The Pragmatic Functions of Prosody in English Cleft Sentences

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Abstract

The prosodic and pragmatic analysis of some 450 examples of clefts, taken in corpora of spontaneous and natural speech, sheds light on the different functions that prosody can take on in discourse. The prosodic analysis is mainly based on the number of tone units, the place of the nuclear syllable and the pitch movement. The context is also taken into account.

We show that clefts display a variety of prosodic patterns, which can have several pragmatic functions. The role of prosody can be to indicate the information structure of the cleft sentence (a falling tone for informative elements), to annihilate focalisation on the so-called "focus" (the focused element is deaccented) or reinforce it (with a marked tone), or to mark contrast or emphasis on the presupposed element (marked tone or tonicity).

Index Terms: prosody; discourse; pragmatic functions; syntax; prosody/discourse interface; information structure; it-clefts; wh-clefts; reverse wh-clefts; focalisation; emphasis; contrast.

1. Introduction

Cleft sentences are syntactically analysed as focusing structures in English [1][2][3]. However, focusing can also be achieved by prosodic devices (stress, intensity, lengthening of a phoneme or constituent, pitch movement…) [4][5][6]. Are syntax and prosody redundant then? This is hardly ever the case in language and the starting point of this study is the following question: what is the role of prosody in such focusing structures? Does it have anything to do with the notion of focalisation? Prosody doubtlessly also plays a part at a different level, but what part? In sum, what are the pragmatic functions of prosody in English cleft sentences? Our hypothesis is that, although the three types of clefts are very different syntactically, common prosodic patterns can be found for common pragmatic functions. In order to test our hypothesis, we have conducted two separate analyses: a discourse analysis and a prosodic analysis, which were then combined.

2. Corpus and method

2.1. Corpus

The oral component of the ICE-GB corpus [7] was used for this study. This is a corpus of spontaneous or semi-spontaneous speech. The three types of clefts have been analysed:

- IT-clefts: *It's John who broke the vase*;
- WH-clefts: *What we want is peace*;
- Reverse WH-clefts (henceforth RWH-clefts): *That's what we want.*

The RWH-clefts examined all start with *this* or *that.*

The data analysed amounts to 457 examples in total: 154 IT-clefts, 152 WH-clefts and 151 RWH-clefts.

2.2. Prosodic analysis

The prosody of cleft sentences has not been much studied. [8] [9] comment upon primary and secondary stresses and [10] analyses the number of tone units and the place of the nucleus. [11] is more precise and gives details about the number of tone units, the place of the nucleus and also the tone in a few cases. But the authors remain rather descriptive as far as prosody is concerned.

In the present study, the prosodic analysis was conducted aurally, due to the poor acoustic quality of many examples in ICE-GB. Following [12] and the British tradition, the analysis relies on tonality (the division into intonation phrases), tonicity (the place of nuclear syllables) and tones (the distinctive pitch movements).

2.2.1. Number of intonation phrases

Following [13], we consider that there is only one level of boundary, associated with the intonation phrase (IP). The IP boundaries are marked by slashes in the examples.

We coded 1 IP when there was no boundary between the first and the second element of the structure: *It was in 1906 that King Edward VII decreed*. If one or more IP boundary(ies) occurred in the second part of the structure, the coding was still 1 IP: *It was in 1906 that King Edward VII,/ the Queen's great-grandfather,/ decreed.*

We coded 2 IPs (or more) if there was a boundary after the first element of the structure: *It was in 1906 / that King Edward VII decreed.* There can be several IPs in the first part of the structure: *It was in 1906/ in May to be precise/ that King Edward VII decreed*; or several in the second part of the structure: *It was in 1906 / that King Edward VII,/ the Queen's great-grandfather,/ decreed;* or both: *It was in 1906,/ in May to be precise,/ that King Edward VII,/ the Queen's great-grandfather,/ decreed.*

Our coding differs from [11]'s as for the number of tone units, so comparisons will be difficult to make.

2.2.2. Tonic syllable

The place of the tonic syllable, the nucleus (N) is looked at. We talk about unmarked tonicity when the nucleus bears on the accented syllable of the last lexical item of the IP, and about marked tonicity when the nucleus bears on a different syllable. The tonic syllable is underlined in the examples and will be called the prosodic or intonational focus.

2.2.3. Tone

We coded F for a falling tone, R for a rising tone, FR for a falling-rising movement and HF for a high-falling tone. The tone is given at the end of the IP in the example but bears or begins on the tonic (underlined) syllable.

2.3. Discourse analysis: definitions

2.3.1. Foregrounded element and presupposition

Cleft sentences are described in the literature as "giving prominence to", "highlighting", "foregrounding" an element. This element (*John, peace* or *that* in the examples above) has received several names: it is most often referred to as the "focus" [1][2][3][14][15][16] but is also called "highlighted element" [17] or "foregrounded element" [18]. The other part of the cleft structure (the clefted clause: *who broke the vase* or *what we want*) is called the presupposition, or presupposed part [1][2][3].

Following [18], we shall call the focused constituent the foregrounded element (FE), and we shall distinguish it from the presupposition (PP) found in the clefted clause. The presupposition is defined as an open proposition (for instance *John broke x* in our first example) and the FE is a value assigned to the variable in that open proposition (*John*). The FE is given prominence by the cleft structure. The presupposition is normally taken for granted or not at issue. In WH-clefts, it has to represent information that the speaker can assume the hearer is thinking about, and thus matches the notion of old or given information [2].

2.3.2. Focalisation

Focalisation is the highlighting of a constituent which is made more salient than the other constituents through various means. One of these means is the use of a cleft structure.

2.3.3. Thematisation

We shall consider that the theme corresponds to the first constituent of the clause. It is the point of departure of the message [12] [8]. Thematisation consists in placing a constituent in first position in a clause.

2.3.4. Known, given/old, uninformative

Information is said to be old or given when it has previously been mentioned in the discourse (it is discourse-old). It is known, or hearer-old, when it corresponds to shared knowledge. These two notions are opposed to, respectively, discourse-new or hearer-new information. We shall add to these distinctions a third couple: that of "uninformative" vs. "informative" items. If an item is uninformative, it means that it is not relevant at this point of discourse. This notion sometimes matches that of old/given information, but it is not necessarily the case and we think that in certain cases it is more appropriate than the notion of old information.

3. Results: the prosody of clefts

3.1. IT-clefts

Table 1. *Prosodic patterns for IT-clefts (154 tokens)*

	IPs	Tones	% (tokens)
(1)	1	- F	19.5% (30)
(2)	1	F -	11% (17)
(3a)	2	F (N in marked position) / F	11% (17)
(3b)	2	F/F	46.7% (72)
(4)	2	FR or HF /F	11.7% (18)

In (1), the cleft is uttered with one IP and a falling tone on the second part of the structure (the PP). These are instances in which the FE is given. The PP can be given as well. In the example below, *it's the nerves that feed them* is already given, it has been mentioned just before.

(1) *So So you mean that it's the nerves that feed them F.*

Pattern (2) exemplifies clefts uttered with one IP as well, but with a focal highlighted element (*i.e.* the FE is the prosodic focus). The FE is generally contrastive and the PP is given (and not informative). The FE can be given or new. In the example below, *nasal retina* is opposed to *nasal field* earlier in the conversation and is thus given.

(2) *It's the nasal retina that that decussates F*

(3a) and (3b) display the same pattern in terms of tonality and tones, but the place of the nucleus in the FE is marked in (3a) - the nucleus does not bear on the accented syllable of the last lexical item. In both (3a) and (3b) the PP is informative and forms a separate IP.

(3a) *It's it's the second Monday F / that we get back from Easter holiday F*

(3b) *It was in nineteen hundred and six F / that the Queen's great-grandfather King Edward the Seventh decreed F /*

The pattern shown in (3b) is the most common in the corpus: 46.7%.

In (4), tonality and tonicity are the same as in (3a) and (3b) but the tones are different: falling-rising or high-falling tones are found on the FE. The PP is either informative or not.

(4) *It was the gauge HF/ that was the killer in the first place F*

3.2. WH-clefts

Table 2. *Prosodic patterns for WH-clefts (152 tokens)*

	IPs	Tones	% (tokens)
(5)	1	- F	8% (12)
(6a)	2	R/F	5.5% (8)
(6b)	2	F/F	49.3% (75)
(7a)	2	FR/F	28.3% (43)
(7b)	2	FR (N in marked position)/F	9% (14)

As IT-clefts exemplified by (2), WH-clefts can be pronounced with one IP and the intonational focus on the FE, with a falling tone. This is what we have in (5). Such a pattern is rather rare (8%), and found only with short IPs. There is no relevant information in the PP, in which only a restricted number of verbs can appear (*mean, happen, do…*).

(5) *What you have to do is maybe check F*

In (6a) and (6b), the WH-cleft is divided into two IPs and the tones are either a rise (6a) or a fall (6b) on the FE and a fall on the PP. The (6a) pattern is not very common and mostly found in sports commentaries (6a'), courses and sentences in which we find an interpolated clause (6a'').

(6a') *because of course/ it's those higher standards R / that we are going to require in the future F*

(6a'') *what we will be seeing very shortly R / on April 1st to be precise R / is the advent of all sorts of changes within the NHS F /*

The IP boundary in the (6b) pattern is in 89% of the cases before *be*, as in the example below:

(6b) *what I'm saying F / is that they're not going to be covering the windows F*

In the (6b) type, the PP is always informative. In this example, the speaker has been misunderstood by the hearer and insists: *what I'm saying*. (6b) corresponds to the most widely spread pattern for WH-clefts (49.3%).

In (7a) and (7b) the tone changes on the PP. It's a falling-rising tone with unmarked tonicity as in (7a) or marked tonicity in (7b). The PP is uninformative and, as in (5) above, mainly contains verbs which bear little semantic content (*do, happen, mean, say…*).

(7a) *what happened is uh FR / they caught her without a licence F*

(7b) *What I want FR / is some new people FR / telling me some new lies F*

3.3. Reverse WH-clefts

Table 3. *Prosodic patterns for RWH-clefts (151 tokens)*

	IPs	Tones	% (tokens)
(8a)	1	- F	80% (121)
(8b)	1	- HF or - FR	16% (24)
(9a)	1	F -	2% (3)
(9b)	1	FR - or HF-	2% (3)

The main pattern for RWH-clefts is one IP with the nucleus at the end of the IP, *i.e.* in the PP, and a falling tone, as in (8a) below. The prosodic focus does not fall on the FE. In (8b), the tone is different but tonality and tonicity are the same. We can either have a falling-rising or a high-falling tone on the nucleus (in the PP). These 2 patterns represent 96% of the tokens.

(8a) *Mm that's what I'm talking about F*

(8b) *That is what unites us HF.*

Only 4% are uttered with a nuclear accent on *this/that.* They are contrastive. The tone on *this/that* can either be neutral, a fall (exemplified in (9a)), or non-neutral, FR or HF as in (9b):

(9a) *That's what it was wasn't it really F*

(9b) *That's what people said to me when I became Chief Secretary some years ago FR*

4. Discussion: the pragmatic functions of prosody

4.1. Marking FE as informative and PP as uninformative

In a certain number of cleft constructions which are commonly named "unmarked clefts", that is whose function is to highlight an element (the FE) which is new information, the prosody can then be said to be unmarked as well, in the sense that it follows the syntax: there is one IP and the highlighted element of the structure bears the prosodic focus: F- for IT-clefts and RWH-clefts, -F for WH-clefts. The PP does not form a separate IP, it is deaccented, and the tone on the FE is neutral (we have a falling tone on the nucleus). The prosody marks the FE as informative and the PP as uninformative. This is the pattern found in (2), (5) and (9a). With WH-clefts, the R/F pattern (with two IPs and a rising tone in the first part of the structure) also takes on the same value, as in (6a): indeed, a rising tone is usually used for minor information ([19:72]). The PP is therefore not important and the chunking is due to the length of the sentence or to an interpolated clause as in (6a'').

It is important to note here that for each type of cleft, this is not the most common pattern, far from it. This pattern only represents 11%, 13.5% and 2% for the three types of clefts (IT-, WH- and RWH-) respectively. We can therefore affirm that the so-called unmarked type of clefts is in fact quite rare in discourse.

This pragmatic category includes contrastive foci in IT-clefts, but here the contrast is not highlighted prosodically by a marked tonicity (*cf.* [11:155]) or by a non neutral tone (HF or FR).

4.2. Marking the FE and the PP as informative

The prosody can also mark both the FE and the PP as informative by the use of two IPs with a falling tone in each of them (F/F). A falling tone is indeed typically used to express a major information ([19:72], [20:81]), and this is what the speaker does when s/he uses a cleft with the pattern F/F, making the part which is supposed to be the presupposition relevant information. This is what we find in (3b) with IT-clefts, where the F/F pattern indicates that both parts of the sentence are important information. We call these all-informative IT-clefts and they represent 46.7% of the corpus. This pattern is also found in 49.3% of WH-clefts, as in (6b), as opposed to (6a) where the rising tone does not assess the PP as informative.

4.3. Reinforcing focalisation on FE

If the tone is a non neutral tone, such as a high-falling or a falling-rising tone, then the syntactic focalisation is reinforced by prosody: the speaker either marks a particular prosodic emphasis on the FE or enhances the contrast by a prosodic means. This is what we have for RWH-clefts in (9b), with the pattern FR- or HF-. In IT-clefts and WH-clefts, prosody may also reinforce the focalisation on the FE by separating the sentence into two IPs, with a non-neutral tone on the FE or the PP. For IT-clefts, the FR or HF tone falls on the FE (FR or HF/F), as in (4). The FR or HF tone then marks contrast or emphasis on the element bearing the tone. For WH-clefts, the FR tone is on the contrary on the PP (which corresponds to the first IP: FR/F), and it is used to attract the attention on the following part, that is the highlighted element ([20:73] explains that a fall-rise tone "announces the topic and draws attention to it"). This is the case in (7a).

A prosody reinforcing focalisation (which amounts in the case of IT-clefts to using an emphatic or contrastive tone) is found in 11.7% of the analysed IT-clefts, 28.3% of WH-clefts and 2% of the RWH-clefts.

4.4. Annihilating focalisation on FE

In quite a large number of tokens, the highlighted element of the cleft structure is not the intonational focus. The FE can be said to be deaccented. This is what we find in 80% of the RWH-clefts, as in (8a). In this structure, the prosody is one indication, among others (*cf.* [21]), that the initial pronoun is actually not focused but rather thematised (*pace* [8]). These cleft sentences are usually used for stylistic means of recapitulation, transition or topic-marking. The function of recapitulation is generally not assigned to IT-clefts in the literature, and yet example (1) is a clear case of recapitulation.

The fact that *the nerves feed them* has just been mentioned before in the conversation, and the neutral prosodic pattern (one IP and the nucleus on the last lexical item of the IP, that is the PP here: -F) indicate that the function of the cleft structure here is not to highlight *the nerves*. In a way, we can say that prosody contradicts the supposed focalisation of the FE.

What is interesting in these examples of IT-clefts is that the neutral prosody plays the pragmatic function of marking the FE, which is canonically new, as uninformative, since it is not the prosodic focus. 19.5% of the IT-clefts analysed display this pattern. This function is absent in the RWH-clefts analysed for this study.

4.5. Marking contrast or emphasis in the PP

Marking contrast or emphasis (greater involvement from the speaker) through a non neutral tone (HF or FR) is a well-known function of prosody in general ([5][19][22]). This is what we have in 16% of the RWH-clefts analysed, as shown in (8b) and 9% of WH-clefts as in (7b). In IT-clefts, there are also occurrences in which an element of the PP is highlighted. It is in most cases highlighted by a marked tonicity but the tone is neutral (F), as in (3a). This pattern represents 11% of the IT-clefts studied. We found only one example (a sports commentary) of an IT-cleft with an emphatic HF tone on the PP, which is insignificant. We have no example of a contrastive tone (FR) on the PP with IT-clefts.

5. Conclusions

Where syntax is used to differentiate between foregrounded element and presupposition, prosody can play a part at three different levels in cleft sentences. First, it can indicate the information structure of the cleft by telling us what is uninformative/informative. That's what we find for instance with a deaccented PP in IT-clefts (F-). Secondly, it can play a part at the level of focalisation, either by indicating that the so-called focus is in fact not a focus (as in RWH-clefts: -F), or on the contrary by enhancing the focalisation of the FE (for instance with an FR tone announcing what follows in WH-clefts). Finally, it can mark contrast or emphasis (with marked tonicity, or an HF or FR tone) in the PP or, in IT-clefts, underline the contrast on the FE by the same means.

Table 4. *Pragmatic functions of prosody in English cleft sentences*

Pragmatic functions of prosody	IT-	WH-	RWH-
Information structure:			
FE inf., PP uninf.	11%	13.5%	2%
FE and PP inf.	46.7%	49.3%	-
Focalisation:			
Enhancing foc.	11.7%	28.3%	2%
Annihilating foc.	19.5%	-	80%
Contrast/emphasis on PP	11%	9%	16%

By listing the pragmatic functions of prosody in English clefts, the table above enables us to revisit the traditional unmarked/marked categories that we find in the literature. The so-called unmarked clefts (FE new or contrastive and PP given) are actually not the most commonly found in discourse. This is not surprising since in discourse, contrastiveness can be expressed by prosody alone and there is no real need for the cleft structure. This is also the reason why such cleft sentences are more frequent in a written corpus than in an oral corpus. So we can say that from the point of view of their frequency in discourse, these so-called unmarked clefts are in fact marked structures. For RWH-clefts the unmarked ones are rather those in which the initial pronoun is not focused but only thematised. And the unmarked IT- and WH- clefts are rather the all-informative ones, in which the two parts of the structure contain relevant information: this is revealed by the association between syntax and prosody.

6. References

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