

# The Phonology of Contrastive Focus in Standard Colloquial Assamese

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## 1 Introduction

The present study investigates how Standard Colloquial Assamese (henceforth SCA) underlines contrastive focus (henceforth CF) phonologically, and what are the phonetic cues it employs in doing so. Assamese belongs to the Eastern Indo-Aryan language area of the Indo European language family (Goswami, 1982; Goswami & Tamuli, 2003) with SOV as the canonical word order. SCA variety is mostly spoken in the eastern districts of Assam: Tinsukia, Dibrugarh, Lakhimpur, Dhemaji, Sibsagar, Jorhat, Golaghat and Sonitpur (Moral, 1992).

The present paper has been arranged into five sections: first section (§2) elaborates CF and the perspective in which the concept has been used in this paper, the second section (§3) deals with the post-lexical prosody of SCA. Subsequently in the next section (§4) phonological manifestation of CF in SCA has been explained. The following section (§5) concentrates on how cross-linguistically attested phonetic correlates of CF such as pitch and duration values interact with CF in SCA. Finally the conclusion (§6) consolidates the entire discussion with respect to the findings of the present study.

## 2 Contrastive Focus (CF)

CF has been considered the strongest type of focus ‘as the speaker asserts something which may contradict the expectations of the hearer’ (Féry, 2013). It has been described variously as identificational focus (Kiss, 1998), alternatives focus (Rooth, 1992) and contrastive focus (Selkirk, 2002; Zubizarreta, 1998; Kratzer, 2004). Although CF has been differentiated from the instances of focus created out of correction (Tomioka, 2009; Zimmermann & Onea, 2011), in this chapter both types of foci will be treated interchangeably as both of them generate a set of alternatives out of which the focused alternant receives contrastive focus (Rooth, 1992; Vallduví & Vilkuna, 1998; Kiss, 1998).

Rooth (1992) defines CF in terms of a set of alternatives; for her when a constituent receives CF it generates a set of alternatives which constitutes its focused meaning. This alternatives set includes the ordinary meaning of the focused constituent within its focused meaning. In (1) when *Romen* is focused it creates an alternatives set of ordinary meanings: [Romen killed the cat, Ram killed the cat, Shyam killed the cat, etc.] of which the focused meaning is also a part. It is this alternatives set which differentiates a focused constituent from non-focused ones: constituents which are not focused do not generate an alternative set of meanings (Rooth, 1992; 1997).

- (1) A. Ram killed the cat.  
B. No, Ramen killed the cat.

According to Zubizarreta (1998), CF makes its realisation in relation to the context; it is the preceding statement which provides the context for CF. Zubizarreta talked about two-fold function of contrastive focus: apart from negating “the value assigned to a variable” in the preceding statement, contrastive focus provides an alternate value for the variable. In the following example, the context for contrastive focus is created by (2A), and (2B) which bears contrastive focus on *Red* performs two simultaneous functions: first it negates *John is wearing a blue shirt today* i.e. John is not wearing a blue shirt today, and second it induces an alternate value for the constituent which has been negated, here it is *Red* which is introduced in contrast to *blue* in the previous context statement: *Ram is wearing a red shirt today*.

- (2) A. John is wearing a blue shirt today.  
B. John is wearing a Red shirt today (not a blue shirt).

From the cross-linguistic literature it is apparent that while some languages employ phonological and phonetic cues in order to mark focus, some others rely solely upon phonetic correlates. Languages like English (Silverman & Pierrehumbert, 1990), German (Féry, 1993; Féry & Kügler, 2008), Dutch (Gussenhoven, 1983), Bengali (Hayes & Lahiri, 1991) and Korean (Jun & Lee, 1998) phonologically distinguish contrastive focus from broad or wide focus (henceforth WF). In these languages CF is marked by either placing sentential or nuclear accent<sup>1</sup> on the focused constituent or by demarcating a prosodic boundary after focus or both. For example, in English the tonal pattern of a sentence changes with focus change: the nuclear or sentence stress falls on the most prominent word or constituent within the IP and the post-focus constituents undergo de-accenting. There are other languages like French (Féry, et al., 2010) and Bengali (Hayes & Lahiri, 1991) where focus exercises a demarcating function at the phrase boundary of the focused constituent.

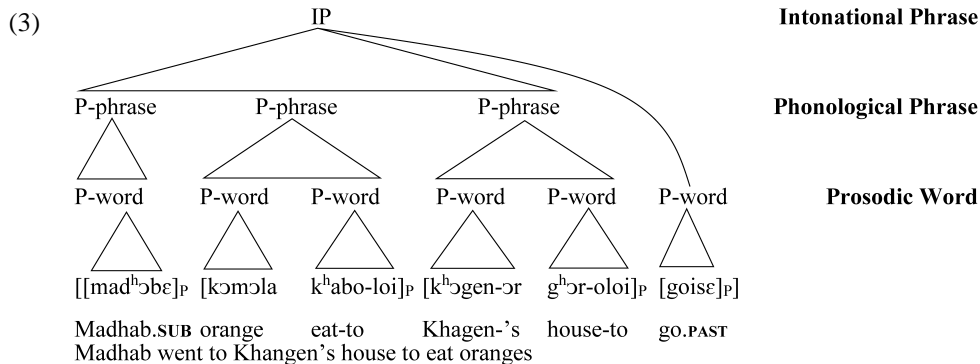
The above discussed languages employ pitch accents and phrasing in a phonologically significant way in order to highlight the focused status of a constituent. However, there are languages like Romanian (Manolescu, et al., 2009), Catalan (Borras-Comes, et al., 2014), Spanish (Prieto, 2004) where greater pitch movement, longer duration and larger pitch range mark CF. These languages advocate for the inevitability of Pitch range to be included in the phonological representation. In these languages, as has been revealed by results of the perception experiments undertaken in the referred studies, pitch range is employed in a categorically distinct manner in contradiction to the traditional view (Pierrehumbert, 1980; Beckman & Pierrehumbert, 1986) which holds that pitch range is gradient and beyond the scope of phonology.

In case of SCA, CF is marked by phonological phrasing, post-focus compression and increased pitch range. A constituent which receives CF forms a phonological phrase (henceforth P-phrase) overriding the syntactic rules of phrasing, and all the constituents following the focused constituent undergo a F<sub>0</sub> compression. In this variety it has been observed that a focused constituent is marked with higher pitch range value.

### 3 Post-lexical Prosody of SCA

Assamese, like most other South Asian languages (Bengali (Hayes & Lahiri, 1991), Hindi (Patil, et al., 2008), Tamil (Keane, 2014), etc.), is a head final language where verb concludes a declarative utterance. In our inquiry it has been found that SCA declarative utterances maintain rising contour on each of the pre-verbal constituents where each succeeding rise shows lower (downstepped) pitch escalation compared to the previous peak. The final constituent, which is mostly a verb, lacks prominence.

**3.1 Prosodic hierarchy** The intonational framework adopted in this study is based on the pioneering works by Liberman (1975), Bruce (1977), Pierrehumbert (1980), Beckman and Pierrehumbert (1986), Pierrehumbert and Beckman (1988), and Hayes and Lahiri (1991). Intonation is a post-lexical phenomena (Ladd, 1996) which adheres to a hierarchical structure of domains, which are phonological in nature (Ito & Mester, 2012). It has been assumed in this work that SCA also shows a hierarchically arranged prosodic structure. Here we have adopted the prosodic hierarchy theory propagated and developed by Selkirk (1978; 1986; 2009), Nespor and Vogel (1986) and others.



<sup>1</sup> A sentential or nuclear accent refers to 'the last major intonational movement in an utterance' (Xu, 2011)

The highest node in the hierarchy is Intonational Phrase (henceforth IP), which corresponds mostly to a sentence. The next node below IP is that of P-Phrase. A P-Phrase is motivated by junctural phenomena rather than by the intonation pattern; it is marked by an obligatory pitch accent and often a boundary tone. The lowest node in the hierarchy adopted by us is that of prosodic word (henceforth P-word). In SCA, a prosodic word phonologically maps a syntactic word, it creates a prosodic domain parallel to the syntactic word. The idea behind considering P-words as the terminal nodes in the hierarchy is motivated by the assumption that intonation involves phrase-level phonological processes<sup>2</sup>, and a P-word is not associated with tone assignment (pitch accent and boundary tone). It is the P-Phrase which is the minimal unit of tone assignment in Assamese.

**3.2 Intonational structure** Even though phrases are supposed to be governed by the syntax of a language, increasing evidence shows that prosodic phrasing is governed more by information structuring imperatives rather than syntactic constituency. If we consider the schema displayed above (3) and the syntactic structure demonstrated below (4) we see that each pre-verbal P-phrase corresponds to a syntactic phrase.

- (4)      [[mad<sup>h</sup>ɔbɛ]<sub>NP</sub>      [[kɔmɔla k<sup>h</sup>abo-loi]<sub>PP</sub> [k<sup>h</sup>ɔgen-ɔr g<sup>h</sup>ɔr-oloi]<sub>PP</sub> [goisɛ]<sub>V</sub>]<sub>VP</sub>  
           Madhab.SUB      orange    eat-to      Khagen-'s house-to      go.PAST  
           Madhab went to Khagen's house to eat oranges

In (4) *mad<sup>h</sup>ɔbɛ*, *kɔmɔla k<sup>h</sup>abo-loi* and *k<sup>h</sup>ɔgen-ɔr g<sup>h</sup>ɔr-oloi* are three syntactic phrases (one noun phrase and two postpositional phrases respectively) which form P-phrases at the prosodic level. When we look at the intonational contour, as Figure-1 shows, each syntactic phrase corresponds to a pitch rise highlighting its manifestation as a single intonational unit, and the entire sentence is delimited by a low IP final boundary tone (in this paper L<sub>I</sub> and L% have been used interchangeably).

**Figure 1** Here the three preverbal syntactic phrases: *mad<sup>h</sup>ɔbɛ*, *kɔmɔla k<sup>h</sup>aboloi* and *k<sup>h</sup>ɔgenɔr g<sup>h</sup>ɔroloi* are intonationally marked by a rise on each. The left most syllable in each phrase bears low pitch accent (L\*) and the rightmost syllable demarcates the boundary with a high boundary tone (H<sub>P</sub>).

A P-word in SCA is not tonally specified unless it forms a phrase at the prosodic level. For instance, in (4) the phrase *kɔmɔla k<sup>h</sup>aboloi* contains two P-words: *kɔmɔla* and *k<sup>h</sup>aboloi* which lack tonal specification individually. The first syllable of *kɔmɔla* receives low pitch accent (L\*) of the phrase *kɔmɔla k<sup>h</sup>aboloi* and the final syllable of *k<sup>h</sup>aboloi* marks the termination of the phrase with high boundary tone (H<sub>P</sub>).

In SCA the stress placement rule is predictable: P-words, being sensitive to weight-to-stress principle, place prominence on a heavy syllable, though the default position for stress assignment is the first syllable. Heavy syllables do not attract primary stress beyond the second syllable (Goswami, 1982; Mahanta, 2001). It is syllable duration, rather than pitch value, that serves as the cue to this prominence pattern which is greater in case of heavy (bimoraic) syllables compared to light (monomoraic) syllables. However, irrespective of P-word level prominence pattern, the pitch accent of a P-phrase is always found to be assigned to the phrase

<sup>2</sup> These three categories (P-word, P-Phrase and IP) have been described as *interface* categories by Ito and Mester. **Invalid source specified.**



















