized, banning the first female co-pilot hired by an airline in 1935, and ensuring women could not work in the airline sector until thirty-eight years later (Ashcraft & Mumby, 2003). This powerful, male-dominated culture reinforced a collective sense of identity in the members, making cultural change difficult (Schein, 2017).

The female pioneers' stories told of blatant sexism; they were denied opportunity on the basis of their sex. In the literature, Acker (1990) tells us that much of the “discourses conceptualize organizations as gender neutral” (p. 142) but she argues that an assumption of gender neutrality is problematic because it results in only men's experiences are taken as the workplace norm. Minnich (2005) furthers an understanding of gender in its operations as a system of meaning, saying that “gender refers to the masculine/feminine stereotypes that prescribe how sex should ‘mean’” reinforcing, as a natural fact, the notion of “man as the ‘kind’ of human that ought to be dominant” (p. 119). It is this cultural norm of masculinity that is not easily understood, and must be emphasized, to respond to the errors of “confusing equality with

sameness by establishing the defining few as those to whom others must become similar to achieve equality' (Minnich, 2005, p. 142). In the case of the participants, who were not the right "kind" of pilot or leader, they persisted and found opportunity through their capability and their expertise.

Safety First: The Value of Integrating Women as Leaders in the Aviation Industry

Leadership, Schein (2017) asserts, is critical in the creation of a culture and in cultural change. As represented in the literature, the aviation industry materialized out of the military, where the leadership was exclusively male. The culture of the airline sector continues this hierarchy of rank and decision-making: the captain serves as the final arbiter of safety, the first officer defers to the captain, and the flight attendants defer to both the first officer and the captain's authority. As the participant's stories tell, a distinct style of leadership appears.

The difficulties that exist for women in aviation are almost exclusively related to gender stereotypes of the heroic male pilot and the cultural assumption that women are not fit for leadership roles. The literature tells us that a gendered organization means that all aspects of workplace culture, including leadership, are patterned according to a presupposed default male worker, and that "advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine" (Acker, 1990, p. 146). Minnich (2005) explains the faulty logic of gender leads to conflating man with human, and reinforces, as a natural fact, the notion of "man as the 'kind' of human that ought to be dominant" (p. 119). This faulty, inequitable, idea of leadership offers an incomplete knowledge about what constitutes good leadership and who can enact it. As noted in the findings, the participants spoke of not having their voices heard, and their experience in this regard is affirmed by Bierema's (2016) insight that "leadership

experiences that do not fit into the masculine model are silenced” (p. 125); an example of this is reflected in one participant’s experience of entering the flight deck in a pilot’s uniform, and not being acknowledged as a pilot by a (male) maintenance engineer. Understanding that a masculinized culture works to silence women permits a better understanding of the necessary paths to change the patriarchal system in which the culture resides. Privilege supports silence, and breaking their silence is one way that women who have achieved success in the industry can use their voices to change the path for women who subsequently pursue aviation as a career.

Recognizing the fact of sexual difference and valuing feminized leadership styles is difficult when gendered roles and beliefs about the attributes of men and women is consensual in a culture (Eagly & Karau, 2002, p. 574). The women I interviewed shared how they reverted to a masculinized leadership style as necessary, adapting to a command and control leadership, while revisiting their collaborative style of relationship building as their preferred style of leadership. Role incongruity between feminine attributes and leadership qualities, as described in Eagle and Karau (2002), causes confusion for males who believe women should behave in stereotypical ways and women are constrained when they do conform to their gender roles. Through their stories, the participants showed they are capable of “doing” masculine gender roles when required; however, even when leading “heroically,” they are grounded in communal vs. agentic values; participants repeatedly show they *choose* to listen and collaborate, consider each crew member’s knowledge before making the decision they are tasked with as leaders. Moreover, these feminized values of relationship building are discussed in Schein (2013) as the kind of leadership required in organizations where safety is a key value. Indeed, anyone can enact feminine values, and the sex of the leader is not (or should not be) an issue where safety is a

concern, for, as Schein reminds us, in a given culture, “most of us know what is situationally appropriate” (p. 69).

To that point, a concern for safety and sharing of responsibility in aviation organizations is increasingly supporting a shift in leadership styles by embracing crew resource management (CRM) as a tool for pilots who have historically assumed “command and control” as the default leadership style. Pilots perceive this change in cockpit philosophy as undermining the image of absolute power, and collaborative leadership as a threat of feminization of the image of the pilot and increasingly as a loss of control and status (Ashcraft, 2005). The participants said that, as leaders, their preference is a collaborative and communicative leadership style, recognizing that a desire for relationships is built on skills of listening and learning, even while acknowledging their ability to demonstrate a command and control style of leadership when situationally appropriate. There is a tension created between “empowered crews and impotent captains” (Ashcraft, 2005, p. 78), and which is perceived as an inherently gendered phenomenon. The women I interviewed are materially adding to the accumulated knowledge of aviation leadership, and through their actions, proving how a female, feminized embodiment of the pilot ought to be equally valued on the flight deck. However, as Minnich (2005) reminds us, adding a few women when they have been historically excluded does not itself solve the problem of a sexist, masculine culture if it leaves in place the system that perpetuates that inequality; that is, the masculine values of domination continue to dominate the organization. It is fortuitous for women leaders and the aviation industry as a whole that feminine leadership styles are becoming more mainstream. As Edgar Schein and Peter Schein (2018) argued, successful leadership thrives “in a group culture of high openness and high trust” by building relationships. Describing leadership and culture as “two sides of the same coin,” they assert that their leadership model involves

creating a culture that focuses on a presently changing workplace, emphasizing the “soft skills” of cooperative leadership, as imagined by those women pilots as they challenge the masculine, heroic leadership style dominating the aviation industry.

Safety is the key value in the aviation industry and communications across hierarchical boundaries is critical. A culture that allows people to speak up about issues pertaining to safety is created when a relationship is developed, and this occurs by asking questions, sharing knowledge, and “creating a climate of openness” (Schein, 2013, p. 4). The women who participated in this study demonstrated their desire for relationships in the workplace, understanding they are seen as being soft and indecisive, yet standing by and asserting their values of listening, accessing their crew members knowledge, and then using that knowledge to make their decision.

Creating Space: Imagining the Aviation Culture of the Future

According to Boeing, eight-hundred thousand new pilots are needed to meet the demands of the airline sector of the industry over the next two decades (CNBC.com, June 17, 2019). This is the impetus needed to motivate a shift to a more inclusive aviation workplace, which entails embracing relational, feminine values at all levels of the organization. Organizational culture expert Edgar Schein (2013) describes building relationships as key to cultural change, which requires “reinforcing the ‘soft stuff’” (p. 117). The participants’ stories gathered through this research illustrated the importance of building relationships, using their self-described “soft skills” to lead and support other pilots as on the flight deck. This subculture of women pilots, “getting to know each other as individuals through *personization*” (Schein 2013, p. 120), are demonstrating what Schein says is needed to “create the culture that makes purposeful forward movement sustainable as the world of work evolves” (Schein, 2013).

To further this cultural shift, women voices must be heard in the union and the industry. Cultural change for established members is difficult. Schein (2017) reminds us that assumptions inferred from known values, reinforced in organizational culture, are taken for granted assumptions that eventually drop out of awareness (p. 6). Conscious efforts through equal opportunity initiatives allow men to claim that equality does indeed exist, and that women must compete in terms of skill and commitment; however, Acker (2006) found organizations where women achieve equality and opportunity, “only if the women function like men...put in the same long hours as their male colleagues...put their work first, before family responsibilities” (p. 445). One participant said, “I put my hand up at every opportunity, whether it was paid or unpaid” even though it left her feeling like “a gas tank on empty.” Other participants acknowledged their willingness to prioritize lifestyle choices over economic gains. One woman in the union leadership, a voice for other women, articulates what she says is the dangerous phrase, “because we have always done it this way.” These women understand the need for cultural change.

The participants argued that one change they imagine for the future is equating a woman pilot as simply a pilot. The literature tells us that, when it is unconsciously or consciously assumed that whether a job is best accomplished by a male or a female worker, male and female inequality is constructed through gender essentialization and feminine devaluation (Ronen, 2018, p. 6). With more than ninety percent of the pilot population defining themselves as the default embodiment of a pilot, women who have earned their stripes have done so by performing fearlessly to ensure an inclusive flight deck. While the literature reminds us of the importance of valuing feminized leadership characteristics, regardless of the sex of the pilot performing those styles, the participants question the sex-role stereotype of the label “woman pilot.”

The literature on feminist organizational theory says that women should embrace cultural diversity and “reject the negative identity of ‘being woman’” and arguably, when the participants suggest negotiating maternal benefits, they are rejecting any negative identity, as women are predominantly affected by the financial and career cost of bearing children. The social norms are that women will raise the children, and this creates an obvious demand for changes to the working conditions, addressing the amount of time spent away from home. The participants agreed that flying and motherhood work well together; however, consideration for the demands of caring for children after birth is most consequential for women and not male pilots. The participants suggest work/life balance should be addressed. One participant said, “to me, the most valuable currency is time.” Contract negotiations between the pilot’s association and the organization can address these and other issues pertaining to childcare and work life balance. For this to occur, women must organize to have their voices heard and to make work/life balance a priority at the bargaining table. Any negotiated improvements to lifestyle would be a benefit to all pilots, regardless of gender.

Broad pressure exists across professional organizations, as well as the predominant culture in the West, to uphold the image of the pilot as male and masculinized; therefore, the shift needed in organizational culture is to value the female pilot and the feminized leadership style, regardless of the identity of the person that enacts that collaborative and communicative style and understands relationship building as significant in the organization.

A culture that values pilots, acknowledging gender and valuing differences.

The ambition of creating equal space on the flight deck demands that we learn from and with other women; we learn how they feel about an organization, and whether they feel that they can participate equally in that organizational culture. Bushe & Kasam (2005) articulate that

changing culture is about changing ideas (p. 164). Below, I discuss how female pilots have breached gender barriers in their organizations and the reasons why their feminine leadership competencies and values have allowed them to persist and succeed.

The participants showed that, despite the stereotypical image of the pilot as the heroic male, women adapted. Through feminized values of building relationships and communicating knowledge, they were able to create camaraderie with the male pilots. As Schein (2017) noted, occupational cultures evolve as socialization occurs during education and training. Although the door was open a crack, opportunity for advancement was denied women based on sex role stereotypes; however, with focus and drive, attributes that are socially accepted and expected of males, women persevered. Comparing the values and beliefs identified in the interviews allows a probe of the deeper assumptions about whether women belong in the aviation industry.

In the past four decades since women have been granted access to the flight deck, little has changed in the gender profiles. The literature shows inequality is ubiquitous in the aviation industry, and has symbolic significance in the organizational culture, particularly as it pertains to hierarchy on the aircraft. As such, gender as a system of assign value and rank is present through the “processes, practices, images and ideologies” (Acker, p. 567, 1992). The pilots interviewed have learned to “do gender” by constructing personas appropriate to the myth of the male pilot that dominates the public imagination and organizational culture of the aviation industry. The participants adapted to masculinized behaviour as necessary; however, the real distinctions between male and female embodiment and women’s preferences for a feminized leadership style must be acknowledged before women can become full participants on the flight deck. Learning occurs when those women who have thrived share their experiences, identify their strengths and

values, and advance those strengths and values in all facets of workplace communication and processes in which they have influence.

One common theme echoed in the participants' interviews and in the research was that, despite historical inequality of opportunity, women shared a common passion; they loved to fly. These pilots share their time and their passion with other women and young aspiring girls, volunteering and speaking at events that promote women in aviation. The pilots struggled for access to jobs and experiences that ensured they had opportunity for promotion and movement in the industry. Their ability to access their own agency was questioned by their male peers, as opportunity was seen to be given to them *because* they were women, or in one case, a bilingual woman. Despite these barriers these women have uniquely created their own opportunities to shift the culture by demonstrating their ability to lead and by sharing their knowledge and experience, establishing a flight deck that thrives through values of openness and trust, listening and asking questions instead of telling. (Schein, 2013). The participants showed their style of communications is effective in forming relationships and necessary to transforming a culture in a hierarchical organization (Schein & Schein, 2018).

The pilot's union, acknowledging gender and valuing differences. Opportunity in the aviation industry for woman has historically been denied by both the military, and the dominant labour union, the Airline Pilots Association (ALPA). Labour unions claim to create a just system; however, those that have historically excluded membership based on gender fail to adequately serve their members. Women were not permitted to be pilots in the military. The airline sector emerged from the military and when the pilot's union was formed, women were refused membership, virtually excluding them access to the flight deck in the burgeoning aviation industry (Ashcraft & Mumby, 2003, p. 153). Culture in organizations is created through

problem solving, and the airlines were no different. Excluding women ensures not only a struggle to be recognized, but as tokens, we play the role of “exceptions that prove the rule” (Minnich, 2005, p. 70). Allowing a few token women on the flight deck does not address the systemic inequalities; instead, we must continue to learn from, and with, the experiences of other women. To do this requires challenging key assumptions; it requires strategic planning and goals; it requires resources and education, allies, and most importantly it requires imagining what can be.

The literature on the differences between female and male leadership styles considers the characteristics of leadership as possessing either masculinized traits of individualism, assertiveness and dominance or feminized traits of empathy, communication, and connection. (Eagly & Karau, 2002, p. 574). The participants show that women enact different concepts of leadership, have a sense of what it takes to be an effective leader, recognizing the chain of command on the flight deck; yet, demonstrating their preference for a collaborative and communicative leadership style. The literature shows that in order to participate within the dominant meaning systems, women learn to speak and act in ways that make sense to others in that culture (Minnich, 2005, p. 75). Instead, female pilots should challenge the more traditional “heroic” construct that defines and situates leadership in the context of rank and status and build relationships that are key in interdependent and diverse cultures. By asking questions, and empowering the other crew members, women leaders establish relationships. In an environment where safety is paramount, communications across hierarchical boundaries creates a climate of openness where all crew members voices are valued (Schein 2013).

The participants articulated details from their narratives that can be turned into knowledge, and their interview data contained good evidence for why it is important and wise to

make the flight deck more inviting to women. It is clear from the data that the participants chose to follow their passion and set their sights on a career in aviation, persevering, despite cultural attitudes and gender bias that had been historically constructed to keep them off the flight deck. The question remains, how have women who have achieved leadership positions in the aviation industry overcome the issues in a culture where they are not the norm? The literature shows that the image of the pilot was constructed to be male and to have qualities that make him a heroic leader; even the male labour union representatives, responsible for protecting the rights of female pilots, have held themselves up as the idealized version of the professional pilot, thereby contributing to a workplace that has no room for female embodiment of flight leadership. The discussion needs to turn away from the sex/gender hierarchy in organizational culture where the qualities stereotypically associated with the default (male) pilot and “masculine” values of lone heroism, authority, and command and control are imagined as the universal truths of professional excellence. Rather, there is value in imagining a broader notion of excellence when the discussion turns towards envisioning a culture where the values of pilots who have been constructed as the “other” can add to the knowledge of what leadership on the flight deck looks like (Minnich, 2005, p. 111). The participants in this study imagine a world where there are only pilots, not one kind of pilot. That there is a necessity for a hierarchy to exist on the flight deck is not in dispute; however, the universal acceptance of the masculinized leader enacting this hierarchy *is* in dispute. Rather, the role of “empowering manager” (Ashcraft et al., 2012, p. 480) is one that appears to be embraced by female pilots enacting feminized leadership values and communication skills that build strong cultures based on care and collaboration. The relational “soft skills” necessary to make the flight deck an inclusive domain are enacted through networking and community building. Women no longer want an organization that debates their

family responsibilities—they want an organization and a work-life balance that contemplates these ambitions. One way to achieve these goals is through organization and collaboration. Women must prioritize their objectives, build relationships and alliances within the aviation organizations and within the pilot’s union. Cultural shifts can be realized through small and incremental changes.

Summary. Understanding and including women’s experience can inform aviation organizational communication while also advancing the values that can drive the cultural shift needed to support the progression of women in the aviation industry. Moreover, interpreting the stories of female pilots provides a means to assert the organizational value of women’s experience to the organization itself, challenging the historical, mythic image of the professional pilot in the process. These goals require an organizational shift away from hierarchical, command and control leadership towards a culture that values “interpersonal and group processes” (Schein & Schein, 2018, p. 117). In the case of aviation, like so many other high-status professions and leadership positions, it is the “disembodied worker” (Acker, 1990, p. 149), who is actually the white, heterosexual male, who embodies the mythical image of the successful, trustworthy pilot. It is worth considering that male pilots may also appreciate the opportunity to enact a more collaborative, community-centric image of professionalism and flight leadership. The women’s stories of partner’s who chose to remain as first officer to share in childcare demonstrates this desire. The literature also speaks of men and women yearning “for both sides of the binaries” (as cited in Harding et al., p. 58). The participant’s style is embraced in crew resource management (CRM), a model of leadership that is mandated by Transport Canada; however, it is not yet fully accepted by the pilots who embrace the historical command and control leadership style that pervades the image of the airline pilot. CRM training is an

opportunity to revisit the benefits of building effective cooperation, communication, and team learning across the hierarchical boundaries found in flight crew.

Summary

In answer to the question of “*How can learning from women’s experience as professional pilots provide insight into transforming that culture into one that values feminine leadership style on the flight deck?*” this discussion has sought to show how organizational culture and the underlying assumptions, beliefs, and values predominant in western culture create an ongoing obstacle to women on the flight deck; however, it has also sought to show the participant’s feminine leadership style based in relational values of care and mutual support, and knowledge sharing, and their abiding love of the job, allowed them to overcome these obstacles. These pilots are living their values, demonstrating to themselves and to others what is possible in an otherwise masculinized culture. The analysis of the data has revealed essential elements of organizational design that can be used to encourage organizations to learn from these women’s experience, toward the development of a culture of safety, and they include: authority and decision making; communication styles; values and leadership; issues pertaining to hierarchical authority, specifically concerns about training; the processes of promotion and upgrading in status from first officer to captain; and, crew resource management as a leadership tool. My hope is that these design elements will provide an organizational development structure that is grounded in feminine leadership values and principles of humble leadership, giving evidence-based direction to future applied and collaborative inquiries with female pilots, all flight crew members, and the union.

Conclusion

Organizational life is “expressed in the stories people tell each other every day, and the story of the organization is constantly being coauthored” (Bushe & Kassam, 2005, p. 166). In listening to the women who earned their place alongside men on the flight deck and examining how their stories provide solutions on how to shift a culture and create space for women, this research sees great hope for the future, of women’s place in aviation, and for the culture of aviation itself.

Increasingly, opportunities for women on the flight decks of commercial and military aircraft are materializing as supply and demand for pilots increases. It is important to research culture in aviation organizations to understand how, through increasing cultural diversity, organizations can evolve to be “effective in the future” (Schein, 2017, p. 352). The female pilots interviewed for this study have embraced their leadership roles in the industry, serving as role models to other women, creating networks, and mentoring young women who may not imagine the opportunity for women as pilots. Minnich (2005) reminds us that prejudice is systemic, and that “exclusion and devaluation” of whole groups or “kinds” of humans shapes the world in which we find meaning (p. 79). Women are excluded because of the cultural assumptions (within organizations and the larger society) that positions the dominant male pilot as the “norm and the ideal” (p. 88) and perpetuates stereotypically masculine values of command and control over more feminine values of communication and mutual care. Culturally, women must conceptually and materially unravel themselves from the mythic image of the pilot as the heroic male and create a culture that builds on their feminine values and beliefs, learned through their embodied female experience. Having made space for themselves on the flight deck, these female aviation leaders now have the task of communicating the positive contribution of feminine values and

wisdom gleaned from women's embodied female experience with their fellow pilots and others in their organizations, using the evidence of their experience to make an inclusive and diverse complement of pilots and crew critical to their future success.

Building upon the women's knowledge and experiences can be envisioned as constructing the image of the pilot of the twenty-first century—a diverse leader who embraces humility, values learning and knowledge, respects asking instead of telling, and builds relationships to create open dialogue across hierarchies—and ultimately, a culture that adheres to the basic assumption that is key in the aviation industry: safety first.

Limitation and Exclusions

There are several limitations of note. For one thing, the women interviewed were employed in the airline sector of the industry, except for one participant. The research was prepared as a requirement for a thesis, creating logistical boundaries of time, therefore necessarily limiting the number of participants. Further studies could engage diverse groups of women and focus on other sectors of the industry, particularly the culture of the military.

The focus of my questions is through a gendered lens, and how gender, as a system of signifying differential value and meaning on the basis of sexual difference, affects the image of the female pilot and female pilots' experiences of aviation workplace culture, not on other differences. The only organizational culture I focused on is the culture of aviation, and only on Canadian aviation organizations. My data relied solely on women's experiences and their memories of those experiences, because my goal was to add the voice of experienced women to the research. In focusing on the value of their stories, my intent was to add to the understanding of the complexities of organizational culture as regards the experience of role incongruence women face in the aviation industry. My intention was to look at how the sex of a pilot matters to

their career and how social perceptions of the pilot role and the consequences of female embodiment shape how women experience their careers and provide leadership. Further research can build upon the findings of this research, and it would be useful to add the experiences of different cultural and ethnic backgrounds, including both men and women in focus groups that look at the value of feminized leadership and how it relates to safety in the organization. A lack of women's participation in the aviation industry is a global phenomenon, and especially problematic in hierarchical cultures where the patriarchal system is unchallenged.

Finally, my research was constrained by limitations of time and scope. Initially, my intention was to establish a focus group of participants. Once specific organizational design elements are identified, pilots can continue this research together and participate in a collaborative design process, exploring together what could and should be envisioned for the organization, in relation to each element identified above. Further applied research could build on undertaking a full appreciative inquiry, imagining a fluid strategy based in these and other emergent design principles.

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Appendix A
Participant Consent Form

My name is Noreen Newton and I am conducting a research project as part of my thesis for the completion of a Master of Arts in Professional Communication degree offered by the School of Communication and Culture at Royal Roads University.

My credentials with Royal Roads University can be established by telephoning Dr. Virginia McKendry, at 250-391-2600 ext. 4846, my thesis supervisor. Alternatively, she can be contacted at virginia.mckendry@royalroads.ca. For additional queries about the research, you may also contact Dr. Julia Jahansoozi, Director, School of Communication and Culture at julia.jahansoozi or 250 391-2600 ext. 4764.

This research project has received clearance from the Royal Roads University Research Ethics Board. If you have any questions regarding your rights as a research participant, please contact the ethics office at ethicalreview@royalroads.ca; 1-250-391-2600 ext. 4206.

This document constitutes an agreement to participate in my research project, the objective of which is to address understand how women's experience as professional pilots in a masculinized aviation culture provide insight into transforming that culture into one that is more supportive of women and women's way of leading on the flight deck.

The data to be collected in this qualitative research study will consist of a series of semi-structured one-on-one interviews focusing on the personal narratives that will include information about and references to you. The interviews will be recorded and transcribed for analysis. The transcripts of the interviews will contain no personal identifying information in an effort to protect the confidentiality and privacy of the participants. My research will challenge the masculinized culture of the aviation industry, specifically addressing gender issues by asking how women's experiences as professional pilots can provide insight into transforming that culture into one that is more supportive of women and women's way of leading on the flight deck. In the second phase of analysis, a focus group will be convened with some or all of the participants, sharing the initial analysis, and discussing those findings to imagine an inclusive organizational culture for the future.

This consent form seeks your consent to be included in the study.

A copy of the final research paper will be housed at Royal Roads University. If and before the author chooses to pursue publication with a journal, further consent will be sought from you.

You are not compelled to participate in this research project. If you do choose to participate, you are free to withdraw at any time without prejudice. Similarly, if you choose not to participate in this research project, this information will also be maintained in confidence.

By signing this letter, you give free and informed consent to be included in this project.

Name: (Please Print): _____

Signed: _____

Date: _____