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Anna Borowska**AERONAUTICAL ENGLISH: AN ANALYSIS OF SELECTED COMMUNICATION STRATEGIES USED BY NATIVE ENGLISH SPEAKERS IN INTERACTION WITH OPERATIONAL LEVEL 4 PERSONNEL**

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Abstract

Aeronautical English differs from general English, so it has to be learned by native speakers of English. The author refers to the particular role this group of speakers is required to play in aviation settings. The article presents Aeronautical English in current use by reference to selected communication strategies native English speaking operational personnel employ when communicating orally with non-native partners of ICAO Level 4. The article investigates the usefulness of such strategies based on real-life examples. To this end, it seems obvious that not only non-native English speaking pilots and controllers are supposed to employ communication strategies in order to avoid misunderstanding, but also their native English speaking colleagues.

Keywords: Aeronautical English; communication strategies; native speakers; operational level 4.

1. Introduction

The International Civil Aviation Organization (ICAO) introduced language proficiency requirements (LPRs) more than ten years ago in order to improve aeronautical radiotelephony communication and thereby the safety of international flights. ICAO LPRs cover not only non-native speakers' abilities to communicate smoothly, but also native speakers' linguistic behaviour which is should be adjusted to aeronautical communication needs. It is especially important when a native speaker of English communicates with conversational partners whose Aeronautical English level is operational (4) according to the ICAO Rating Scale¹. Therefore, the ICAO emphasises the following:

Chapter 3. Linguistic Awareness 1. The ICAO language proficiency requirements apply to native

and non-native speakers alike. 2. The burden of improving radiotelephony communications should be shared by native and non-native speakers. a) States should ensure that their use of phraseologies aligns as closely as possible with ICAO standardized phraseologies. b) Pilots and controllers should be aware of the natural hazards of cross-cultural communication. c) Native and other expert users of English should refrain from the use of idioms, colloquialisms, and other jargon in radiotelephony communications and should modulate their rate of delivery. d) Native speakers must ensure that their variety of English is comprehensible to the international aeronautical community. e) Plain language should be specific, explicit, and direct.

(ICAO 2010)

Aeronautical communication takes place between air traffic controllers (ATCOs) and pilots, pilots of different crews, pilots and airport services and has only, apart from technology, human voice and human attitude at its disposal. As there is "no 'global English language authority' to establish a single

¹ See ICAO (2010) Doc. 9835. *Manual on the Implementation of ICAO Language Proficiency Requirements*.

‘acceptable’ accent” [1], native speakers are expected to sound intelligible. Apparently, the use of prescribed standard phraseology by interlocutors increases the chances of flawless exchange, but when a non-routine situation takes place or when standard phraseology deviation is observed, the interlocutors have to be able not only to speak so called ‘plain English’, but also to negotiate meaning:

Native and expert English language speakers can familiarize themselves with the challenges faced by non-native speakers and adopt strategies that facilitate cross-cultural and cross-linguistic comprehension.

(ICAO 2010)

Better operational communication requires conscious effort by practising controllers and flight crews to improve their personal performance across a range of techniques and procedures [2]. Therefore, research has been conducted to measure native speakers’ effectiveness in this context and its findings confirm that the majority of respondents assess native speakers’ abilities as medium or low.² However, in order to improve this state of affairs we do not have to focus only on communication pitfalls, but we should also observe and analyse the examples of communication strategies which were used by native speakers of English (controllers and pilots) and which have worked well in real-life aeronautical situations.

2. Native speakers of English in the aeronautical context

Williams [3] emphasises that radiotelephony communication is “the prime tool for a controller and a pilot to indicate to the other their instructions and intentions”, so it is vital that each understands what the other intends and that it is then carried out accurately and without discussion. To achieve this, all the participants should be trained to use not only standard phraseology, but also strategies to negotiate the meaning. To this end, the required standard is to be maintained. Unfortunately, native speakers are hardly ever supported in this respect or they do not think they need such support. Ideally, the objective could be to make Aeronautical English as perfect as possible in order to have a linguistic model for aviation purposes [4]. However, with so many nationalities and cultures involved, it is not possible

to achieve this over the course of one generation. One of the main issues is the fact that native speakers still treat Aviation English³ as their own. Moreover, we all know that Aeronautical English is not the same as general English, let alone aeronautical communication, but yet someone considered a native speaker of English will automatically be assigned an ICAO Level 6, the highest possible level, and will therefore never be tested or assessed for English language proficiency again [5]. Nevertheless, the research shows that there is a need to train native speakers’ linguistic behaviour awareness [6].

Native speakers of English should be particularly aware that Aeronautical English is not their natural English, and pay special attention to the delivery of messages to non-native speakers of ICAO Level 4 who are not fluent in natural English:

Improving radiotelephony safety is no small matter, requiring concerted effort and widespread cooperation, and all pilots and controllers will benefit from an improved understanding of how language functions, with a focus on strategies that aid comprehension and clarity. Additionally, an ethical obligation arises on the part of native speakers of English, in particular, to increase their linguistic awareness and to take special care in the delivery of messages.

(ICAO 2010)

Ironically, native speakers are worse at delivering their messages than people who speak English as a second or third language [7]. They often speak too quickly for others to follow, use jokes, slang and references specific to their own culture (ibid.). On the other hand, non-native speakers generally use more limited vocabulary and simpler expressions without flowery language or slang and because of that, they can understand one another [8].

According to Jenkins [8], native speakers of English generally are monolingual and are not very good at tuning into language variation: “The native English speaker... is the only one who might not feel the need to accommodate or adapt to the others” [8]. Coulter agrees and claims that “English speakers with no other language often have a lack of awareness of how to speak English internationally” [9]. Additionally, Borowska (2016: 68) notes that in

² More in Borowska (2017).

³ More general term than *Aeronautical English* (ibid).

order to increase the linguistic awareness, it is advisable for native speakers to learn another language: “By doing so, they will understand better the common problems NNS⁴ usually deal with, being themselves NNS of an acquired language. Step by step, they will become conscious of linguistic diversity, i.e. problems with syntax, choice of lexis and in this way they will better understand NNS linguistic behaviour”.

The aeronautical communication mainly takes place among speakers of different first languages which also influences the use of English [4]. According to Seidlhofer [5], Aviation English has no native speakers, so it is a speech variety that must be learned even by native speakers of English. Moreover, as Aviation English is a *lingua franca* of aviation, these are native speakers of English who are at a disadvantage in a *lingua franca* situation, where English is being used as a common denominator. They may have difficulty understanding and making themselves understood [8]. It seems today, native speakers should be taught to understand the global language and also to adapt to the new situation for them because they are no longer in a superior position with their accents and communication techniques. They also need to remember they do not communicate exclusively with fluent English speakers [4], but they can face communication with an interlocutor at ICAO Level 4 on a regular basis.

For ICAO Level 4 speakers, it is particularly important to understand native speakers’ messages and negotiate meaning in case of non-routine occurrences or standard phraseology deviation (frequent in the U.S.). Therefore, a single transmission should not include too much information, should be provided in an intelligible accent, its grammar should be simple and, if possible, imitate standard phraseology utterances. The native speaker should be also willing to repeat the utterance as many times as would be necessary, not to use idioms and colloquial expressions and not to be dominant⁵. Furthermore, according to Enright [10], the essential elements of effective communication required to maintain the safety of air traffic are as follows: clear pronunciation, attentive listening, and no ethnic origin connotations. However, these may not be enough in some

unexpected situations. Therefore, Day [2] emphasises that when “controllers and pilots better understand that language is an imperfect medium and is easily misinterpreted, they will be painstakingly accurate in their use of both standardized phraseology and plain language – and the airways will be safer because of it”.

3. Communication strategies in use

So far the term *communication strategies* has been often limited to strategies resorted to when the second language learner has difficulty with communicating. Thus, communication strategy is used when things go wrong and constitutes “a spare tyre for emergencies” [11]. It provides the speaker with an alternative form of expression for the intended meaning [12]. Corder [13] defines such strategies as “a systematic technique employed by a speaker to express his meaning when faced with some difficulty”.

It has been already observed that those learners with a lower level in their second language competence need to resort to a higher number of communication strategies due to the relatively small number of linguistic resources available. More proficient learners, on the other hand, do not seem to make much use of these strategies due to their broader linguistic repertoire [14]. The latter group we can compare to native speakers. It is with experience that native speakers gain the linguistic awareness which shapes their linguistic behaviour.

Communicative strategies are “conscious plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal” [15]. In high-risk environment it is not recommended to adopt so called ‘avoidance behaviour’, i.e. trying to do away with the problem, but rather ‘achievement behaviour’ instead, which means tackling the problem directly by developing an alternative plan (ibid). Therefore, it is also interesting to see by what linguistic means native speakers alter phrases they employ so as to achieve mutual comprehension. When it comes to native-non-native interaction research studies previously summarised, it has been confirmed that in such context the strategies of comprehension checks, clarification requests, confirmation checks and paraphrasing to negotiate meaning were mainly used by native speakers to proceed in conversation with non-native speakers [16]. All of them aim to prevent communication breakdown.

⁴ Non-native speakers of English.

⁵ See more in A. Borowska ‘Is there any dominant culture in global aeronautical settings?’ (in print).

The functions of strategies used in interaction previously described seem to relate especially to the notion of fluency that is the capacity to mobilise one's linguistic resources in the service of real-time communication in order to produce and comprehend speech at relatively normal rates [17]. As far as using the communication strategies in an operational level context is concerned, there are some constraints. For example, a native-speaker may face a limited comprehension on the part of a non-native speaker. Therefore, it is very important to be careful in selecting the strategies, in a short period of time, not to make matters worse.

The research on international aviation verbal communication conducted in 2016 [6] revealed that there are native speakers of English, current pilots and air traffic controllers, who according to ICAO recommendations, use appropriate communicative strategies to exchange messages and are able to recognise and resolve misunderstandings (e.g. to check, confirm, or clarify information) in a work-related context while communicating with non-native interlocutors. Therefore, it is worthwhile to observe similar communicative strategies in use.

We should also remember that all communication strategies are shared enterprises because they are not only the speaker's responsibility [18]. According to Nerriere [8], mutual intelligibility depends in part on attitudinal factors: "If you can communicate efficiently with limited, simple language you save time, avoid misinterpretation and you don't have errors in communication". Furthermore, when trying to communicate in plain English with a group of people with varying levels of fluency, it is important to be receptive and adaptable, tuning your ears into a whole range of different ways of using English [8]. Only in this way can the conversational partners in high-risk environment identify, and then eliminate possible problems.

As Ellis [19] claims that the interactional perspective of communication strategies is best tackled by discourse analysis, selected examples of aeronautical dialogues are presented below. The following five non-routine exchanges present the proper use of communication strategies by native speakers (NS), the participants being controllers and pilots, and can be regarded as models to follow for all the participants in aeronautical communication:

Exchange (1)

Controller (NS): IBERIA6253 HEAVY, what gate number do you have, sir?

Pilot: We got number 4. Number 4.

Controller: Alright, IBERIA6253 HEAVY, stop there [*uttered slowly*], turn off your strobe lights. Are you able to enter the ramp? Are you cleared in? [*paraphrasing*]

Pilot: Alright, we take left by BRAVO and then VICTOR again.

Controller: OK, you're cleared in to the ramp, though? [*repetition, simplification – no inversion used, confirmation check*]

Pilot: Affirmative.

Controller: [*repetition of previous instruction*] OK, IBERIA6253 HEAVY, left VICTOR-ALPHA, left on BRAVO, taxi to the ramp.

Pilot: Left BRAVO, VICTOR-ALPHA to the ramp, IBERIA6253.

[22]

Although we can observe standard phraseology deviation in exchange (1), the controller (a native speaker) employs some communication strategies which can serve as models to follow. Firstly, he utters his instruction very slowly, then he asks a question, but immediately he paraphrases it so as to ask it in the simpler manner. Secondly, as the controller is not sure if by saying 'Alright' the pilot meant 'yes', he repeats the question again. This time ATCO does not use inversion in his question, so grammar simplification strategy is also employed. It was used successfully. The pilot confirms being cleared in to the ramp. Thus, the controller repeats previous instruction again ensuring that it is short. Therefore, we can conclude that due to communication strategies used in the above exchange, the meaning was negotiated quickly and successfully which is the key objective of each aeronautical dialogue.

Exchange (2)

Pilot: Ground, LOT26, taxiway BRAVO.

Controller (NS): LOT26, taxi on BRAVO, to the ramp, as instructed by the tower, please.

Pilot: Roger...via VICTOR to the BRAVO, to the apron, LOT26.

Controller: No, just go straight ahead on BRAVO, sir. Just taxi straight [*paraphrasing*]

Pilot: Straight ahead via BRAVO, LOT26. But we have terminal 7 today, gate 5.

Controller: You're going to terminal 7? [*grammar simplification, confirmation check*]

Pilot: I can confirm... new terminal for us.

Controller: OK, can you turn left at VICTOR, or do you need to go TANGO-BRAVO? [*vocabulary simplification*]

Pilot: Via TANGO-BRAVO now.

Controller: OK, LOT7, sorry, I was unaware of that. Left TANGO-BRAVO, left on ALPHA.

Pilot: TANGO-BRAVO, then ALPHA, LOT26, thank you.

[22]

Exchange (2) is an example of meaning negotiation through the use of paraphrasing, asking short questions with no inversion used but proper intonation employed instead, as well as vocabulary simplification (e.g. a simple basic verb in 'to go TANGO-BRAVO'). Owing to the correct strategies employed, there was no misunderstanding. It was observed that native speakers of exchanges (1) and (2), in order to overcome particular communicative obstacles, usually spoke more slowly, tried to simplify grammar structures by using no inversion, and paraphrased.

Exchange (3)

Controller (NS): AEROFLOT102 HEAVY, is your gate available?

Pilot: Stop before MIKE-ALPHA, AEROFLOT102.

Controller: I'm really very much aware that you'll stop before MIKE-ALPHA, so is your gate available? [*repetition, clarification request*]

Pilot: We are wait gate, AEROFLOT102.

Controller: OK, so the answer to that is NO? Your gate is not available? [*paraphrasing, confirmation check*]

Pilot: It's now available, AEROFLOT102.

Controller: Now available? [*confirmation check*]

Pilot: Now available, AEROFLOT102, we're taking to the ramp.

[22]

It often happens during aeronautical communication that a question remains without an answer. However, this does not mean that there is no answer at all. As a matter of fact, the question may be answered, but the answer does not refer to the question itself, but rather to a phrase a speaker feels obliged to utter in a particular situation. Exchange (3) illustrates such an occurrence. The controller repeats his question three times. The pilot's answers were not clear enough, so the question was asked a second time without any inversion, however preceded by a probable answer. Having received

another answer, the ATCO wanted to confirm it again and so asked a new elliptical question.

Exchange (4)

Controller (NS): And just a question, did you hear another voice there on the frequency?

Pilot: No, sir. Your voice is the only one.

Controller: OK.

...

Controller: AEROMEXICO008, it just sounded like you might've had a visitor. [*paraphrasing*]

Pilot: AEROMEXICO0008?

Controller: That transmission I heard a while ago, it sounded like you may have had a visitor [*grammar simplification*].

Pilot: We only, we can, you heard voices?

Controller: Say again [*repetition request*].

Pilot: You mean, you hear two voices in the radio?

Controller: No, I heard a child voice on the radio. Just as I transferred you onto that frequency and you were the only aircraft on the frequency. I thought you had a visitor maybe [*grammar simplification and repetition*].

Pilot: No, sir. That's no...that's negative. We have no visitor in the cockpit.

Controller: I'd better report it.

Pilot: You can hear the voice it's blocking our transmission or is it in the cockpit?

Controller: [*in a very slow manner*] Negative. When I transferred you, when you changed frequency to 129.665, I heard a child voice transmitting in Spanish [*paraphrasing*].

Pilot: That's correct. Let me, I explain you. We have a problem with the ...entertainment system and the flight attendant ...is making a call – satcom, with Mexico City. Talking to maintenance, probably ...she mistake and push another button. That could be the reason. She's talking in a Spanish with maintenance in Mexico.

Controller: OK, that's fine. No problem.

[23]

Exchange (4) shows that it is worth trying a few times to solve the problem rather than leaving it unsolved. The controller asked the same question, paraphrasing it four times, and simplifying its grammar until he received the pilot's explanation. Furthermore, each time the controller paraphrased the question he also used other communication strategies, such as simplification, repetition, slow

rate of speech. Thus, also in this case all the strategies employed worked well.

Exchange (5)

Pilot (NS): DELTA307, request the runway 8, the longest runway.

Controller: DELTA307, descend and maintain 3000.

Pilot: DELTA307, out of 4 for 3, requesting runway 8, the longest runway for San Juan. [*repetition*]

Controller: Alright, DELTA307, expect visual approach runway 8. Descend and maintain 3000.

Pilot: We're descending to 3000, DELTA307, Runway 8 [*repetition*].

Controller: DELTA307, descend and maintain 3000.

Pilot: DELTA307, descend and maintain 3000.

...

Pilot: DELTA307, just want to confirm that we do have the emergency equipment standing by for the landing. [*confirmation check*]

Controller: DELTA307, the emergency equipment will be standing by.

[24]

Exchange (5) presents the native speaking pilot who employs a mainly repetition strategy, but in this particular situation this strategy is crucial as the exchange refers to the number of the runway.

Although native speakers naturally produce a great volume of talk, they seem to remember that you need to be short, clear and direct and you also need to simplify [20]. In the exchanges above we have observed numerous meaning-negotiation strategies which were used successfully: paraphrasing, repetition, grammar and vocabulary simplification, comprehension check, clarification request, confirmation check. The transmissions did not include too much information, were provided in an intelligible accent, and did not include any idiomatic or colloquial expressions. The most frequent strategies used seem to be repetition and paraphrasing. Some native speakers used simplified constructions that were well-formed according to their syntactic intuition. Moreover, none of them chose to remain silent.

4. Conclusion

The aim of this analysis was to discover the nature of communication strategies in terms of their types and frequency. The study proved that there are

native speakers of English in aeronautical settings who use a variety of communication strategies in interaction with operational level 4 pilots and controllers. Such strategies are complementary ways of coping with communicative problems on a regular basis. According to Wyss-Bühlmann [21], there are situations where participants in ATC conversations solve communicative problems on a co-operative basis, which have a fundamentally important role in the international efforts to increase communication safety.

We need to acknowledge, of course, that the examples reported here only dealt with some occurrences and they do not cover all possible cases. In short, it is clear that further empirical studies in this area are necessary for better understanding of the difficulties that both groups may experience during aeronautical exchanges, and to work out communication strategies that may effectively support operational personnel in overcoming similar difficulties.

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Аеронавігаційна англійська: аналіз окремих комунікативних стратегій, що використовуються персоналом-носіями англійської мови під час спілкування з персоналом с 4-м рівнем володіння англійською мовою

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Аеронавігаційна англійська відрізняється від загальної англійської, тому вона повинна вивчатись і носіями англійської мови. Автор посилається на особливу роль цієї групи учасників спілкування, яку вони відіграють у аеронавігаційній комунікації. У статті піднімається питання про авіаційну англійську мову з використанням відібраних комунікативних стратегій, які використовуються носіями англійської мови під час усного спілкування з партнерами-неносіями англійської мови з 4-м операційним рівнем володіння за шкалою ІКАО. В статті досліджується придатність таких стратегій на реальних прикладах. З цих позицій стає очевидним, що, в цілях уникнення непорозуміння, всі учасники аеронавігаційного спілкування повинні застосовувати комунікативні стратегії незалежно від їхнього статусу носія-неносія англійської мови.

Ключові слова: Авіаційна англійська; комунікативні стратегії; носії мови; операційний рівень - 4.

А. Боровска**Аэронавигационный английский: анализ отдельных коммуникативных стратегий, используемых персоналом-носителями английского в общении с персоналом на 4-м уровне владения английским**

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Аэронавигационный английский отличается от общего английского, поэтому его должны изучать также и носители английского языка. Автор указывает на особую роль, которую эта группа участников коммуникации играет в условиях аэронавигационного общения. В статье поднимается актуальный вопрос об авиационном английском языке с использованием отобранных коммуникативных стратегий, которыми пользуются носители английского языка при устном общении с партнерами-носителями английского с 4-м операциональным уровнем владения по шкале ИКАО. В статье исследуется пригодность таких стратегий, основанных на реальных примерах. С этой целью представляется очевидным, что, во избежание непонимания, все участники аэронавигационного общения должны использовать коммуникативные стратегии, независимо от их статуса носителя-носителя английского языка.

Ключевые слова: аэронавигационный английский; коммуникативные стратегии; носители языка; операциональный уровень 4.

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