Culture Indicators in Global Aeronautical Communication

Indicadores de Cultura na Comunicação Aeronáutica Global

Anna P. BOROWSKA (The University of Warsaw)[1]

ABSTRACT

Aviation English has been used globally and now is regarded as lingua franca of aviation communication. Communication in any foreign language entails cultural connotations. Moreover, reactions caused by perceived potential misconceptions of one's cultural or ethnic identity are context-dependent. Aeronautical communication in global context by definition does not belong to any specific culture, so it should be devoid of any cultural elements being effective at the same time. Participants of different cultural groups take part in this type of communication on a regular basis. On the one hand, they are equipped with the tool such as standard phraseology binding in so called routine situations in order to avoid communication breakdown as this specific code seems to go beyond the borders of culture. There is no time for an analysis of who is who, but only for the completion of the mechanical operational tasks. On the other hand, according to the conducted research, it has been observed that the operational interlocutors cannot efficiently escape from their own cultural backgrounds when communicating in both routine and non-routine situations. Therefore, still some differences in cultural perception of conversation partners do exist and influence the aeronautical communication. The article describes the current situation and presents common culture indicators in a selected context. The research shows that without any doubt, and in order to be effective communicators, the airline pilots and air traffic controllers should adopt positive orientation towards their interlocutor's culture.

Keywords: Aeronautical Communication, culture indicators, Aviation English, native speakers.

RESUMO

O Inglês para Aviação tem sido globalmente utilizado e atualmente é considerado lingua franca da comunicação no âmbito da aviação. A comunicação em qualquer língua estrangeira implica conotações culturais. Além disso, reações causadas por potenciais percepções equivocadas sobre a identidade étnica ou cultural de um indivíduo são dependentes do contexto. Por definição, a comunicação aeronáutica em contexto global não pertence a nenhuma cultura específica e, por isso, deveria ser desprovida de quaisquer elementos culturais que atuem nessa comunicação. Os participantes de diferentes grupos culturais regularmente participam desse tipo de comunicação. Por um lado, eles possuem uma ferramenta como a fraseologia padrão para as chamadas situações de rotina, para evitar problemas de comunicação, dado que se trata de um código específico que parece ir além das fronteiras culturais. Não há tempo para uma análise de quem é quem, mas apenas para completar as tarefas operacionais mecânicas. Por outro lado, conforme a pesquisa conduzida, foi observado que os interlocutores operacionais não podem escapar, de forma efetiva, de seus próprios arcabouços

---

[1] The University of Warsaw, Warsaw, Poland. https://orcid.org/0000-0002-4990-9667 ; a.borowska@uw.edu.pl

culturais ao se comunicarem em ambas as situações de rotina e de não-rotina. Logo, algumas diferenças de percepção cultural de parceiros de conversação ainda existem, de fato, e influenciam a comunicação aeronáutica. O artigo descreve o cenário atual e apresenta os indicadores de cultura comuns em um contexto selecionado. A pesquisa mostra que, sem dúvida, e para serem comunicadores eficazes, os pilotos de companhias aéreas e os controladores de tráfego aéreo deveriam adotar uma orientação positiva em relação à cultura de seu interlocutor.

Palavras-Chave: *Comunicação aeronáutica, indicadores de cultura, inglês para aviação, falantes nativos.*

1.   Introduction

Global aviation communication is an example of intercultural professional interaction. Representatives of various cultural backgrounds are brought together to perform their work under strict aviation regulations that they all are supposed to follow. Pilots and air traffic controllers communicate with each other in a manner different to the natural one, namely without the support of their facial expressions, gestures or general non-verbal behaviour. All they have at their disposal is primarily their voice, hearing and supporting text system called Controller-pilot data link communications (CPDLC), accompanied by their abilities to form utterances in both coded and non-coded 'languages'. We all know, however, the entire aeronautical communication process is not as simple as it seems.

Firstly, its international standardised medium of expression is the aviation language which is known as Aviation English, or more precisely Aeronautical English. The fact that the International Civil Aviation Organization (ICAO) instated English as the language of aviation in 1951 influenced all types of aviation communication and resulted in an aviation *lingua franca* that today is spoken by all nationalities across the world. Nevertheless, it does not belong to any particular one. Moreover, native speakers of English cannot claim its ownership, either, because the language for aviation purposes is not the same as natural English. Therefore, in the aeronautical context, the ICAO emphasises that native speech should not be privileged in a global context (ICAO Doc. 9835, 2010, 4.8.) and "…the burden of improving radiotelephony communications should be shared by native and non-native speakers" as "…native speakers of English, in particular, have an ethical obligation to increase their linguistic awareness and to take special care in the delivery of messages" (ibid, 5.3.1.3.). The aviation communication around the world takes place among speakers of different first languages. This fact also influences the use of English. To this end, native speakers should be aware that meaning in human interaction is not simply transferred, but has to be negotiated by the interlocutors (ALLWRIGHT, 1999, p. 230). Such speech variety must be learned even by native speakers of English (ESTIVAL; FARRIS,

2016, p. 19). This data points to the fact that Aviation English is, first of all, a global language as its users are mainly non-native speakers, and native speakers form the minority.

Secondly, considering the type of communication[2] between pilots and air traffic controllers that is conducted in Aeronautical English, we must admit that it is two-fold in its nature. During routine, predictable flight operations, pilots and controllers adhere to standardised phraseology based on English which the ICAO defines as "the formulaic code made up of specific words that in the context of aviation operations have a precise and singular operational significance" (ICAO, 2010, 6.2.8.4.). Being a tool itself, the phraseology cannot support expressing opinions or emotions, though it resembles a language. Accordingly, there is no place in Aviation English communication for common 'nativeness' being a key model of language in use (BOROWSKA, 2016, p. 65). The same rule applies to speaking Plain Aeronautical English reserved for non-routine situations. However, the latter is used more naturally, so there may be more space for expressing one's culture in a particular situation.

Lastly, taking into consideration all the above-mentioned factors, the example of aviation communication discussed is aimed to be devoid of cultural connotations. It is prescribed for all the nationalities in the world and does not favour any particular speakers, including native speakers of English. The result should be obvious, namely: all the participants of various culture groups can communicate easily, especially in routine situations, because the specific coded nature of aviation communication goes beyond the borders of any culture as there is no time for analysis of who is who, but only for the automatic completion of the operational tasks. However, the transmission and interpretation of messages are performed by people, not machines, and these people are equipped with a given culture that they bring with themselves to the aeronautical discourse. Therefore, some questions arise about how the operational personnel cope with so many culture groups around on the regular basis and if it is possible to trace any examples of cultural indicators present in aeronautical communication. In other words, we are to note the impact of culture on aeronautical communication. In order to observe such factors we need to analyse these aeronautical interactions that are intercultural and assess the level of culture impact on message transmitting and interpreting.

2. A metacultural group identity in an aeronautical context

Trosborg (2010, p. 2), after Varner and Beamer (2005, p. 40), claims that "language is culture – culture is language. Culture and language are intertwined and shape each other. The two are inseparable […] each time we send messages, we also make cultural choices". Thus culture signifies how an

---

[2] See BOROWSKA (2017a) for the detailed description of aeronautical communication

individual thinks, acts and feels, as a member of a group and in relation to other members of that same group (TROSBORG, 2010, p. 2). Moreover, culture explains the pattern of assumptions and behaviour formulated by human systems in response to their environment, however, within any community individual differences will always exist (HARRIS; MORAN, 1987). According to Wierzbicka (2010, p. 3), living 'in' different languages means living in different cultural worlds, with different norms and expectations. Differences may be pointed only by those who entered at least two such worlds. For example, those who work in two or more cultural worlds:

> [I]n different societies there are different culture-specific speech practices and interactional norms, and that the different ways of speaking prevailing in different societies are linked with, and make sense in terms of, different local cultural values, or at least, different cultural priorities as far as values are concerned (WIERZBICKA 2010, p. 47).

Aeronautical communication in English has brought together users of different cultures, languages and professional expectations. However, it should not be dominated by any specific culture because it is standardised globally and does not favour any particular nationality. It is often incorrectly assumed that general English norms should be accepted as the language in use is English, but it may mean American English, British English, etc., or simply *lingua franca*. Beneke (1993, p. 86) emphasises that together with the growing awareness of the degree of cultural diversity, there is an increasing demand to respect different cultural norms and values and the need to form productive working relationships. In speaking Aeronautical English, the non-native operational personnel do not aim at taking over a set of native speakers of English' behavioural patterns. Therefore, the establishment of discourse rules and international rules should be first systematised, then respected, so as the users can consciously handle them:

> I call these emerging norms "metacultural", because they do not belong to any authentic "natural" culture but are the result of a more or less controlled and conscious process. They demand a high degree of flexibility and cooperativeness, and they are not anybody's individual culture… (BENEKE, 1993, p. 95)

For a long time it was common to consider any category of people who had a shared culture of any nature a cultural group (ERIKSEN, 2002; MOERMAN, 1965). Nevertheless, according to Moerman (1965), people do not always share all their cultural traits. However, they can still form a working group. Thus we can see this phenomenon more as an aspect of relationship, not a cultural property of a group (ERIKSEN, 2002, p. 34).

As stated above, the effective routine aviation communication generally takes place over the borders of any cultural connotations. To do so, it is enough to employ the following transparent rules:

provide a clear and direct message, pay attention to the conversation, listen effectively to an interlocutor, do not involve emotions in the conversation, speak with a comprehensible accent, and use a proper speech rate (BOROWSKA, 2017a). The following examples of aeronautical routine, taken from an available online tool called liveATC.net, are expressed in standard phraseology (Exchanges 1 and 2) illustrate successful aeronautical dialogues and can be interpreted as free of any cultural connotations:

Exchange (1)
Controller (NS): AZ9180 HEAVY, THE RUNWAY 33L GLIDESLOPE IS UNUSABLE
Pilot (NNS): CONFIRM 33L IS UNUSABLE
Controller: AZ9180 HEAVY, EXPECT RUNWAY 33L. THE GLIDESLOPE ON THE ILS IS UNUSABLE
Pilot: COPY, 9180.[3]

Exchange (2)
Controller (NS): KOREAN AIR 907, HELLO, DESCEND FLIGHT LEVEL 80 [eight zero], CONFIRM YOUR AIRCRAFT TYPE
Pilot (NNS): FLIGHT LEVEL 80, BOEING 747-400, KOREAN AIR 907.
Controller: KOREAN AIR 907, THANKS AND SPEED NOW 220 [two twenty] KNOTS.
Pilot: SPEED 220, KOREAN AIR 907.[4]

The above intercultural exchanges can be thus considered as a metacultural desirable model of aeronautical communication. However, after a deep analysis of the audio material, the results may be less superficial. Namely, in both examples one interlocutor is a native speaker of English (NS) and the other (NNS) is not and belongs to high-level culture (see below). Both conversational partners are aware of their cultural diversities because they can hear each other clearly and the traffic control is in the English speaking country. It cannot be precluded that a potential linguistic behaviour adjustment took place in this situation. Although nobody expresses his personal opinion or reacts emotionally to what he hears, both conversational partners adapt their behaviour accordingly, e.g. the native English speaking air traffic controllers adjust the rate of speaking to slower when addressing a non-native English speaking pilot, whilst the non-native English pilots not only speak fast enough, but also strictly follow the standard phraseology that facilitates the understanding of other accents.

Such controlled and conscious process can be classified as an example of metacultural group identity highly requested in our context. This confirms the fact that in order to produce and interpret language appropriately we need our communicative as well as intercultural competence. Cultural differences are communicated in a variety of situations. An important reason for the academic interest in the indicators of culture is the fact that this issue has become so visible in many aeronautical exchanges

---

[3] www.liveATC.net, Boston, 2017
[4] www.liveATC.net, Heathrow, 2017

that it has become impossible to ignore. For a typical individual his or her culture can mean both his or her residence within a territory and his or her sharing of the common culture that have been conceived as given by birth, that is, the one he or she has acquired through the ethnic identification of their parents (PARSONS, 1975, p. 53). According to Parsons (ibid), ethnicity is also a primary focus of group identity, that is: "the organization of plural persons into distinctive groups and, second, of solidarity and the loyalties of individual members to such groups. It is, however, an extraordinary elusive concept and very difficult to define in any precise way". The ethnic and cultural groups remain distinctive under different social conditions and other forms of identification.

Following the latter definition, we can distinguish 'identity groups' which are involved in aeronautical communication. Thus, every participant of an aeronautical discourse is equipped with his 'group identity', e.g. being an American, a Chinese, a Pole, etc., so when he or she enters any communication process, he or she brings his or her identity to such process as well as some assumptions with reference to other cultural groups. Therefore, we should not ignore the fact that culture is always reflected when we refer to human collectivity (HOFSTEDE, 1984, p. 21). It is important to note that proper behaviour concepts vary enormously across cultures. What is seen as good, acceptable or at least satisfactory in one culture may be perceived as poor or even bad in another (BENEKE, 1993, p. 14). Gudykunst (1984) confirms that communicative behaviour takes place at low levels of awareness and it is the result of subconscious habits that are guided by cultural expectations. All of the above arguments seem to be confirmed in the aeronautical context (see point 3 below).

On the other hand, Eriksen (2002) claims that culture and social identities in general are relative and to some extent situational. It would mean that when Aeronautical English users enter the aeronautical communication dimension, they can adapt to the situation easily as it is their natural working environment. Therefore, we can refer to a metacultural group identity where the situation is defined through conversational partners' work duties.

3. Culture indicators in aeronautical communication

A metacultural group identity cannot be fully achieved without the knowledge of particular cultures. In order to improve the aeronautical communication, best practices should be specified. This can be done by observation and analysis of cultural indicators present in intercultural exchanges.

As for the professional linguistic behaviour, we should bear in mind that in the aeronautical context pilots and controllers must have the ability not only to communicate using coded aeronautical

phraseology in routine situations and Plain Aeronautical English[5], also known as a *plain language* (ICAO, 2010), in non-routine situations, but also to achieve mutual understanding through the use of their general language ability to get their messages heard and understood (MITSUTOMI; O'BRIEN, 2003, p. 124):

> Plain language in aeronautical radiotelephony communications means the spontaneous, creative and non-coded use of a given natural language, although constrained by the functions and topics (aviation and non-aviation) that are required by aeronautical radiotelephony communications, as well as by specific safety-critical requirements for intelligibility, directness, appropriacy, non-ambiguity and concision. (ICAO Doc. 9835, 2010, 3.3.14)

Otherwise, a communication breakdown may take place. The Federal Aviation Administration (FAA) notes that human error is a contributing factor in 60–80% of all air carrier incidents and accidents, citing ineffective communication and other communication-related indicators as underlying causes of such errors (FAA, 2004). Pilots and air traffic controllers are human beings, so are prone to human variations and lapses. Therefore, effectiveness, not grammatical correctness, seems to be required the most (BENEKE, 1993).

A pertinent question at this stage is what types of cultural indicators we can trace in aeronautical communication that offers no external images, but voice and hearing only. One source is, obviously, a 'language' of people who use Aeronautical English on a regular basis in the international context in order to perform their duties.

Firstly, it is a language group which is the bearer of a specific cultural possession of the masses and makes mutual understanding possible or easier (WEBER, 2010, p. 21). Thus, we should consider 'language' as it may be regarded as a marker of identities and the way of constructing boundaries. We can also observe how language contributes to the social processes involved in formation of cultural identity (FOUGHT, 2006). Moreover, the culture can be indicated by its linguistic features such as pronunciation, intonation, accent, grammar and the choice of words that carry the particular message. For instance, a simplified grammar and wrong collocations are signs of a different language background than native English.

By systematic features of language such as devoicing of suffixes or the lack of aspiration in English, we can recognise non-native speakers and sometimes even a particular nationality. For instance, German speakers of English tend to produce a glottal stop in the initial position of words that begin with a vowel and the effect this has may be disturbing to speakers from other backgrounds. This continuous stream of glottal sounds makes the language sound rough, even aggressive (BENEKE, 1993,

---

[5] See BOROWSKA (2017) for detailed descriptions on both standard phraseology and Plain Aeronautical English

p. 71). As for French, the majority of them does not pronounce the initial /h/ sound that might be interpreted as funny for some nationalities. Polish speakers, on the other hand, usually have strong /r/ sound, tend to pronounce the final consonant clusters in all possible contexts (e.g. *–ing*, *-mb*), and change the length and quality of vowel sounds. Many other nationalities have significant problems in pronouncing 'th' sounds. Speakers with similar pronunciation problems can be perceived as socially inferior not only to native speakers of English, but also to those who are better masters of English. Last but not least is the fact that incorrect pronunciation may cause amusement, objection and even anger among some culture groups (ibid).

Other verbal aspects of language worth classifying as indicators of culture are speakers' intonation and accent. According to Beneke (1993, p. 71), intonation seems to be one of the most difficult features of language to teach and learn:

> [C]ertain intonation patterns are simply not acceptable to the foreign learner… They are not accepted by the learners as a model for their own speech, because they feel they threaten their identity. They make them sound foolish, as if they were 'aping' or 'mimicking' the foreign model. In the case of English, it has become clear that most learners learn the language mainly for practical reasons, not so much as a means to integrate themselves into British or American culture. They have, on the other words, an instrumental rather than an integrative motivation. (BENEKE, 1993, p. 71)

However, in the aeronautical context these are intonation and speech rate that are "the most significant factors as they initially may influence the meaning and distort a desired concept in the hearer's mind" (BOROWSKA, 2017a, p. 139). Trippe and Baese-Berk (2019) emphasise the fact that native English speakers' prosody (intonation and rhythm) in Aviation English has been a source of miscommunication. In a FAA report on international pilot flight language experiences pronunciation, accent and speech rate are cited as the primary sources of misunderstanding between native English speaking pilots and controllers (PRINZO, et al., 2010c apud TRIPPE and BAESE-BERK, 2019). In their examination of pitch range as a measure of intonation, Aeronautical English pitch range was smaller than that of Standard English, supporting impressionistic claims from previous studies that Aeronautical English lacks intonation (ibid). Furthermore, the ICAO regulations directly indicate the goal of reduced intonation by suggesting that, in order to facilitate cross-cultural Aeronautical English communication, native English speaker pilots and controllers should "focus on keeping their intonation neutral and calm" (ICAO, 2010). It is thus crucial for this type of research to rely on the sound recording instead of a written text.

Nevertheless, these are not only the linguistic features of aeronautical communication that carry the message (NABABAN, 1993, p. 56). We can successfully distinguish nonverbal aspects of aeronautical communication. They are more subconscious than the linguistic ones (ibid, p. 55).

Aeronautical conversation partners handle interpersonal interaction without any visual clues, but only voice and hearing at their disposal. However, it happens that the interlocutor's attitude changes during an interaction and instead of being polite or neutral, for some reasons they become distrustful, impolite, ironic or even hostile towards the conversational partner of different culture.

It seems like the increase of volume and the complexity of aviation operations worldwide entails the volume and complexity of aeronautical communications. There are occasions when airline crews and air traffic controllers fail to manage situations adequately by deviating from the prescribed standards, being at the same time not aware of the errors they make. This can be caused by the above mentioned factors. Automatically, the possibility of misunderstandings increases (BOROWSKA, 2017a). Although pilots and controllers definitely share many common features of work equipment operations, the differences in their national cultures may influence their effective work[6]. The research points to people with their 'inborn' ethnic identities, who can easily and on purpose violate both a routine as well as a non-routine dialogue by revealing their 'inner self'. In such circumstances there are certain tendencies.

When the interaction begins, the first general information the interlocutors would gather about one another, based solely on audial characteristics, is their very general ethnic membership classified as, for example, a native or non-native speaker of English, or the representative of high- or low-level cultures. Gudykunst (1998, p. 180) explains low- and high-context communication as follows:

> High-context communication can be characterized as being indirect, ambiguous, and understated with speakers being reserved and sensitive to listeners. Low-context communication, in contrast, can be characterized as being direct, explicit, open, precise, and being consistent with one's feelings…To illustrate, people in the individualistic culture of the United States use low-context communication in the vast majority of their relationships (HALL, 1976)…People in Asian, African, and Latin collectivistic cultures, in contrast, tend to use high-context messages when they communicate most of the time.

The voice itself becomes also an important channel of nonverbal behaviour and conveys many different messages as it contains numerous characteristics that go well beyond the speech in communicating messages, such as the tone of voice, intonation, pitch, speech rate, use of silence and volume (MATSUMOTO; HWANG, 2012, p. 140).

Additionally, Yinger (1994, p. 2) claims that cultural groups range, in various usages, from small, relatively isolated to large categories of people defined as alike on the basis of one or two shared characteristics. Furthermore, such groups are hidden in global communication, but they are more visible in situations of a smaller range, such as working in similar or same regions, or with particular

---

[6] See more in OMOLE, WALKER, NETTO (2014) *Extracting Cultural Factors from Helicopter Accident Reports Using Content Analysis*

nationalities, e.g. an Australian controller may often work with Japanese pilots, and a particular Thai pilot may often fly to New York, so may communicate mainly with American English controllers.

The following example of 1987 refers to the situation when Japanese pilots were approaching San Francisco for the first time, and confirms the fact that after so many years, in 2020, we still face the same cultural problems. There are still cases when 'pure' language training does not suffice anymore and there is a need for intercultural training in order to reduce the occurrence of similar situations:

> The pilots were sometimes not quite certain as to the exact meaning of the ATC (Air Traffic Control) instructions. When they were asked, however, whether they had understood the instructions, they would always say, Yes. It was found that many of the American controllers did not stick closely enough to standard phraseology, but tended to use idiomatic American English. The Japanese pilots, on the other hand, neither complained nor did they ask back. Rather, they would give the impression that they had perfectly understood the message. The reasons for this behaviour, it was found out, were to a large extent cultural ones. For once, complaining about deviations from standard phraseology would have meant that they, as "guests", would have to be so impertinent and impolite to criticize the "host" (US-American) nationals for "incorrect" language. (BENEKE, 1993, p. 13)

Though the above situation took place years ago, Asian high culture still faces American low culture on a regular basis and American controllers tend to use colloquial expressions. As it is still 'the type' of English used, a number of native speakers may think non-native English groups that follow their own culturally expected norms of interaction behave inappropriately because they should adapt to the English speaking environment that seems to be perceived as a dominant culture (BOROWSKA, 2017b).

In aeronautical communication there are groups of speakers who share fundamental cultural values and make up a field of communication and interaction, have a membership which identifies itself, and is identified by others, as constituting a category distinguishable from other categories (BARTH, 1969). Eriksen (2002, p. 23) classifies cultural groups as those that may have 'friendly', 'hostile' and yet 'joking' relationships: "If one knew someone's ethnic identity, one would know what kind of behaviour towards them would be appropriate".

Furthermore, at this point we can refer to cultural stereotypes that can be considered culture indicators, too. Stereotyping is worth mentioning in our context as it contributes to defining one's own group in relation to others. The groups tend to have mutual stereotypes of each other and also of themselves. Wierzbicka (2010, p. 46) claims that stereotyping is an example of danger facing those involved in intercultural communication. Some of the most outstanding cultural categories in the context of aeronautical communication seem to be Americans, Chinese, Spanish and Japanese. Thus, the following stereotypes exist in the aeronautical reality:

Americans: expressive, chatty, dominating, proud, over self-confident;

Chinese: poor English speakers, often causing confusion, asking too many questions;

Japanese: reserved, silent, polite;

Spanish: switching to their mother-tongue[7].

Other Europeans show some deviations from expected aeronautical communication, however, they tend to be more adaptive nowadays (BOROWSKA, 2017a). In order to decode and understand a message, the receiver should be aware of the cultural code in which the message is encoded as people tend to form their utterances differently. For example, Chinese leave the most important points at the end, whilst Europeans do it the other way round (BOROWSKA, 2017a). The voice and verbal style may emphasise nationality stereotype as it is culture that moderates the use of these vocal characteristics in social interaction. Therefore, in aeronautical communication, analogically as in a standard one, expressive cultures use louder voices with higher speech rates, whereas reserved cultures use softer voices with lower speech rates (MATSUMOTO; HWANG, 2012, p. 140).

Research on cockpit management attitudes also confirmed that an American crew was "more independent, self-reliant, and had personal responsibility in contributing to becoming an effective crew, in contrast to Asian crew, who were more likely to support the authority of the superior and satisfied with acting in a supportive role" (MERRIT; HELMREICH, 1996). It is obvious that a pilot must trust controller's commands because the pilot is not, in general, in receipt of enough information regarding the traffic disposition to question them (McMILLAN, 1998, p.12), but it does not allow an American controller to manifest his or her dominant attitude towards a non-native speaker of English, as illustrated by the following examples expressed in Plain Aeronautical English (Exchanges 3 and 4):

Exchange (3)
Pilot (FR): Ground, AirFrans006 Super, gate 8 is available for us.
Controller (US): No, it's not. They lied to ya. So, just hold there. I'll call you when it's available. I don't need you to tell me what I can see and you can't.
Pilot: OK.[8]

The French pilot in Exchange (3) does not react to the controller's comment, although it is the American controller who underlines his superiority. The pilot only agrees with the 'instruction' and expects further clearance. It seems that an 'American controller stereotype' is well known for the French pilot and probably with experience he got used to this type of controllers' behaviour. This example is also a proof for the fact that Americans may be perceived as dominant not only by high level cultures as Asians are, but also by Europeans. A conversational silence is valued differently by different cultural groups.

---

[7] Based on Aviation English communication research conducted by A. Borowska in the years 2011-2016
[8] www.liveATC.net, New York, 2016

The following example shows another indicator of culture that is controller's ironic attitude:

Exchange (4)a

Controller (NS): SingCargo 7997 Heavy, runway 22R, taxi… actually, I'll tell you what: follow an American aircraft coming from the left side, follow him coming from the left and then it'll be left on Alpha short of Whiskey behind him.

Pilot (NNS, Asian): Roger, that's to follow the American coming from our left to right and then left on Alpha short of Whiskey.

Controller: That's correct SingCargo, thank you.

Pilot: Thanks.

[pause]

Pilot: SingCargo 7997, confirm that's a right turn here on the Alpha?

[pause]

Pilot: Ground, SingCargo 7997, could you give me further taxi clearances?

Controller: Sir, Alpha short of taxiway Whiskey, I need you to continue on Alpha.

Pilot: Delta, the first right to me now?

Controller: Just continue the aircraft towards, you wanna go to British Airways 74 of your right side.

Pilot: OK, thanks, ok, Alpha short of Whiskey, thanks.[9]

At the beginning the interaction is proper and polite. The controller instructs the pilot again, as required, the pilot reads back and after a few seconds the pilot asks for reconfirmation. Although it is recommended in aeronautical communication to ask and confirm data as many times as it is necessary, the dialogue below is not the best example of such recommendation. This time controller indirectly criticises the pilot's inability to memorise all the instructions he was provided with, but the pilot seems to be patient enough and seems to accept the controller's behaviour and at the same time his dominant American culture:

Exchange (4)b

Pilot: SingCargo 7997, just want to confirm you the point before Hartford, could you give me the name again, please?

Controller: SingCargo, you gonna kill me, what do you want now?

Pilot: OK, ground, you were checking our routing and just the point before Hartford and Partham, could you give the point again?

Controller: Now, sir, you've been given a change of frequency, you'd be talking to the same guy all night long, see? And, you're going back for a million questions, but let's go over it: MERIT intersection, that's spelt M-E-R-I-T … Do you have any further questions about your route, your taxi route … anything else?

Pilot: Not for now, sir, thanks.

Controller: I'm sure in 30 seconds you'll have another one, but continue to the runway.[10]

[9] www.liveATC.net, New York, 2016

[10] www.liveATC.net, New York, 2016

Apparently, the pilot requires not only support from the controller, but also respect even if it means repeating the same instructions many times. The controller, on the contrary, wants to deal with routine situations quickly and smoothly and regards the need for repetition as a waste of time. He also seems to have fun by employing some irony, namely his joking attitude and giving unnecessary comments.

The exchanges (3) and (4) illustrate the fact that still some preconceptions exist beyond the prescribed rules as there are certain tendencies observed in current aviation communication. One of the reasons may be the fact that there are native speakers of English (e.g. American controllers) who treat Aviation English as their own mother tongue, so they are dominant in exchanges with non-native speakers and tend to impose their own culture, i.e. their own way of thinking and perception of the world (ERIKSEN, 2002), on all those who enter their territory, and on the communication process itself. Consequently, as seen above, they are often blamed to impede comprehension of not advanced native speakers of English and are perceived by some as the 'worst communicators' (see BOROWSKA, 2017a; ESTIVAL, 2018). Eriksen (2002, p.25) explains that stereotypes can justify privileges and differences in access to a society's resources. As far as a dominating group is concerned, they are crucial in defining the boundaries of one's own group because they inform the individuals of the virtues of their own group and the vices of the others (ibid).

It happens that during an exchange between two representatives of low level culture, a nationality of high level culture may serve as the object of amusement and is downgraded to that of a lower rank. All of this takes place in open frequency, so everyone can hear it. In the following exchange, both British and American participants make a Japanese (ANA) pilot the victim of a current situation, so they can enjoy being on the safe side. Although the British pilot shows his acceptance of American dominant culture by giving ironic comments, he might be simultaneously ironic towards the American culture, too, and may be avoiding controller's long comments in this way:

Exchange (5)
Pilot (BrNS): Ground, SpeedbirdXXX.
Controller (AmNS): Yes, sir?
Pilot (BrNS): Just to let you know. The ANA aircraft because of technical issue…err…they're trying to resolve that, but looks like they may have to go back on the stand, I'll keep you advised, but we're moving as it's done.
Controller (AmNS): As long as you're not telling the 300…well 400 odd people behind you that you're waiting because of an air traffic problem, sir, that's fine with me.
Pilot (BrNS): oh, no, no, no. we're blaming it on the Japanese.[11]

It is possible that the ability to speak perfect English and being able to react verbally in a manner suitable to the English speaking culture may take on a hierarchical character, where the groups are

---

[11] www.liveATC.net, New York, 2016

ranked according to their differential access to such a necessary tool as the English language. We can easily observe an example of the dominant group that has come to power because of the language in use. Native speakers of English tend to display their culture by the language they speak also in the aeronautical settings. However, it usually determines the mode of behaviour towards them. Therefore, we can call the native speakers of a given variety of English, e.g. American English, British English, a specific type of a cultural group. Members of such a group are, or consider themselves, or are thought to be, bound together by common ties of race or nationality or culture. Moreover, these are very often native speakers of English who lack the competence to interpret host culture perspectives and communication skills necessary to achieve effective communication outcomes in the aeronautical context (BOROWSKA, 2017a).

As far as hostile attitude is concerned, based on an analysis of random exchanges, it has been observed that the vast majority of such conversations are predominantly those where at least one of the participants is of low level culture. Again, these are usually speakers of English as their mother tongue. Interestingly, they show hostility more freely towards each other at the same group identity level, including bad words and occupying frequency time for their own inner purposes. Moreover, it seems this kind of attitude is somehow considered as manifesting one's strength by establishing the speaker's dominance in the interaction, as in the following exchange between two native speakers:

Exchange (6)
Pilot (NS, American): [callsign]{polite request}, we are VFR under the clouds right now. And if you could give me a [inaudible] for mile square.
Controller (NS, American) {negative attitude expressed by the tone of voice}: You're not familiar with this airspace?
Pilot (NS): Yes, sir, I am very familiar with this airspace. But just coming through the clouds now, it would be easier if you sir give me just heading for a moment.
Controller (NS): What kind of nav equipment do you have on board?
Pilot (NS): Slant Uniform, VOR sir.
Controller (NS): [callsign] fly heading 150, Vectors Mile Square Park.
Pilot (NS): OK, we're currently 150 sir. Thank you sir, just wanted a little help. Thank you.
Controller (NS) {comments}: Well, let me give you some advice. Sometimes we're not…we're really busy. We've got one controller working all the airspace and lotta inbounds coming in the last airlines coming into John Wayne. I probably don't always have time to hold your hand. Sorry to say that, but that's the truth.
Pilot (NS): 25 years I've been flying this airspace sir, I've never had a controller talk to me like that.
Controller (NS): You are welcome to call me on the phone.
Pilot (NS): Love to.[12]

It looks like the controller was frustrated by his workload, but it does not allow him to be rude towards the pilot who is polite from the beginning and reluctant to say anything impolite until the last moment when he is provoked to react differently.

---

[12] www.liveATC.net, KSNA Tower, 2016

Therefore, we can observe some regular deviations from the generally accepted model of aeronautical communication mainly because of cultural differences. Manifestations of culture are thus still present and prescribed linguistic rules of aviation communication are still violated. Therefore, it is not possible to discuss the potential model of aeronautical communication that is supposed to be without any cultural connotations. Fortunately, the majority of routine exchanges, mainly outside the USA, follow the prescribed example and conversational partners know how to cope with them. This means that the discourse participants may demonstrate a proper attitude towards interlocutors of a different culture, possess openness and tolerance, and are able to interpret their utterances successfully.

Concluding comments

Aeronautical communication is supposed to go beyond any cultural limitations. The majority of interlocutors have already learnt how to communicate without referring to their respective cultures. If any issue of culture appears, an effective communicator should adopt positive orientation towards a given group to be able to continue the exchange and follow the prescribed rules of aviation communication. At this point, we can refer to a metacultural group identity. When the interlocutors are familiar with a given national environment, some of them expect specific behaviour on the part of a given culture group. When this fact is established, the conversational partners would know roughly how to behave towards each other, since there seems to be some standardised relationships between such groups (ERIKSEN, 2001). However, the participants of aeronautical communication are real people cloaked in their cultural identities, so at times such an image is violated.

It has been suggested that multicultural communication is especially challenging when members of minority groups are not familiar with the discourse practices of, for example, the American dominant culture as well as have limited proficiency in the majority language. Therefore, culture indicators can be classified as verbal and nonverbal. On the one hand, it is a language that reveals its relationship with group identity because it may reveal a speaker's culture. On the other hand, communication participants may misunderstand the message not only when the utterance is unintelligible or ambiguous, but also when the attitude of an interlocutor is not proper.

Real life brings many unexpected occurrences and only by being aware of such phenomena can Aviation English users communicate successfully in this high-risk environment and reach their highest potential. It looks like a general assumption that culture does not matter in aviation communication and the situation still holds good is thus no longer valid.

References

ALLWRIGHT, R. L. 1999. Negotiation of meaning. In K. JOHNSON; H. JOHNSON (Eds.), Encyclopedic Dictionary of Applied Linguistics, Malden et al. Blackwell.

BARTH, F. (Ed.) 1969. Ethnic Groups and Boundaries: the Social Organization of Culture Difference, Boston.

BENEKE, J. 1993. English as the medium of intercultural communication: Some teaching suggestions. In J. BENEKE (Ed.), Communication in Aviation, Dummler Verlag, 2:69–101.

BOROWSKA, A. 2016. Do Expert Speakers Need to Practice a Language?. In BOROWSKA, A.; A. ENRIGHT (Eds.), Changing Perspectives on Aviation English Training, Warszawa: Wydawnictwo Naukowe Instytutu Komunikacji Specjalistycznej i Interkulturowej, Uniwersytet Warszawski, p. 61–72.

BOROWSKA, A. P. 2017a. Avialinguistics: The Study of Language for Aviation Purposes. Frankfurt am Main: Peter Lang.

_____. 2017b. Is there any dominant culture in global aeronautical settings?. In: Збірник матеріалів III-ї Міжнародної науково-практичної конференції, МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ДЕРЖАВНИЙ ВИЩИЙ НАВЧАЛЬНИЙ ЗАКЛАД «КИЇВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ імені ВАДИМА ГЕТЬМАНА», Kiyev, p. 137–144.

ERIKSEN, T. H. 2001. Ethnic identity, national identity and intergroup conflict. In ASHMORE, R. D.; L. JUSSIM; D. WILDER (Eds.), Social Identity, Intergroup Conflict, and Conflict Reduction, Oxford University Press, p. 42–68.

_____. 2002. Ethnicity and Nationalism: Anthropological Perspectives. London, Sterling, Virginia: Pluto Press.

ESTIVAL, D.; C. FARRIS. 2016. Aviation English as a lingua franca. In ESTIVAL, D.; C. FARRIS; B. MOLESWORTH (Eds.), Aviation English: a Lingua Franca for Pilots and Air Traffic Controllers, Abingdon, Oxon, New York, NY: Routledge, p. 18–48.

ESTIVAL, D. 2018. What Should We Teach Native English Speakers? In: 7. Embry Riddle Aeronautical University: Scholarly Commons.

FEDERAL AVIATION ADMINISTRATION (FAA). 2004. Federal Aviation Regulations/Aeronautical Information Manual.

FOUGHT, C. 2006. Language and Ethnicity. Cambridge: University Press.

GUDYKUNST, W. B. 1984. Communicating with Strangers. An Approach to Intercultural Communication. New York: Random House.

_____. 1998. Bridging Differences. Effective Intergroup Communication. London: Sage.

HALL, E.T. 1976. Beyond Culture. New York: Doubleday & Co.

HARRIS, P. R.; R. T. MORAN. 1987. Managing Cultural Differences. Houston: Gulf.

HOFSTEDE, G. 1984. Culture's Consequences. London: Sage Publications.

INTERNATIONAL CIVIL AVIATION ORGANIZATION/ICAO, Doc. 9835. 2010. Manual on the Implementation of ICAO Language Proficiency Requirements, 2nd edition, Montreal.

MATSUMOTO, D.; H. S. HWANG. 2012. Nonverbal communication: the messages of emotion, action, space, and silence. In JACKSON, J. (Ed.), Routledge Handbook of Language and Intercultural Communication, London & New York: Routledge Taylor & Francis Group, p. 130–147.

McMILLAN, D. 1998. "…Say again…" Miscommunications in air traffic control. Master thesis, Queensland University of Technology, Brisbane, Australia.

MERRITT, A.; R. HELMREICH. 1996. Human factors on the flight deck, the influence of national culture. In Journal of Cross-Cultural Psychology, 27.1: 5–24.

MITSUTOMI, M.; K. O'BRIEN. 2003. The critical components of aviation English. In International Journal of Applied Aviation Studies, 3.1: 117–129.

MOERMAN, M. 1965. Who are the Lue: Ethnic identification in a complex civilization, In American Anthropologist, 67: 1215–1230.

NABABAN, P. W. J. 1993. Intercultural Aspects of Communication, In BENEKE, J. (Ed.), Communication in Aviation, Dummler Verlag, 2:53–67.

OMOLE, H.; G. WALKER; G. NETTO. 2014. Extracting Cultural Factors from Helicopter Accident Reports Using Content Analysis. In STANTON, N.; S. LANDRY; G. DI BUCCHIANIO; A. VALLICELLI (Eds.), Advances in Human Aspects of Transportation Part I, pp. 3–14. AHFE Conference.

PARSONS, T. 1975. Some Theoretical Considerations on the Nature and Trends of Change of Ethnicity. In GLAZER, N.; D. P. MOYNIHAN (Eds.), Ethnicity: Theory and Experience, President and Fellows of Harvard College, pp. 53–83.

PRINZO, O. V.; A. CAMPBELL; A.M. HENDRIX; R. HENDRIX. 2010c. US airline transport pilot international flight language experiences, report 5: Language experiences in native English-speaking airspace/airports (DOT/FAA/AM-10/18). Washington, DC: Federal Aviation Administration, Office of Aerospace Medicine.

TRIPPE, J.; M. BAESE-BERK. 2019. A Prosodic Profile of Aviation English. Journal of English for Specific Purposes, 53:30-46. Available at:
<https://www.researchgate.net/publication/325631733_A_Prosodic_Profile_Of_AviationEnglish>.
Access: 19 Feb. 2020.

TROSBORG, A. (Ed.) 2010. Pragmatics across Languages and Cultures. Berlin/New York: DeGruyterMouton.

VARNER, I.; L. BEAMER. 2005. Intercultural Communication in the Global Workplace (3rd edition). New York: McGraw Hill.

WEBER, M. 2010. What is an ethnic group? In GUIBERNAU, M.; J. REX (Eds.), The Ethnicity Reader: Nationalism, Multiculturalism and Migration, Polity Press, pp. 17–26.

WIERZBICKA, A. 2010. Cultural scripts and international communication. In TROSBORG, A. (Ed.), Pragmatics across Languages and Cultures, Berlin/New York: DeGruyterMouton, pp. 43–78.

YINGER, J. M. 1994. Ethnicity: Source of Strength? Source of Conflict? State University of New York Press.

Dr. habil. Anna Borowska is an Associate Professor at the Faculty of Applied Linguistics, University of Warsaw. She received her Ph.D. in languages for specific purposes in 2008. As a seconded national expert at the European Commission she was involved in creating database entries on aviation terminology. She became Associate Professor in 2018. Her scientific achievements are comprised in her monograph: Avialinguistics: The Study of Language for Aviation Purposes *(2017). Currently, she is head of the Aviation Communication Research Centre. Her research focuses on linguistic problems of aviation verbal communication.*