

6. Beyond multi-culture: When increasing diversity dissolves differences

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‘Culture’ has for more than a century been a concept of growing importance in explaining an increasing number of features of society, including the aviation industry and flight safety (Batteau, 2001). This is also illustrated by the recent emergence of ‘safety culture’ as a concept used to explain accidents and incidents in high-risk industries (Reason, 1997; Zhang et al., 2002). Culture is thus a multi-faceted and complex concept, applied to professions, organisations as well as to safety. This means that although the concepts of culture, in particular safety culture, are widely used in engineering-driven high-risk industries they may still be difficult to understand and apply in the work environment.

This chapter will review different concepts of culture in a particular high-risk industry, i.e. aviation, from a practical Human Factors perspective. The focus will be on multi-cultural airlines, i.e. those where the staff comes from a wide variety of countries from all continents and where no individual nation makes up the majority of the staff. An all-embracing culture to guide its diverse workforce is for these airlines a necessity to ensure that safety issues are effectively managed throughout the organisation. The authors of this chapter are currently working as specialists in

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Human Factors for such an airline, in which slightly less than half of the nations of the world are represented among its pilots and even more are represented among its cabin crew and ground staff. In this diverse group of employees each of them bring along their own relation to professional culture (e.g. adherence to procedures), organisational (e.g. loyalty to company) and safety culture (e.g. attitude to risk). This chapter will be based on the observations and experiences of the authors from their day-to-day interaction with pilots of this airline, with the intention of providing practitioner perception of how concepts of culture play out in this reality.

6.1 Pilots and the concept of culture

The concept of culture is used in many different ways and could refer to anything from bacteria in a laboratory, any artistic means of expression (literature, art, music etc.), to “the way of life for an entire society” (Williams, 1975). Already in the 19th century Tylor (1871, p. 1) defined culture as: “...that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society”. A little more than half a century ago the expansion of the concept was illustrated as the anthropologists Kroeber and Kluckhohn (1952) put together a list of 164 definitions of culture. Such a list could probably be extended by far today, e.g. by adding the definition by United Nations Educational, Scientific and Cultural Organization (UNESCO, 2002) of culture as being: “... the set of distinctive spiritual, material, intellectual and emotional features of society or a social group”.

Although most of us would probably be able to apply the concept of culture in conversation, it may be easier described than defined. A very simple and non-restrictive description may be to say that anything we do that is beyond physiological needs involves aspects of culture; we need to eat – but what we eat and how we eat it will be immersed in culture, we need to sleep – but if we sleep alone in a bed, on a mattress on the floor will not only be a matter of resources and practicality, but also of culture.

The diversity of definitions and descriptions of culture seem to reflect its complexity and extended use throughout many areas, but for the more narrow scope of this book chapter the definitions and descriptions provided above will be sufficient. However, to be able to use the concept of culture to understand organisational safety and the role of culture in this context a breakdown of the global concept of culture is needed.

Such a breakdown has been provided by, amongst others, Hofstede (1980; 1991), who in his research used the concepts of national culture, professional culture and organisational culture. Hofstede's studies have been extraordinarily influential and his methodology was later used by Helmreich & Merritt (1998) in their studies of national, professional and organisational culture in aviation. Thus, examining these concepts and exploring their potential use in understanding the relation between culture and safety for a multicultural airline seems like a solid starting point.

6.2 National culture

The concept of national culture is perhaps the intuitively most persuasive sub-concept of culture. Beyond cherished national stereotypes there is a significant literature that assumes that each nation has a distinctive, influential and describable culture (McSweeney, 2002). Hofstede (1980, 1991) statistically analysed data from attitude surveys from a total of 117 000 employees of IBM or IBM subsidiaries in 66 countries collected 1967 to 1973. This led to the formulation of four "main dimensions" of different national cultures (a fifth, long versus short term consideration, was added later). These dimensions are (Hofstede & Peterson, 2000, p. 401):

- *Power Distance*: The extent to which the less powerful member of organisations and institutions (like the family) expect and accept that power is distributed unequally.
- *Uncertainty Avoidance*: Intolerance for uncertainty and ambiguity.
- *Individualism versus Collectivism*: The extent to which individuals are integrated into groups.
- *Masculinity versus Femininity*: Assertiveness and competitiveness versus modesty and caring.

Although Hofstede's methodology, results and conclusions have been questioned and he has been accused of gross over-simplification (see McSweeney, 2002), these dimensions have remained influential. Hofstede considered the IBM employees representative first and foremost of their respective culture and claimed that his work "uncover the secrets of entire national cultures" (1980, p. 44). The same dimensions were used for pilots by Helmreich & Merritt (1998) as they collected 15 000 questionnaires from 36 airlines in 23 countries. These dimensions (as well as the research of both Hofstede and Helmreich & Merritt) are also currently used by the authors in Human Factors instruction for pilots in their current airline.

For those national cultures represented both in the work of Hofstede, Helmreich & Merritt, as well as in the author's airline, some of the results of applying these dimensions seem to be close to what would be expected from even limited knowledge about these cultures: Malaysia and Philippines are high on *Power Distance* both for the IBM employees and for pilots, while Scandinavian countries are low for both. Korea and Taiwan are high on *Uncertainty Avoidance* for both IBM employees and pilots, while Great Britain and Ireland are low for both. *Individualism* among IBM employees is high for Anglophone countries and even higher for pilots. *Masculinity* is high for IBM employees of most countries (except the Scandinavian), but in particular for Japan, Switzerland, Italy and Germany – but this is abruptly changed when it comes to their pilots (they all move to the bottom of this scale – for more details on this data, refer to the original research or contact the authors.)

This data is rich in providing starting points for thoughts and discussions on the role of culture and its impact on the safe and efficient operation of an aircraft, and as such it can be very useful. Overall some trends to notice from this data are that the overall pilot population scores higher on *Power Distance* and lower on *Uncertainty Avoidance* than the 'general population' (as Hofstede's considered that the IBM employees would represent). More strikingly is that on *Individualism* the pilot population scores are remarkably higher than for the general population. While *Masculinity* scores high for the general population in many countries, the situation among pilots is more complex (e.g. with the score for many countries changing drastically).

Even with disregard of methodological issues, the time between these data collections (1967-1973 versus 1996) is a concern when trying to interpret the data. Another concern is that the concept of national culture is weakened by the natural continuation of this concept into 'regional culture'. In probably any country there would be regions fiercely promoting their own regional culture, normally in opposition of the officially recognised national culture. These concerns serve as healthy reminders that the concept of national culture, as convincing as it may seem, becomes problematic when it is confronted with the variety and complexity of interactions between different types of cultures (more on this later).

Although the concept of national culture may be questioned, the authors have experienced a vast amount of supportive reactions and minimal dissent from pilots when they are presented with results for their own national culture or national pilot culture (i.e. the results from Hofstede and Helmreich & Merritt). From the perspec-

tive of an instructor who wants to initiate discussion and raise awareness about culture, it can be concluded that the results presented to the pilots do not seem to contradict their perception of their national culture or of their national pilot culture. A facilitated discussion, used to consider and challenge the results of Hofstede and Helmreich & Merritt, can provide a pilot who is joining a multi-cultural airline with an awareness of this new environment and advise on how to navigate it safely. This can then be replaced by the gradually growing experience of working with more than a hundred different nationalities in the air and on the ground. Alternative dimensions to use for this purpose are high/low context and mono-/polychronic by Hall (1976) or linear active/multi active/reactive by Lewis (1996).

Certainly, the risk of reproducing stereotypes and myths about culture is one that should be considered when initiating any discussion on this topic. However, the perhaps 'simplistic' model of culture provided by Hofstede and Helmreich & Merritt is the most appreciated part of initial Human Factors training for joining pilots and seems to support their transition to this multi-cultural airline. The more interesting question for the authors has been to what extent joining pilots consider themselves representatives of their national culture, or national pilot culture, when they transfer to working in a multi-cultural airline.

6.3 Professional culture

Sirmon & Lane (2004) identified the concept of professional culture as existing "when a group of people that are employed in a functionally similar occupation share a set of norms, values and beliefs related to that occupation. Professional cultures develop through the socialization that individuals receive during their occupational education and training". Although there may be many professions which would fit this description, few are guided as extensively by international conventions and regulations as the pilot profession, e.g. pilot training is detailed down to the number of hours required for different phases of training for different types of licenses (Dahlström, 2002). The global regulatory framework for aviation ensures that most pilots have had very similar experiences from their initial training and further on until they assume command of a large passenger aircraft.

Two strong features of pilot culture is their pride in their profession and a sense of personal invulnerability (Helmreich, 1999). The pride and commitment pilots have to their work is a very positive aspect; they normally love to fly and are strongly motivated to perform well. The sense of invulnerability is a negative aspect that the aviation industry for three decades has tried to counter with Crew Resource

Management (CRM) training; training focused on information processing, decision making, communication, cooperation and leadership. Although difficult to quantify, there is an industry consensus that this training has been successful in reducing incidents and accidents (to the extent that it is now mandatory; Salas, Wilson, Burke & Wightman, 2006).

As noted previously, the most significant difference between the overall results of Hofstede (1980) and Helmreich & Merritt (1998) is that pilots score far higher on individualism. This is a difference that is even more emphasised for the pilots of the authors' current airline. These pilots have normally changed not only country, but continent, to come to this airline for the progress of their career (as well as for an improved personal lifestyle). As expected, these are pilots with a strong commitment not only to flying, but also to professional performance and achievement. Although this positive aspect of individualism and independence may be seen as only manifested in the quarter-century long accident-free record of the company's operations, it can also be seen in the distanced relation between the pilots and their company. They have come here to fly and they are first of all pilots, not members of a greater organisational community.

Some of the features of the pilot culture may be best explained by some of the popular jokes that ground staff, air traffic controllers, cabin crew and pilots themselves enjoy telling each other:

How do you know there is a pilot in the room?

- He will tell you.

How many pilots does it take to screw in a light bulb?

- Only one, the world revolves around him.

What is the difference between God and a pilot?

- God does not think that he is a pilot.

A little boy tells his father: "Daddy, when I grow up I want to become a pilot." The father replies: "Well, you can't do both."

These jokes normally make any group of pilots burst out in laughter, which is an indication not only that they contain a grain of truth but also that this grain is well recognised among pilots as representative of a trait of their professional culture, i.e. the self-confidence and ego of pilots. Naturally, any passenger would probably prefer a pilot with more self-confidence rather than one with less, and today these jokes serve as reminders of attitudes and pilot 'mythology' that were proved unsafe by previous generations of pilots. In the authors' view, modern and successful pilots

have managed to maintain a great self-confidence and – proved by that pilots themselves enjoy the jokes above – merge it with a healthy dose of self-awareness in regards to the weaknesses and risks of over-confidence.

A seemingly plausible assumption is that the strong focus on adherence to Standard Operational Procedures (SOPs) in the aviation industry needs to be even more emphasised in a multi-cultural airline. If a situation, beyond those predicted and prescribed with solutions by manufacturer or operator, would arise there may be a risk that differences in culture (i.e. communication, cooperation, leadership) compound the situation and makes it more difficult to resolve. This assumption may, however, not be true. In an ongoing study, comparing the airline of the authors with a homogenous ‘national airline’, the data indicates that the pilots of the multi-cultural airline value communication more and are willing to spend more effort on it than the pilots of the ‘national airline’. Continuously working with pilots of other nationalities may actually lead to increased awareness of the importance of communication and enhancement of skills in how to communicate safely in the cockpit.

Although the pilots of the airline of the authors represent an abundance of nationalities they are remarkably alike in many aspects. Certainly, this is partly due to a rigorous and meticulous selection process, but even so the similarities go beyond what could be expected to be the result of any selection process. In a short text which has been circulating on the Internet, with unproved but implied scientific base, the ‘pilot persona’ is described in detail. Since the source of the text has not been verified this text will have to be seen as purely anecdotal evidence, nevertheless the uncanny precision makes even an excerpt of it enjoyable reading for anyone who ever worked closely to pilots:

Pilots tend to be intelligent but are typically not intellectually oriented. They like ‘toys’– boats, cars, motorcycles, big watches, etc. They are good at taking things apart, if not putting them back together. Pilots are concrete, practical, linear thinkers rather than abstract, philosophical, or theoretical. On a scale that ranges from analytically oriented to emotionally oriented, pilots tend to be toward the analytical end. They are extremely reality- and goal-oriented. They like lists showing concrete problems, not talking about them. This goal orientation tends towards the short term as opposed to the long term. Pilots are bimodal: on/off, black/white, good/bad, safe/unsafe, regulations/non-regulations (“The Pilot Personality”, 2007).

As brutally stereotyping this text may seem it is a description that pilots circulate on the Internet and seem to agree is representative of who they are. Although focused on personality, its implications for pilot culture are not difficult to discern. Between the lines, individualism, independence, confidence and an orientation towards direct and simple solutions to problems (rather than time-consuming and complex) can be detected. Also, in the gated community where the authors live, together with pilots from their airline, there is a surprising (or not, then) amount of boats, cars (not the average Corolla or Civic) and other vehicles to be found.

Overall the pilots in the multi-cultural airline of the authors are well represented by the description above. Also, they place great value on clear communication and make a conscious effort to ensure that this is what they perform in the cockpit. They are self-confident but possess a healthy distance to most of the ‘mythology’ of their profession. They are committed to their profession – often talking about flying in private time (to the joy of male friends, to the despair of the wives of pilots and friends alike) – and focused on their own performance and achievement rather than that of the organisation or even of other pilots. In addition, the pilots who choose to come to this airline are probably even more ‘typical pilots’ than those who stayed in their home-country – they crossed continents to come here. These pilots are first of all representatives of their profession, secondly of their home country and, in best case, thirdly of the organisation they belong to.

The authors have a shared experience of performing Crew Resource Management (CRM) training for pilots in more than twenty different countries for all types of operators. Since aviation is largely based on engineering and consequently flying is based on numbers, i.e. speed, altitude, heading, fuel quantity etc., pilots from all over the world have immediate access to a common language. This use of numbers includes how pilots often introduce themselves to each other, i.e. by providing information about years in aviation, flight hours, aircraft types (737, 320 etc.). In addition, many technical terms, abbreviations and acronyms are common throughout aviation. However, the common ground of pilots seems to extend beyond this ‘aviation speak’. This has been observed by the authors, at work as well as on leisure time; pilots often have common values, attitudes and interests. In other words, irrespective of nationality they do what pilots do – in the air and on the ground. In short, a pilot is a pilot is a pilot, irrespective of nationality.

6.4 Organisational culture

A more modern reinvention of the concept of culture is that of 'organisational culture', often referred to as 'company culture' (although the former is a wider concept). Schein (1985) defined it as "A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems." (A simpler version of this may be "the way we do things around here".)

Developing and maintaining an organisational culture has in the last twenty-five years been perceived as increasingly important for all types of organisations. Beyond the obvious parallel with the concurrent increased focus on and value of brand names, there have been a number of 'soft' arguments in favour of organisational culture. Among these are that for managers, a strong organisational culture can decrease internal conflicts and increase cooperation, and in the end increase staff retention and productivity. For the employee an organisational culture can guide decisions and actions and eliminate the need for always asking the manager what to do. It can also provide a sense of community and a source of pride in regards to other organisations.

For pilots, it is far less so; their license, their type-rating (qualification on a certain type of aircraft) and number of flight hours of experience are far more important to them than the benevolence of any individual airline. There are airlines which go to great lengths to protect their pilots in exchange for increased loyalty to the organisation, e.g. providing guarantees for continued employment in case of loss of license due to medical reasons. But there are few such airlines left and the proliferation of the low-cost airline concept probably means that there will be even less of them in the future. Since most pilots have paid for their own training (or qualified for airline sponsored or military programs through extensive testing and selection procedures), and then struggled to build up flight hours on small aircraft they are not likely to be any more loyal to an airline than they expect an airline to be to them (i.e. in most cases not particularly loyal at all). If this sounds harsh it should be noted that in the previously quoted text ("The Pilot Personality", 2007) circulated among pilots, it is stated that:

They have difficulty trusting anyone to do the job as well as they can. Pilots tend to be suspicious, even a little paranoid. In moderation, this quality serves them well within their environment and is, in fact, a quality that managements look for in the pilot personality.

Returning to the view of passengers, they may certainly prefer a pilot who is paranoid about safety than one who is relaxed about it and so does airline management. Self-sufficiency and independence seem like suitable traits for anyone who decides to challenge gravity and it is unsurprising that these traits translate to a pilot culture where the relation with management is characterised by, if not suspicion, at least a certain amount of scepticism. Although pilots are aware of the need for their company to make money, they are not likely to be favourably disposed to someone who most of the time are expressing that they want them to work more, rest less, and carry more load and less fuel.

In the airline of the authors, the high individualism and independence expected among pilots who may have crossed continents is indeed present in the pilot population. There have however been events which have provided the pilots with enough faith in the company to give it the benefit of the doubt. These instances involve when tragic accidents or long-term illness have hit pilots or their family. Solidly supportive responses from the company have built up a trust that beyond the day-to-day operational strife over responsibilities and resources the company can and will do the right thing when it matters most. This in turn has bred a, perhaps reluctant and limited – but still, respect and loyalty among the pilots.

A more cynical view of organisational culture than the one presented initially would be that it can be seen simply as another effort by management to overcome that there normally is a difference between what managers want to get done and what employees actually do. For management, an organisational culture can indeed make employees more loyal, perhaps even to the extent that they, without detailed guidance, continuously can make the ‘right’ decisions for the company. Thus, managers would be able to control the organisation and still ‘empower’ their employees. Due to the suspicious and sceptical nature of pilot culture in regards to management, this is the view pilots have on attempts to integrate them in a company culture. They are not buying it. They are empowered enough from the fact that they are pilots.

6.5 Safety culture

That there would be a relation between culture and safety would probably have been less than obvious in any discussion more than three decades ago. However, the concept of ‘safety culture’ has since then become increasingly important in the literature about safety and Human Factors (Reason, 1997; Hudson, 2001; Gadd & Collins, 2002; Wiegmann et al., 2002; see also the chapter by Meyer&Horn, this volume). The emergence of the concept is widely cited as being connected to the nuclear

accident at Chernobyl in 1986, where a ‘poor safety culture’ was identified as a contributing factor (IAEA, 1986). Although commonly used, the concept of safety culture has been criticised for “considerable disagreement between researchers as to how safety culture should be defined” (Zhang et al., 2002, p. 3), and also for empirical efforts as “unsystematic, fragmented and in particular under specified in theoretical terms” (Pidgeon, 1998, p. 203). In spite of such difficulties there are frequently used definitions, e.g. “Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety and by confidence in the efficacy of preventive measures” (Health and Safety Commission, 1993). Reason (1997, p. 195) stated that a safety culture would include the following sub-cultures (with explanations adapted by the authors):

- Informed – a culture where information of relevance to safety is of priority and effectively managed and communicated with information systems for this purpose.
- Reporting – a culture where accidents, incidents and organisational as well as individual errors are reported, in particular by those who were involved in them.
- Just – a culture of non-punitive attitudes towards error, but also one where violations of rules and procedures are considered unacceptable and consequential.
- Flexible – a culture that allows and promotes reconfiguration of the organisation according to shifting conditions for production or threats against it.
- Learning – a culture where data-driven conclusions from safety information translates into implementation of operational and organisational change.

Beyond definitions, any understanding of safety culture needs to focus on the balance between safety and economy. With that in mind, specifications of the building blocks of a safety culture, like the one above, leave many practical problems to be resolved. In reality, if an organisation is well ‘informed’ in regards to safety, it is likely to be at least equally well informed on production costs and profit margins. Thus the conflict between production and protection may simply be reproduced by personnel with more information at hand. Safety reporting can require an openness that can be in direct conflict with disclosure of information that is sensitive for business interests, e.g. when reported incidents leak to media. Balancing the ‘just culture’ line between one that punishes error and one that accepts violation is difficult, and any perceived misstep by management undercuts its credibility (Dekker, 2008). Strict adherence to procedures is normally promoted and protected as the primary

method of staying safe and to simultaneously promote ‘flexibility’ can be problematic. Learning means adapting and adapting may include finding ‘shortcuts’ in how to perform tasks. Indeed, the theoretical base of the concept of safety culture provides limited practical guidance on how to develop and maintain such a culture, and even less on how to navigate the practicalities and politics in a large organisation (other than repeatedly referring to the importance of ‘top management commitment’). Even when based on applied aviation research, carefully formulated definitions of safety culture can only begin to bridge the gap between theory and practice (Helmreich, 2000, p. 4):

A safety culture is the outcome that organizations reach through a strong commitment to acquiring necessary data and taking proactive steps to reduce the probability of errors and the severity of those that occur (Merritt & Helmreich, 1997). A safety culture includes a strong commitment to training and to reinforcing safe practices and establishing open lines of communication between operational personnel and management regarding threats to safety.

Although definitions are important to clarify the topic at hand they fall short of providing guidance on how to develop and maintain a safety culture in the face of operational realities. Airlines pilots are normally well paid, i.e. they are expensive for the company and need to be used for flying. Development of an organisational culture requires communication in many different forms, i.e. meetings between individuals as well as groups. In particular symbolic communication (seasonal staff meetings, company anniversaries, award ceremonies etc.) and shared experiences (teamwork, projects, negotiations etc.) are often considered important (David, 1999). In many airlines, pilots are normally not included in such activities since they live by their roster and are either flying, resting or preparing for their next flight. They are also considered a too expensive commodity to be kept on the ground for such purposes and anyway, maybe they would be considered too much of individualists to appreciate it.) The opportunities to form a pilot safety culture based on an organisational culture are simply not available in most airlines.

For the pilot who paid for his own training, spent years flying small aircraft on an equally small salary and whose primary organisational context is working with different colleagues every day it is not obvious how an organisational culture would be able to reach out and embrace him or her. The uniformed crew, coordinated work process and aircraft decorated with a company logo may all seem to signal a strong

influence of organisational culture. However, uniforms are worn by crews of any airline, work is performed by mandatory procedures and the aircraft are the same (from either one of two main manufacturers) regardless of the logo on it, i.e. these are signs of professional culture more than company culture. In the airline of the authors there is limited effort spent on integrating pilots in an active organisational culture as seen in many other modern companies. The pilots are well paid and provided with support in terms of accommodation, health care and schooling. This arrangement seems to be mutually acceptable and preferable for the pilots as well as for the company.

In any discussion on pilot safety culture it must be remembered that most pilots simply report for flight duty, bring their aircraft to their destinations, return them to base and then go back to their home. This means that there are few opportunities for any meaningful human interaction allowing the formation of any other culture than the professional culture. Relatively few pilots shift profession within their organisation, a majority of pilots shift organisation within their profession. This indicates that the pilot safety culture is based far more on professional culture than on organisational culture. With the violent volatility of the airline industry in mind, and how often this leads to that pilots are forced to change to a new company, passengers probably are grateful for this.

6.6 Further practical aspects of language, culture and safety

How do these different aspects of the concept of culture play out in an extremely multi-cultural organisation, such as an airline where more than a hundred different nationalities have to cooperate to provide safe and efficient air transport to an equally diverse clientele of passengers? Along with the theoretical and practical examples provided previously there are of course other ones, ranging from the seemingly trivial to philosophical.

The most obvious, perhaps theoretically trivial but practically problematic, aspect is communication; that people with very different backgrounds need to communicate using a common language. Although the professional culture of aviation to a large extent has a globally standardised and specific vocabulary for direct operational issues, the use of colloquialisms, slang and other normal features of daily use of any language is impossible to prevent. A small and simple example was provided during refuelling of an aircraft where a senior cabin crew member asked a junior to “cover her door” (procedures demand that cabin crew keep watch over certain exits when refuelling) and when she returned there was a blanket hanging over the door.

Also, the pronunciation of certain words may lose their intended meaning when cross-cultural communication takes place in a common language, which may lead to the intended action not being carried out (e.g. “Cheer up” – “Gear up”, “AP (auto-pilot) on” – “Flap one” and “Take-off power” – “Take off power”). As proved in a number of accidents (see Dan-Air 1008, American Airlines 965, Avianca 052, etc.) these types of such language difficulties can, particularly in highly stressful situations, be contributory to accidents.

Also, when differences in background translate to differences in values and beliefs (e.g. regarding family, attitude towards woman, etc.) it can be difficult to find common ground to start off from in the cockpit. Pilots have the advantage that they normally are passionate about their work, providing an obvious common ground, but differences in background can inhibit the migration from professional to private and informal conversation. The ability to explore and find common ground for conversation can provide a fast introduction to in-depth knowledge about the person you are working with; it is a springboard to cooperation beyond what is dictated by the procedures of the cockpit. Such relations are of importance for safety, as indicated by an over-representation among accident crews of those crews who were on their first day together (National Transportation Safety Board, 1994, p. 41). Even where common interests may be expected they may still not be common at all, as can be seen with sports. While descendants from the Southern hemisphere often share a passion for rugby and cricket, people from Europe may rather speak about football.

One example of how difference in background can affect perception comes from telling pilots a simple story and then notice their reactions. The set up of the story is that after a long flight the crew arrives at a hotel and decides to meet in the bar before going out to dinner together. Then comes the punch line: “And when you come down to the bar the captain sits there, wearing a dress.” Asked how they would react to this, pilots initially become a bit bewildered, but even more so for pilots from countries high on power distance and masculinity. Pilots from more progressive countries in terms of gender equality more often come up with the ‘correct’ response, i.e. that the captain is a woman. Although this is a deliberate set up to provoke a certain reaction, it is difficult to not consider if such a mindset could adversely affect the management of an emergency situation where a female captain would be giving the orders.

Another example to consider in regard to mindset is that which female pilots and pilots from developing nations may be subjected to by pilots from developed nations. These pilots normally need to prove themselves more so than those of de-

veloped nations before they are fully accepted in the pilot community. Discussions that the authors had with female pilots on several international events have revealed that most of them feel that they have to undergo an extra 'pre-flight selection process' by their male pilot counterparts, regardless if they are the captains or the first officers, as they are being assessed on their overall background and ability. When both crew members are male this ritual is normally short and at times even non-existent. Pilots from developing nations are also frequently reporting that they have been subjected to this pre-flight ritual. In essence, female pilots and male pilots from developing nations need to prove themselves before being accepted, whereas male pilots from developed nations normally are accepted unquestionably. This mindset often may skew the initial perception of the true ability of individual crew members.

Helmreich (2000, p. 3) claims that there are no inherently 'good' or 'bad' national cultures. He does however go on to state that "Each culture has elements with both positive and negative implications for effective group function as it affects these universal goals". Although the professional culture of pilots is normally strong enough to overcome an unsafe national culture, the authors would suggest that in countries which lack social stability simple survival instinct may favour a propensity for risk taking. In a developing country with a high crime rate its citizens may frequently need to break legal and social rules in order to survive, e.g. not stop at traffic lights to avoid hi-jacking, ignore someone who is asking for help due to fear of it being a set up for a robbery or generally avoid to be overly trusting to any stranger. This may condition those citizens to the extent that breaking of rules becomes the norm rather than the exception. An example of this may be that in Northern Europe rules are commonly seen as absolute, non-negotiable and are often followed without a question, while in Africa they are seen more likely to be seen as advisory, negotiable and become subject to interpretation or ignored. This 'rule-breaking' in the interest of survival could then potentially be carried over to flight operations. However, when candidate pilots from developing countries are integrated in the culture of their profession as well as in the overall safety culture of aviation, the risk-taking seems to be reduced. In addition, moving to a multicultural airline and becoming integrated in a more stable social climate further enhances an overall positive attitude to safety.

Having highlighted and emphasised, as well as exemplified, many of the difficulties of a multi-cultural airline operation, it is however of utmost importance to now stress how, given the circumstances, surprisingly rare and inconsequential these difficulties are. In a truly multicultural organization, no single national culture

dominates the others. The pilots from each specific nationality tend to hold onto the values of their national culture, e.g. traditions, beliefs and customs. Pilots from the same country will often be found socialising as well as celebrating the holidays and performing the rituals of their home country. Additionally while the professional culture of pilots worldwide has common grounds, there are subtle differences that allow pilots in a multicultural airline to differentiate amongst one another. This makes it difficult for such an airline to describe with precision the 'typical pilot' of the airline. The lack of domination by any one culture in a multicultural airline may suit the hosting country well in that no single culture may be strong enough to dominate the overall culture of the airline. The hosting nation thus has the ability to promote its airline using its own national culture as the flavour of the airline, while it uses the professional culture of the pilots to promote the safety; a combination that has been utilised successfully by many multicultural airlines.

6.7 Conclusions

Concepts of culture are convincing in explaining behaviour to the extent that the professional, organisational and safety culture should be used carefully to avoid over-interpretation of individual behaviour in terms of culture. What seems clear is, however, that when it comes to the culture of pilots, professional culture and its emphasis on safety, is by far the most influential of these cultures. That a multicultural environment could be as beneficial as it is problematic to aviation safety has, however, received little attention. As indicated by an ongoing study in the airline of the authors, the awareness of culture as an important factor for successful cooperation actually leads to an increased effort by pilots to communicate clearly. Thus it may be that the limited influence of national culture in a multi-cultural airline increases the focus on the professional culture of its pilots and leads to a homogenisation of the culture among these pilots (which may be further increased by the limited influence of organisational culture among pilots). The presence and strength of the professional pilot culture is likely to be an important factor in explaining the limited negative (and in fact partly positive) impact on operations of a multi-cultural environment in the airline of the authors. For pilots, any other cultural influence on piloting skills is a matter of perception, delivery of ability is the reality.

Pilots in a multicultural airline are recruited and selected based on their ability, with stringent entry requirements regarding their psychological profile, communicative and cooperative skills and total flying hours. While the aspect of culture does at times provide problems in the cockpit, the airlines of the future are more likely to

benefit operationally as well as commercially from being able to recruit talented pilots from a larger pool of candidates. Where a multi-cultural cadet pilot training program is implemented, this will result in a pilot recruitment process where the only overriding factor is ability, and cultural issues in regards to operations may then become irrelevant as all pilots are subjected to the same training standards and norms from their entry in the airline.

Work in the cockpit needs to get done safely and efficiently regardless of the potential problems of an operational multi-cultural environment. A strong professional pilot culture focuses on getting the work done, to the extent that differences originating from diversity decrease in importance and dissolve. In the end, safe and efficient operation is delivered by pilots who are guided primarily by their professional culture and have moved beyond 'multi-culture' as an influential factor in the cockpit.

6.8 References

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