

## THE PROSODY AND SYNTAX OF INFORMATION STRUCTURE IN MALAYALAM AND MALAYALAM ENGLISH

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### Abstract

This paper examines the syntactic and prosodic encoding mechanisms of Information Structure in Malayalam and Malayalam English. The paper attempts to answer the following questions:

- What are the prosodic and syntactic means of focussing in Malayalam?
- Is there any prosodic transfer from Malayalam L1 to English L2?
- If Malayalam is a non-plastic language, how is ‘givenness’ expressed in Malayalam English?
- Do Malayalam English speakers employ the same strategy to denote ‘Givenness’ as observed by Southern British English speakers(SBE)?
- Is there inconsistency in terms of adopting prosodic cues to highlight information structure, which is indicative of a developmental stage?
- Can naturalistic data be profitably used to investigate focus at the syntax-prosody interface?

Naturalistic data was collected from 3 speakers of Malayalam English, who were given a topic to debate on. This was compared to the speech of 3 native speakers of English. The long audio files were segmented and annotated in PRAAT (Boersma & Weenink 2014), indicating the syntactic strategy, type of focus and prosodic phrasing. Results indicated that Malayalam, being a non-plastic language, retains its preference for clefting and left alignment in the L2 English speech as it does in Malayalam.

***Keywords: plastic vs. non-plastic languages, givenness vs. new, deaccentuation, prosodic transfer from L1 to L2, naturalistic data, types of clefting, left alignment***

## 1.0. Introduction

Languages of the world have been broadly classified under two heads- *plastic* and *non-plastic* (Vallduvi 1991) based on the mechanisms used to mark new and given information in discourse. Plastic languages mark new and given information prosodically with a marked pitch accent on new information and with an absence of pitch accent on given information (i.e. deaccentuation).

1. A. Would you like some CHOCOLATE?

B. No thanks, I don't EAT chocolate. (Avasani and Vayra 2005)

Research has shown that *non-plastic languages* (for e.g. Italian or Spanish), on the other hand, encode information status by syntactic means and generally, tend to resist the deaccentuation of given referents (Cruttenden 1993, Avasani and Vayra 2005). The syntactic mechanisms involved are focus fronting or clefting. However, in recent times, empirical studies do not fully agree with a neat binary division of this kind and have shown that *non-plastic languages* could resort to both word order variations as well as intonation depending on the constituent that is focussed (subject or object, cf. Büring & Gutierrez-Bravo 2001, Zubizarreta 1998) and the focus type (information and contrastive focus, cf. Andez-Soriano 2013, Gabriel et al 2009, Vanrell & Fern, Dufter 2009).

In this paper, we examine the prosodic and syntactic mechanisms of focussing in the Dravidian language, Malayalam and also compare it to Malayalam English to see if there is any prosodic transfer from L1 to L2.

## **2.0. Information Structure of Malayalam**

Malayalam is one of the four major Dravidian languages of southern India and is spoken in the state of Kerala. It has approximately 38 million speakers worldwide. It is a Nominative – Accusative language with a SOV word order. Féry (2010) noted the following regarding Malayalam:

“Prosody may not play a very important role in the expression of information structure. Malayalam has at least two strategies for the expression of focus: suffixation of a focus particle and change of word order.” (Féry (2010:308))

However, recent studies show that the language employs both syntactic and prosodic strategies to mark focus. An examination of how these strategies are realized, the environment in which the strategies occur and the functions they meet in the language would hence help us to make observations that can contribute to the existing theoretical frameworks regarding focus marking. The following section will briefly discuss the syntactic and prosodic strategies that exist in Malayalam to mark focus.

### **2.1. Syntactic Means of Marking Focus**

#### **A. Clefting**

Malayalam employs syntactic marking of focus as it can be clearly seen in wh-phrases and clefting and pseudo-clefting. The examples below illustrate this phenomenon and are taken from Jayaseelan (2004) and Madhavan (1987).

2. **kutti** aaNə aanaye nulliyatə

Child-NOM is elephant-ACC pinch PAST

‘It is child who pinched the elephant’ (Madhavan 1987, p.13)

3. Njan dharichirikkunn-awa **puthiya wasthraṅṅal** aaNə

I-NOM wear. Pr. Prog- a[+neut new clothes ar +pl]

‘What I am wearing are new clothes’ (Madhavan 1987, p.105)

4. **aarə** aaNə ninne talli(y)atə

Who copula you-ACC hit-PAST Nominalizer

‘Who is it that hit you’ (Jayaseelan 2004, p.7)

In the examples given above, sentence (2) shows clefting in Malayalam to mark focus. Sentences (3) and (4) show movement for focus in pseudo clefts and Wh phrases respectively. Madhavan (1987) analyses structures like (2) and (3) as having a bipartite structure: with first part consisting of the focus (here, ‘child) and the copula (here, aaNə) and the second part consisting of the presupposition part. This structure is similar to that of cleft constructions in English except for the presence of a pleonastic ‘it’ in the latter constructions. Madhavan (1987) however points out that the order of elements in Malayalam in cleft constructions is not as rigid as that of English. He uses the following sentences to support his observation.

5. aanaye            nulliyatə    **kutti**    aaNə  
elephant-ACC    pinch PAST    Child-NOM    is  
'It is child who pinched the elephant'
6. aanaye            **kutti**    aaNə    nulliyatə  
elephant-ACC    Child-NOM    is    pinch PAST  
'It is child who pinched the elephant'
7. \***kutti**    aanaye            nulliyatə    aaNə  
Child    elephant-ACC    pinch-PAST    is
8. kutti    **aanaye**    aaNə    nulliyatə  
Child    elephant-ACC    is    pinch-PAST
9. \***aanaye**    aaNə    nulliyatə    kutti  
Elephant-ACC    is    pinch-PAST    child

The author rightly notes that in cleft constructions, the restriction is that the focus and the copula occur together (sentences (5) and (6)). When this restriction is violated, the sentence becomes either ungrammatical (sentences (7) and (9)) or yields a different interpretation (sentence 8). With respect to this observation, Madhavan (1987) suggests that 'aaNə' can be considered as a focus marker (FM) in Malayalam.

#### B. Scrambling

The second mechanism used to signal contrastive focus in Malayalam is scrambling the focused constituent to the pre-verbal position. Jayaseelan (2004) notes, that Malayalam has movement of the wh-phrase in constituent questions to the position immediately to the left of V (Verb).

‘It appears to be now generally acknowledged that in OV languages, the position to the immediate left of V is a Focus position; it has been so characterized in German, for example (Fanselow 2001:409). What these languages do then can be seen as moving their *wh*-phrases into an IP-internal Focus position, instead of into COMP.

(1) a. nin-ne aarə talli ?

you-acc. who beat(Past)

‘Who beat you?’

b. \*aarə nin-ne talli ?

who you-acc. beat(Past)

(2) a. awan ewiDe pooyi ?

he where went

‘Where did he go?’

b. \*ewiDe awan pooyi ?

where he went

(3) a. nin-akkə ii pustakam aarə tannu ?

you-dat. this book who gave

‘Who gave you this book?’

b. \*aarə nin-akkə ii pustakam tannu ?

who you-dat. this book gave

(The ‘canonical’ order of the verb and its arguments in Malayalam is: ‘Subject – Indirect Object - Direct Object - V’, i.e. the order in (3b).)’ Jayaseelan (2004: 6)

According to Jayaseelan, the *wh*-phrase *in situ* is ungrammatical. The question that arises is if Malayalam is a ‘true’ non-plastic language that uses only syntactic means of focussing and desists deaccentuation of post-focal material. Recent studies have disputed this.

## 2.2. *In-situ* Focus: Prosodic Focus

Though not a prominent one, another strategy used to mark focus in Malayalam is a prosodic means of marking focus. If there is no syntactic movement, there is prosodic assignment of stress in Malayalam.

### 10. **patti** kurachu

dog barked

‘The dog barked.’

### 11. **naduvu** vedanikku nnu

back ache

‘(my) back hurts.’

### 12. **aarə** aapil kazhuchu?

Who (nom) apple eat past?

‘Who ate the apple?’

### 13. **Njaan** Apple kazhuchu

I-nom Apple eat-past

‘I (Focus) ate an apple’.

Moreover, Kidwai and Sanyal (2011) reveal that information focus is marked prosodically in Malayalam and clefting (that leads to pitch compression) is used for exhaustive identification or contrastive focus.

Kidwai and Sanyal (2011) talk about focus alignment and different focus types in Malayalam. They note that the left edge in Malayalam has pragmatic salience, a presupposition interpretation and phonologically surfaces with invariably a LH pitch pattern which can also encode new information focus. The right edge, on the other hand, has a falling L tone in declaratives.

They also mention that information focus in Malayalam is marked phonologically and is not restricted to the preverbal position. The syntactic rule of clefting, they observe, involves syntactic raising to focus position, which is the syntactic marking, and is marked phonologically with pitch compression in PF.

Nagarajan and George (2017) observed that prosodic focus was preferred:

- in intransitives (which could be taken as pre-verbal as well)
- in monotransitives, when the sentences consisted of just 3 words

It was **not** preferred in ditransitives. Moreover, length of utterance and speech rate were crucial factors in the use of focussing mechanisms in Malayalam. Hence, they concluded that clefts are employed to create a separate minor phrase so that stressed constituents are left aligned to the minor phrase (as in French (Hamlaoui (2007)))

Thus, in a nutshell, it can be said that both syntactic and prosodic means of marking focus co-exist in the language although the former is the dominant one. The main task in the pilot study

conducted was to investigate the focus mechanisms used by speakers of Malayalam English, identify the preferred one and provide reasons for it.

### **3.0. The present study: Information Structure of Malayalam English**

The primary aim of our study was to check if there was any prosodic transfer from the L1, i.e. Malayalam to their L2, i.e. Malayalam English. Secondly, if Malayalam is a non-plastic language, how is ‘givenness’ expressed in Malayalam English? Do Malayalam English speakers employ the same strategy to denote ‘Givenness’ as observed by Southern British English speakers (SBE)? Is there inconsistency in terms of adopting prosodic cues to highlight information structure, which is indicative of a developmental stage? The study also aims at testing if naturalistic data could be profitably used to investigate focus at the syntax-prosody interface.

#### **3.1. Methodology**

The variety of English used for investigation in our study was Malayalam English. Naturalistic data was collected from 3 male participants (all speakers of Malayalam English and of the same age group (28-35) and background (IT professionals working in Bengaluru), who were given a topic to debate on (Who is a better actor: Mohanlal or Mammooty?). This was recorded on a voice recorder and the long audio files were segmented and annotated in PRAAT (Boersma and Weenink 2014).

This was compared to the speech of 3 male native speakers debating on a similar topic (Who is a better player: Messi or Ronaldo?), the source of which was ESPN FC: Pundits on who’s the better player Lionel Messi or Ronaldo(R9) Published on Apr 26, 2017. This data was extracted and analyzed.

This approach was unlike most current work on focus which is based on sentences just read or elicited in response to highly standardized and often somewhat artificial stimuli. Secondly, language used in a natural context provided a more naturalistic setting for use of different types of focus (information, contrastive, corrective etc.). Leech (2000) stresses the importance of naturalistic data/ conversational grammar as:

- conversational grammar reflects a shared context;
- conversational grammar avoids elaboration or specification of reference;
- conversational grammar is interactive grammar;
- conversational grammar highlights affective content: personal feelings and attitudes;
- conversational grammar has a restricted and repetitive lexicogrammatical repertoire;
- conversational grammar is adapted to the needs of real-time processing.

Leech (2000)

The long audio files were segmented and annotated in PRAAT (Boersma and Weenink 1996), indicating the syntactic strategy, type of focus and prosodic phrasing. The pitch patterns were analyzed using ToBI. The study was a pilot one and there were the following limitations:

- (i) Lack of experimental control that is inherent in naturalistic data
- (ii) Unequal/ biased quantities

### **3.2. Observations**

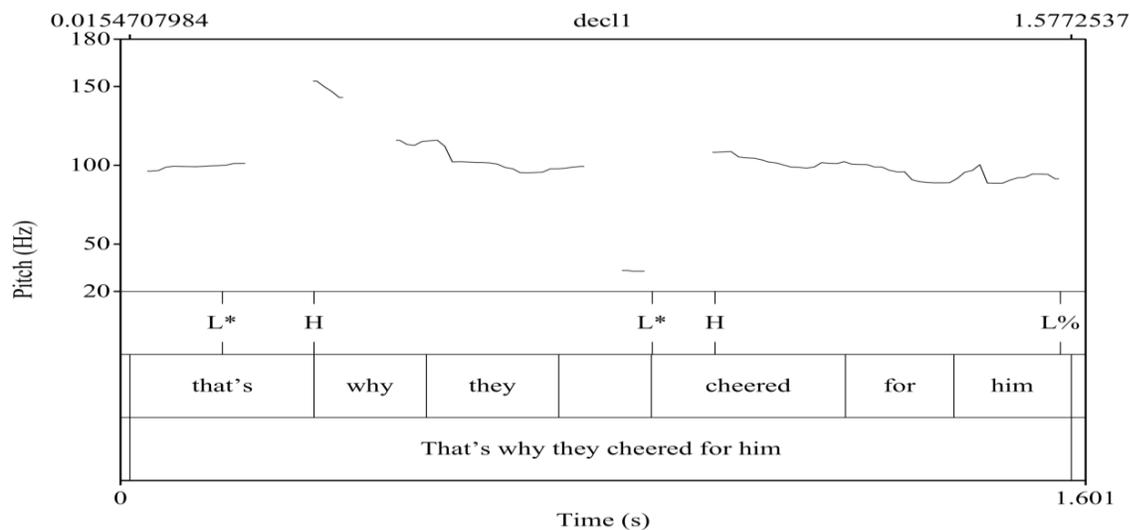
A detailed analysis of the data revealed the following:

### 3.2.1. Use of Syntactic Devices

The Malayalam English data showed the use of different types of clefts to mark contrastive focus.

- (i) Demonstrative clefts: e.g. That’s why they cheered for him.

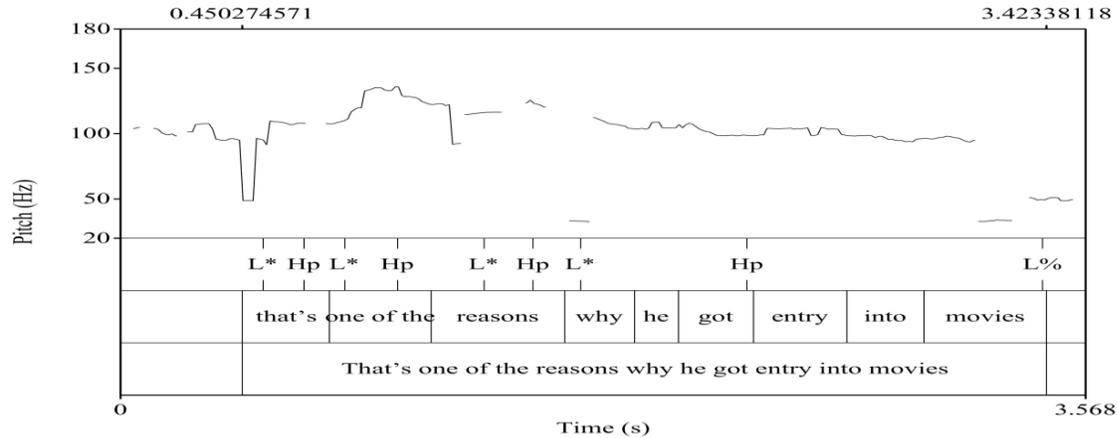
Demonstrative Clefts are clefts that are introduced by a demonstrative pronoun, and followed by a copula. The cleft clause is introduced by a wh-word and has a subject pronoun. The verb in the cleft clause expresses physical action and if there is focal stress, it falls on the cleft construction e.g. ‘THAT’S what I thought.’ (Calude 2008)



- (ii) Th-clefts: e.g. That’s one of the reasons why he got entry into movies.

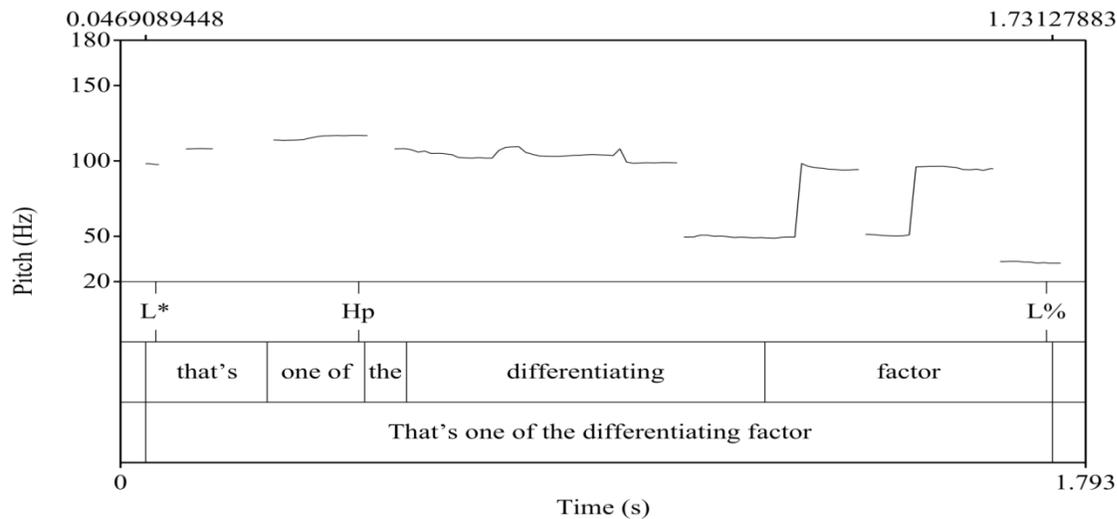
Th-clefts are introduced by a demonstrative pronoun, followed by a copula. This is **followed by a definite noun phrase like ‘the reason, the one, the thing, the place, the time etc.’**

and then, a relative clause. In wh-clefts, the word preceding the relative clause begins with ‘wh’ but in th-clefts, it begins with ‘th’ (Collins 1991)



(iii) Truncated clefts: e.g. That's one of the differentiating factor.

Truncated clefts are introduced by either 'it/they'. They look like clefts minus the cleft clause. In truncated clefts, the pronoun is anaphoric to (non-)linguistic context and in a cleft clause, it is cataphoric to cleft clause (Mikkelsen 2005).



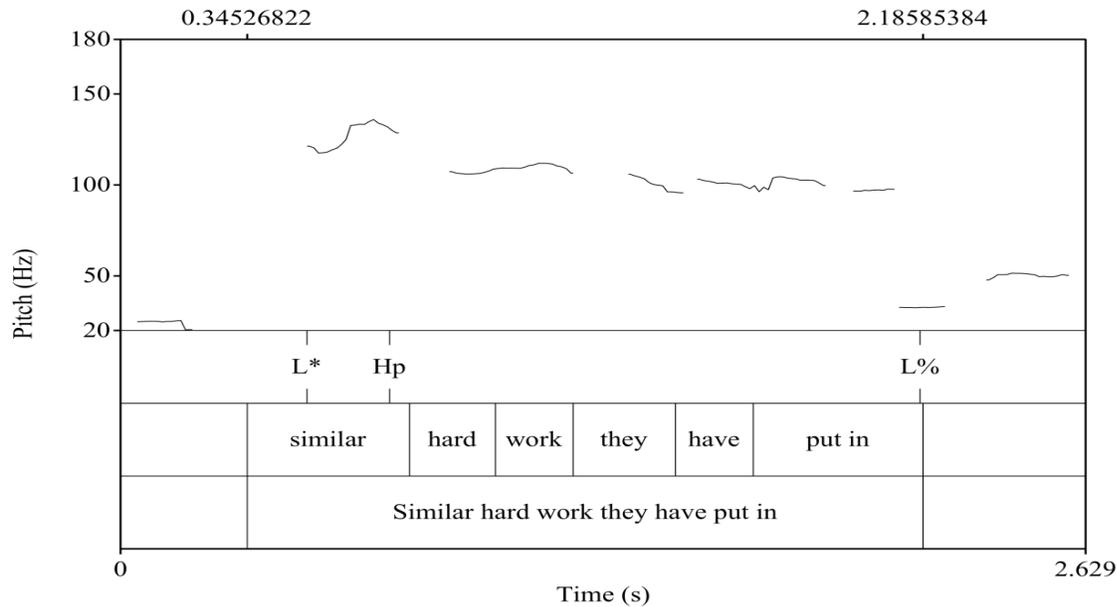
(iv). Wh-clefts: e.g. What made him Sachin Tendulkar not just his natural gift.

Wh-clefts are introduced by a wh-clause, followed by a copula and then, the cleft phrase, i.e. +focus



Apart from the various types of clefts noted above, another syntactic device that was used was Focus Fronting: e.g. Similar hard work they have put in.

In Focus Fronting, a focussed constituent is fronted to the left periphery from its original position. Here, the object is focussed and is fronted to the left periphery/edge.



### 3.2.2. Use of Focus markers

Speakers of Malayalam English also used morphological devices like use of focus markers, *even*, *still* and *just*.

#### Sample sentences:

- a. One of the reason why people **still** call him a great actor or a good actor is that **even** in the stupidest movies he single-handedly lifts or drives the movie.
- b. **Even** in a stupid movie like that recent one forgot the name where he plays a cop retired cop aa Villain you feel that the movie could have been a lot better.

- c. Despite a poorly written script and everything he **still** delivers the pain of a retired police officer.
- d. There are **still** things that he delivers. **Even** in stupidly crafted movies.
- e. when people say Mohanlal **still** is a great actor and Mammooty may not be that much.
- f. ...you can **still** feel Mammooty as Mammooty here.

*Even* was used 4 times, *still* 5 times and *just* 2 times.

### 3.2.3. Givenness in Malayalam English

‘Givenness’ is marked in English by ‘deaccentuation’ and ‘shorter vowel length of the given referent’. A comparison of the vowel length of ‘given’ referents in ‘SBE’ and ‘Malayalam English’ would answer the following questions:

- (i) Do Malayalam English speakers use ‘deaccentuation’ and ‘vowel shortening’ as prosodic correlates of ‘givenness’ like in SBE?
- (ii) Is there inconsistency in terms of adopting prosodic cues to highlight information structure, which is representative of a developmental stage?
- (iii) Is there prosodic transfer from L1 to L2?

Study of native French speakers learning Dutch (Non-plastic and Plastic languages respectively) reveals a high degree of prosodic transfer of L1 French accentuation strategies in L2 Dutch Speech (Raiser and Hiligsmann 2009). L1 transfer in other L2 prosodic features, such as duration and Pitch accent distribution has also been attested in works by Lepetit 1989 and Ueyama 2000.

The results of the above mentioned studies indicate that the acquisition of plastic prosodic strategies is problematic for native speakers of non-plastic languages.

The following table illustrates the duration of ‘given’ information:

**Table 1: Comparison of duration in ‘given’ information (the variables of discourse proximity and syntactic category were kept constant)**

**Vowel Duration in SBE**

Speaker 1	Speaker 2	Speaker 3
peak	best	best
Occurrence 1: 386 ms	Occurrence 1: 389 ms	Occurrence 1: 373 ms
Occurrence 2: 279 ms	Occurrence 2: 302 ms	Occurrence 2: 246 ms

**Vowel Duration in Malayalam English**

Speaker 1	Speaker 2	Speaker 3
actor	Jeyan	skill
Occurrence 1: 294 ms	Occurrence 1: 454 ms	Occurrence 1: 278 ms
Occurrence 2: 251 ms	Occurrence 2: 364 ms	Occurrence 2: 428 ms

cop		
Occurrence 1: 373 ms		
Occurrence 2: 381 ms		
movie		
Occurrence 1: 763 ms		
Occurrence 2: 477 ms		

The vowel duration given above, shows that Malayalam English speakers are not consistent in shortening the vowel and deaccentuating the ‘given’ referent, while SBE speakers do show ‘deaccentuation’ and ‘shortening’ systematically.

### **3.2.4. Irregular chunking or phrasing pattern**

The next feature that we studied was the phonological phrasing patterns in Malayalam English and compared them to SBE.

The following were the characteristics of Malayalam English prosody:

#### **Irregular phrasing pattern**

- a. phrase break after determiners

e.g. // That's one of the / differentiating factor //

// That's / one of the / reasons/ why he got / entry into movies //

b. syntax-prosody misalignment

e.g. // That's why they / cheered for him //

// Similar / hard work / they have / put in //

// What / made him / Sachin Tendulkar // not // just his natural gift //

/ There are / still things / that he / delivers //

c. no auxiliary reduction

e.g. //It is all // more about the / passion / rather than skills //

**Frequent breaks and pauses within a sentence.**

e.g. // Even // in a / stupid movie // like that / recent one // aaa /

**4.0. Discussion and Conclusion**

The pilot study clearly indicated a preference for the syntactic mechanism of clefting to mark contrastive focus in Malayalam English. The interesting aspect was the use of a variety of cleft constructions, not all of which have been documented in previous studies. An overall preference for clefting (demonstrative, th-, truncated, wh- rather than It-cleft) and irregular prosodic phrasing and accentuation was observed in the Malayalam English data.

Malayalam is a relatively free word-order language, which is left aligned. Clefted constructions are used frequently to denote contrastive focus. As per Fery's (2013) classification of languages,

as either FA (Focus as Alignment) or FP (Focus as Prominence), Malayalam can be classified as a FA language, where a focussed constituent is aligned with the left edge, whereas English is a Focus-Prominence language (FP).

Fery (2013) classifies the languages of the world as either FA or FP based on their prosodic features. She notes that focus is universally left or right aligned prosodically and that alignment and prominence should be treated as two separate phenomena. This is because not all languages associate focus with prominence, but all languages try to align focus prosodically. Alignment may be obtained in the absence of prominence. Conversely, prominence can be present without alignment. In FA languages, a focused constituent may be just aligned, with no other acoustic cue and in FP languages, acoustic prominence is added to the focus. In so-called scrambling languages, syntactic constituents may be arranged in different ways inside a single  $\iota$ -phrase, and these languages may use this property to align focus with the edge of an  $\iota$ -phrase or use a cleft construction.

A close examination of Malayalam English shows that it follows the principle of left alignment as in Malayalam. Hence, syntactic mechanisms like clefting and focus fronting are used to place the focussed constituent at the left edge.

Malayalam, being a non-plastic language, retains its preference for clefting and left alignment in the L2 English speech too. The results of various L2 acquisition studies (Raiser and Hiligsmann 2009, Lepetit 1989 and Ueyama 2000) indicate that the acquisition of plastic prosodic strategies is problematic for native speakers of non-plastic languages due to this difference of being an FA or FP language. It is to be noted that these findings are preliminary and tentative. A larger corpus of data needs to be studied to corroborate these findings.

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