

## THE TELLTALE SIGNS OF CZECH SPEAKERS' MOTHER TONGUE IN THEIR ENGLISH INTONATION

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### Abstract

Intonation, even though one of the least tangible areas of language (Underhill 1994), is brought to examination here; in particular it is the phenomenon of the most prominent prosodic peak in an utterance. This contribution presents part of the results of a comparative study of the intonation centre placement in English dialogues read by English native speakers and Czech speakers of English. The focal point of the research was to establish whether Czech speakers are able to produce intonation in accordance with the actual message of the text. The framework of the study is represented by the theory of functional sentence perspective.

### Key words

intonation centre, nucleus, theme, rheme, communicative dynamism, distributional field, information structure

### 1 Introduction

To define *intonation*, one could draw a list of definitions based on various approaches and theoretical frameworks, ranging from phonetics (“intonation refers to the variations in the pitch of a speaker’s voice used to convey or alter meaning”, Roach 2009), pragmatics, discourse coherence to information structure and presumably others. The one thing they all have in common is that whatever the theory, it must always originate in the fascinating territory of authentic language and its use. This paper draws on the results of a recent research project concerned with the identification of certain phonological features that Czech speakers of English transfer, albeit unwittingly, into the way they speak English; particularly it is the phenomenon of intonation centre placement that was of primary interest.

The project was a corpus-based comparative study which analyzed audio recordings of over 170 Czech speakers and nine native English speakers, all reading five dialogues in English, with the total size of the corpus being over 33,000 words (see also Headlandová Kalischová 2009a, 2009b, 2010). The comparative analysis relied on two crucial factors: firstly, the common features of the Czech and English intonation systems, i.e. the recognition of an identical linear unit (*výpovědní úsek/tone unit*) as central to the investigation

into intonation and the use of the same *modus operandi* when identifying the main peak of prosodic prominence (*intonační centrum/nucleus*), cf. for instance Crystal (1969), Gimson and Cruttenden (1994), Petr (1986), Palková (1997), to name just a few of the numerous reference books on phonological systems of the two languages. Secondly, it was the theory of functional sentence perspective (FSP), and specifically the approach of Jan Firbas, a key figure of the ‘Brno school’, which proved an indispensable tool in processing the collected data and particularly in their interpretation.

In Firbas’s conception, a sentence (simple or complex) is regarded as the basic communicative unit and sentence elements as carriers of communicative dynamism (CD); this is the “relative extent to which an individual linguistic element contributes towards the further development of the communication” (Firbas 1979: 31). There are several factors and their interplay which exercise a determining influence on the distribution of CD within a sentence, namely the linear modification factor, the semantic and contextual factors (all non-prosodic ones) and finally intonation, a prosodic factor joining the interplay on the level of spoken language only (cf. Firbas 1992). It generally holds that the most dynamic element – in terms of a communicative message – is at the same time the most prominent element prosodically, i.e. bearing the intonation centre (IC), even though there are special cases devoid of such correspondence. In order to avoid the impression of being incoherent or possibly causing misunderstanding, it is therefore essential to place the IC correctly so that the *way* we say things is accordant with the actual *words* we say.

The current paper reports on one of the recorded texts and expounds the argumentation in support of the hypothesis that Czech speakers have a strong tendency to place the IC on the last item of an utterance, irrespective of the appropriateness of such a placement.

## **2 Material and methodology**

### **2.1 Description of the text (Dialogue 3)**

In the entire corpus analyzed in the course of the research project, it was this particular dialogue that differed as to its original source. Unlike all the other texts, which were taken from various English course books and had alterations made to them (such as rewording, cutting in length, etc.), this short dialogue was construed artificially around a single original sentence. I came across it in Svoboda (1989: 20) many years ago but its first appearance is in O’Connor and Arnold (1973: 84) and it reads *My mother came from Sheffield*. The authors use

it in relation to intonation and meaning, and inquire into the possible contexts in which it might occur. They suggest different ways it could be said, one of which is *My `mother .came from ,Sheffield*; the presupposition for such a choice of nuclear tone is that *Sheffield* had been mentioned in the preceding sentence.

On reading this, the idea of further research started to germinate as it was felt that many Czech speakers might find such a prosodic interpretation (i.e. the fall-rise type of nuclear tone) difficult. The reasons were twofold: firstly, the fall and rise are not realized within one element only but the tone is split into two parts (high fall on *mother*, low rise on *Sheffield*), and secondly, the most prominent prosodic feature (*mother*) takes a medial position as opposed to the final position, typical of Czech utterances. To prove the assumption, a little survey was conducted: the sentence was fitted into a mini dialogue and a number of Czech students and colleagues as well as two English native speakers were approached and their prosodic realizations noted. The result more than confirmed the expectation and in fact provided a final incentive for the whole project (for more details on the preparatory steps, see Headlandová Kalischová 2009a).

| Speaker | DF №             | Distributional field with an identified IC bearer  |
|---------|------------------|--|
| A       | 1<br>2<br>3<br>4 | Did I tell you about my new FLATMATE?<br>He's so FUNNY –<br>the way he SPEAKS.<br>He's got such a strong ACCENT.     |
| B       | 5                | Where's he FROM?   |
| A       | 6<br>7<br>8      | GLASGOW.<br>I've never MET anyone from there before. <i>or</i> I've never met ANYONE from there before.<br>Have YOU? |
| B       | 9                | Oh yes, my MOTHER comes from Glasgow.  |
| A       | 10<br>11<br>12   | REALLY?<br>I thought your FATHER was Scottish...<br>How long did she LIVE there?                                     |
| B       | 13               | Oh, until she was about TEN.   |

**Table 1: Scripted dialogue with identified IC bearers**

The tapescript of the dialogue used for the purpose of the study comes to twelve sentences generating thirteen basic distributional fields (altogether 1,800 words) as shown in Table 1. Column 1 indicates the two speakers, column 2 provides the number of the distributional field (DF), and column 3 presents the complete distributional field including the identification of IC (marked by capitalization). The prosodic treatment of this model derives from the versions of four native speakers<sup>1</sup>; in the case of DF (7) there were two possible candidates for an IC bearer (the more frequent one is listed first).

## 2.2 Analysis

The total number of the recorded Czech speakers is 30 (all were students at the English Department, Pedagogical Faculty, Masaryk University, in the final year of their bachelor study programmes) and they were recorded in the period from March to May 2008; the norm was established by the prosodic realizations of four native speakers (see above). The recordings were played on the Plusdeck2c system and digitalized by means of the audio editor Audacity 1.2.6; they were then analyzed on an auditory basis with focus on (i) segmentation of the text into basic distributional fields, and (ii) intonation centre placement. Finally, the Czech speakers' versions were compared against the norm in such a way that an identical IC placement was judged as "appropriate" whereas a different placement (i.e. one not used by any of the native speakers) was either assessed as "another possibility" or "inappropriate", depending on the interplay of all FSP factors. In ambiguous cases, regarding both tone unit boundaries and identification/assessment of nuclear accent, a consultation with one of the native speakers was arranged. The analyses were rechecked several weeks later to ensure the validity of the original assessment. The results of this comparative procedure (i.e. correspondences, deviations, etc.) were then tabularized (cf. Table 2 below).

Table 2 presents an overview of the analyzed data; individual columns were designed with the aim to provide the analysis in its entirety, yet in a concise form:

- Column 1:        number of a distributional field
- Column 2:        all possible intonation centre bearers as identified by the native speakers, listed from the most frequent one
- Columns 3 to 6 refer to Czech speakers*
- Column 3:        appropriate IC placement; number of occurrences and percentage<sup>2</sup>

- Column 4: percentage of unanalyzable utterances (this refers to the rare occurrence of voice qualifications (such as laugh or giggle, see e.g. Crystal 1969: 135) which hinder the successful analysis of an utterance)
- Column 5: another possibility of IC placement assessed as appropriate, number of occurrences and percentage
- Column 6: misplaced IC, number of occurrences and percentage

| DF<br>№ | Native speakers | Czech speakers        |      |    |                     |   |     |                         |        |
|---------|-----------------|-----------------------|------|----|---------------------|---|-----|-------------------------|--------|
|         | Model IC        | Appropriate placement |      | X  | Other possibilities |   |     | Inappropriate placement |        |
| 1       | FLATMATE        | 30                    | 100% |    |                     |   |     |                         |        |
| 2       | FUNNY           | 30                    | 100% |    |                     |   |     |                         |        |
| 3       | SPEAKS          | 28                    | 93%  |    |                     |   |     | <i>way</i>              | 2 7%   |
| 4       | ACCENT          | 29                    | 97%  | 3% |                     |   |     |                         |        |
| 5       | FROM            | 29                    | 97%  |    |                     |   |     | <i>he</i>               | 1 3%   |
| 6       | GLASGOW         | 30                    | 100% |    |                     |   |     |                         |        |
| 7       | MET             | 2                     | 7%   | 3% | <i>there</i>        | 9 | 30% | <i>before</i>           | 10 33% |
|         | ANYONE          | 7                     | 23%  |    |                     |   |     | <i>from</i>             | 1 3%   |
| 8       | YOU             | 10                    | 33%  |    |                     |   |     | <i>have</i>             | 20 67% |
| 9       | MOTHER          | 17                    | 57%  |    |                     |   |     | <i>Glasgow</i>          | 10 33% |
|         |                 |                       |      |    |                     |   |     | <i>comes</i>            | 2 7%   |
|         |                 |                       |      |    |                     |   |     | <i>my</i>               | 1 3%   |
| 10      | REALLY          | 30                    | 100% |    |                     |   |     |                         |        |
| 11      | FATHER          | 8                     | 27%  |    |                     |   |     | <i>Scottish</i>         | 22 73% |
| 12      | LIVE            | 20                    | 67%  |    | <i>long</i>         | 7 | 23% | <i>there</i>            | 3 10%  |
| 13      | TEN             | 30                    | 100% |    |                     |   |     |                         |        |

**Table 2: Comparative overview of IC placement in English native and Czech speakers' utterances**

### 2.3 Commentary on selected items of the database

As becomes apparent, certain distributional fields demonstrate a very high or possibly a maximal number of appropriately identified IC bearers, others display a high level of inappropriate IC placement. Four distributional fields in particular, i.e. (7), (8), (9) and (11), manifest the most obvious divergence from the norm while DF (12) finds itself at the opposite end of the scale with only ten per cent of inappropriate IC bearers, yet even this figure cannot be interpreted as insignificant. All of these instances will be commented on below: to enhance the comparison between both languages, each sentence is supplemented with possible Czech equivalents.

DF (7)

Eng: *I've never MET anyone from there before. / I've never met ANYONE from there before.*

Cz: *Nikdy předtím jsem nikoho odtud NEPOTKALA.*  
[Never before I-have nobody from-there NOT-MET.]

| DF № | Other possibilities | Misplaced IC  | № of speakers |     |
|------|---------------------|---------------|---------------|-----|
| 7    | <i>there</i>        |               | 9             | 30% |
|      |                     | <i>before</i> | 10            | 33% |
|      |                     | <i>from</i>   | 1             | 3%  |

**Table 3: Distributional field 7**

Sentence (7) brings a clear illustration of the Czech speakers' preference to shift the IC as close to the end of the utterance as possible. In the model versions, most of the English native speakers placed the IC medially on the *met* and one put it on *anyone* (this in fact corresponds to the Czech translation where the natural way of reading the equivalent is with the IC on *nepotkala*). The students' versions, however, show the following distribution:

DF (7)

| <i>I've</i> | <i>never</i> | <i>met</i> | <i>anyone</i> | <i>from</i> | <i>there</i> | <i>before.</i> |
|-------------|--------------|------------|---------------|-------------|--------------|----------------|
|             |              | 7%         | 23%           | 3%          | 30%          | 33%            |

Except for the occurrence of the IC assigned to the preposition *from*, which was used by one speaker only and can be regarded as a random mistake, the parallel between IC placement and gradation of position is quite evident. Appropriate IC placement in this case, though, excludes the possibility of the final adverbial element carrying the most prominent accent since the immediately relevant context does not justify such a placement.

As it is, the most frequent IC bearer *before*, inappropriately identified by the Czech speakers, is one of typical anaphoric items; these are neither content words nor do they represent "new" information normally, therefore they would not bear the IC unless there were a special purpose (such as contrastive or contradictory use, cf. Halliday 1970: 41). Firbas (1979: 42-44) points out that in terms of dynamic semantic functions, adverbials of place and time can serve both

as a local/temporal specification or a situational setting. In the sentence under discussion, the adverbial element *before* is context-dependent and its degree of CD cannot compete with that of the two potential rhemes (either the verb *met* or the object *anyone*); thus to endow it with the greatest prosodic prominence must be viewed as inappropriate.

Interestingly enough, the same could be applied to the element *there* (second most frequent IC in the Czech speakers' versions) as it performs an identical function as the element *before* under normal circumstances; the IC placement on this element was indeed one of the dubious instances which had to be consulted with several native speakers, who considered the accentuation of *there* in the given context as possible but not preferred. Such an intonation pattern would then have to be assessed as a case of prosodic re-evaluating intensification (cf. Firbas 1992: 156-172), i.e. the kind of intensification induced by prosody which makes the theme-rheme relationship reversed. The originally thematic element *there* becomes the IC bearer and is thus re-evaluated to rheme proper (RhPr); at the same time, the elements *met/anyone*, which would be rhematic according to the non-prosodic distribution of CD, are re-evaluated to the status of diatheme (DTh).

This shift of functions may be put down to the appearance of additional information, the emotiveness, which is irretrievable from the immediately relevant context (cf. Chamonikolasová 2007: 35-37). Even though none of the native speakers opted spontaneously for this particular prosodic realization it could not be dismissed as inappropriate and therefore it was put in the category of "other possibilities". Nonetheless, one could argue that emotiveness was not the underlying motive for all 30 per cent of the Czech speakers (considering that it was not for any of the native speakers either) and that the true reason is to do with the position of this particular element, i.e. last but one from the end of the distributional field.

The following sentences (9), (11) and (12) all qualify as the same type as sentence (7) above in terms of the non-final position of IC; their dynamic semantic analysis, however, is best carried out with regards to the concept of co-referentiality.

DF (9)

Eng: *Oh yes, my MOTHER comes from Glasgow.*Cz: *Ale ano, moje MAMINKA pochází z Glasgow. /*  
[Oh yes, my MOTHER comes from Glasgow.]*Ale ano, z Glasgow pochází moje MAMINKA.*  
[Oh yes, from Glasgow comes my MOTHER.]

| DF № | Misplaced IC   | № of speakers |     |
|------|----------------|---------------|-----|
| 9    | <i>Glasgow</i> | 10            | 33% |
|      | <i>comes</i>   | 2             | 7%  |
|      | <i>my</i>      | 1             | 3%  |

**Table 4: Distributional field 9**

DF (11)

Eng: *I thought your FATHER was Scottish.*Cz: *Myslela jsem, že tvůj TATÍNEK je Skot.*  
[Thought I-have that your FATHER is Scottish.]

| DF № | Misplaced IC    | № of speakers |     |
|------|-----------------|---------------|-----|
| 11   | <i>Scottish</i> | 22            | 73% |

**Table 5: Distributional field 11**

DF (12)

Eng: *How long did she LIVE there?*Cz: *Jak dlouho tam ŽILA?*  
[How long there she-LIVED?]

| DF № | Misplaced IC | № of speakers |     |
|------|--------------|---------------|-----|
| 12   | <i>there</i> | 3             | 10% |

**Table 6: Distributional field 12**

In order to examine the situation in these distributional fields, one needs to look at a broader context, starting at sentence (6) *Glasgow*. This is the opening member (underlined twice) of a so-called “co-referential string” (Firbas 1995:



20-23), it brings irretrievable information (as a response to (5) *Where's he from?*) and thus is rhematic. The entire string of co-referentiality demonstrates a perfect example of a compact string since none of its members (underlined) exceeds the retrievability span (approximately three distributional fields, cf. Firbas *ibid.*), see below:

- Speaker A: (6) Glasgow (7) *I've never met anyone from there before.*  
(8) *Have you?*  
Speaker B: (9) *Oh yes, my mother comes from Glasgow.*  
Speaker A: (10) *Really?* (11) *I thought your father was Scottish.* (12) *How long did she live there?*

All members of the Glasgow-string merely re-express the same referent by means of anaphora in (7) and (12), repetition in (9) and close synonymy in (11); it should be noted, however, that while anaphora and repetition are of purely linguistic nature, the last mentioned type in (11) requires extralinguistic knowledge in order to recognize the relationship between *Glasgow* – *Scottish*. Even though one would like to presume this association be part of general knowledge for undergraduates reading English as their major subject, the possibility of misinterpreting the lexical link cannot be ruled out as a potential reason for misplacing the IC.

Going back to the degree of CD carried by the above mentioned items *Glasgow* (9) and *Scottish* (11), it may be concluded that they convey fully retrievable information and in terms of the FSP functions they gain the status of diathemes. Svoboda (1989: 28-29) distinguishes three basic functions of diatheme, i.e. (i) to bring completely new information, (ii) to transfer information that has only just appeared in the preceding context, (iii) to foreground a contextually-bound element with the effect of a resultant contrast. It is function (ii) that is relevant to the situation in (9) and (11), i.e. the items under discussion transfer information that has only just appeared in the preceding context. Diatheme is the most dynamic of thematic units but it is surpassed by even more dynamic rhematic elements, the weightiest of which is rheme proper, i.e. *mother* (9) and *father* (11). The degree of prosodic prominence assigned to the diathemes in the string corresponds to the distribution of CD as determined by the non-prosodic factors; in other words, they would not bear the IC in the current context.

A final comment about the item *Glasgow* in (9) should be made in reference to the original sentence *My mother came from Sheffield* (cited in Section 2.1): the adverbial elements denoting the two cities represent an identical occurrence termed by Firbas “the post-IC prosodic shade” (1992: 153). The diathematic

element in such a setting usually carries a low rise which does not exceed the preceding fall of RhPr. This approach is in full agreement with the views of other linguists, e.g. according to Crystal (1969: 219), in the compound nuclei it is usually the first element that is phonetically dominant but the second element is the key functional element, defining the meaning of the whole tune; Cruttenden (1986: 50-51) describes the final rise following a fall (in a split fall-rise) as “downgraded from its status as nucleus” owing to the fact that rises frequently prove less prominent accents than falls. Similarly to Firbas, Halliday (1970: 38) and O’Connor and Arnold (1973: 83) link this type of compound nucleus to the information structure and attach “secondary information, subsidiary to the main point” and “some less important idea that follows the main idea” to the low rise following a fall respectively.

In light of the above mentioned reasons, the inappropriateness of the IC placement identified in the analysis of sentences (9), (11) and (12) comes across as truly conspicuous. It may be concluded that in all three instances the Czech speakers ignored the FSP requirements (to a greater or lesser extent) and followed the foregrounded linearity principle instead.

DF (8)

Eng: (*I’ve never met anyone from there before.*)  
Have YOU?

Cz: *Ty ANO?*  
[You HAVE?]

| DF № | Misplaced IC | № of speakers |     |
|------|--------------|---------------|-----|
| 8    | <i>have</i>  | 20            | 67% |

**Table 7: Distributional field 8**

Sentence (8) and its distribution of prosodic prominence as realized by 67 per cent of the Czech speakers pose an interesting question concerning the reasons for this particular IC placement. The appropriate IC bearer is the personal pronoun *you*; even though it is generally referred to as one of the four primary referential indices (the others being *I*, *here*, and *now*) which belong to the permanently activated items in the stock of knowledge of the speaker/listener (cf. Sgall et al. 1980: 36), in the examined utterance it carries irretrievable information of contrast and as such becomes contextually disengaged (Chamonikolasová 1989). However, there is not always perfect correspondence between these pronouns (re-evaluated from thematic to rhematic elements) in English and their equivalents

in Czech. As observed by Chamonikolasová, the message carried by the re-evaluated pronouns in English may often be transmitted in other ways in Czech, e.g. by an intensification of the finite verb, possibly supplemented with a modal particle (*ibid.*).

The utterance under discussion reads *Have YOU?* and it may be best translated as *Ty ANO?*, where a different intonation centre bearer is introduced in the same, i.e. final position. Such a disagreement, in fact, “agrees” with the conclusions of Chamonikolasová (2010: 151), who maintains that in general, personal pronouns in English “enter into a relationship of contrast and selection, accompanied by nuclear accentuation, more often than personal pronouns in Czech”, where this relationship tends to be expressed by other means, compare the difference in the two languages:

DF (7)

*I've never MET/ANYONE from there before.*

DF (8)

|      |                  |   |                                |
|------|------------------|---|--------------------------------|
| Eng: | <i>Have YOU?</i> | x | <i>HAVE you?</i>               |
| Cz:  | <i>Ty ANO?</i>   | x | <i>Vážně?/ Fakt?/ Opravdu?</i> |
|      | [You HAVE?]      |   | [REALLY?]                      |

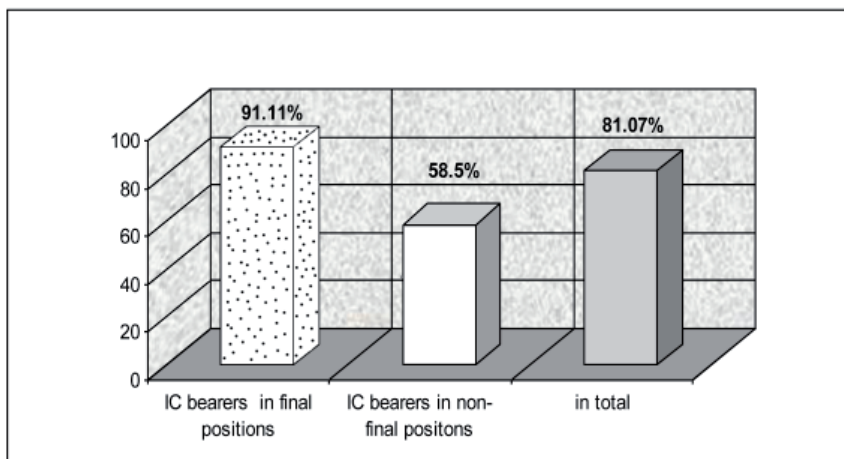
It is important to bear in mind that the declarative clause of (7) together with the question of (8) are originally part of one turn of the same speaker; should the intonation centre of DF (8) be moved to the verbal element, the question would turn into a reply question. This, however, would only be possible on the premise that the sequence of DFs (7) and (8) were split between two speakers. As such an interpretation would also involve a faulty grammatical structure of the reply question (due to disaccordant polarity of the two sentences), it is in fact necessary to dismiss the whole idea as an unsubstantiated speculation and maintain the IC placement on the element *you* as the sole appropriate option.

The fact that a vast majority of speakers in the sample (67%) assigned the most prominent prosodic feature in (8) to the verbal element *have* in the initial position is rather unexpected and somewhat difficult to account for. Still, one could assume that it is the result of an unconscious application of the stereotypical prosodic realization of tag questions and reply questions. Both types are extremely common in everyday speech due to their high level of interactiveness and therefore frequently drilled and rehearsed in class. Nevertheless, this tentative hypothesis would require further investigation of a larger sample of research material.

### 3 Conclusion

The analysis of the collected data together with their interpretation are indicative of a tendency displayed by the Czech speakers to choose an element in a sentence-final position to carry the most prominent peak. In other words, the original hypothesis can be pronounced correct as it has been verified on two complementary levels (cf. also Figure 1 below):

- (i) the Czech speakers showed best results in utterances with final IC placement, where they achieved a very high percentage of appropriate realizations;
- (ii) the Czech speakers erred frequently in utterances with non-final IC placement, where in most cases they assigned the IC inappropriately to a final element, irrespective of the semantic and contextual factors.



**Figure 1: Appropriate IC placement in the Czech speakers' utterances**

The data provide evidence of a major discrepancy between the two position-bound types of IC placement, to the disadvantage of the type with a non-final IC bearer. The influence of the speakers' mother tongue must indeed be considered as the major factor since most studies in Czech intonation refer to the stressed syllable of the last stress group as a(n) "typical" (Palková 1997), "automatized" (Daneš 1957), "neutral" (Krčmová 2007), etc. position of the IC (or sentence stress). As Daneš (1957: 141) sums up, "the intonation centre [in Czech] is always placed on the last word (stress-unit), unless it is shifted – for a special

purpose – to another word; thus the final position of the centre is automatized [...]; the last rhythm-unit of the utterance contains the rheme”.

In terms of the theory of FSP, the tendency to misplace the IC can be viewed as determined by the foregrounded linear modification factor (Headlandová Kalischová 2009b). The two languages have their word order systems operating on different principles, therefore the application of a Czech intonation pattern to an English text will very often result in an utterance where the non-prosodic distribution of CD and the prosodic realization prove incompatible. What this means is that intonation, even though one of the FSP factors, can neither support nor join in the interplay of the other three but contradicts them instead.

### Notes

<sup>1</sup> speaker 1 (female, American), speaker 2 (male, British), speaker 3 (male, British), speaker 4 (female, British)

<sup>2</sup> In the statistics provided in the table, there is one mathematical inaccuracy which could not be avoided: in DF (7) the total is 99% due to rounding the figures to whole numbers only.

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