

## Magahi Determiner Spreading

**Background.** Determiner Spreading (DS) refers to recursive marking of modifiers (most commonly adjectives) with a D-element within a nominal phrase. This phenomenon is most well-studied in Greek (Androutsopoulou 1995; Alexiadou & Wilder 1998; Campos & Stavrou 2004; Kolliakou 2004; Panagiotidis & Marinis 2011; Lekakou & Szendrői 2012; Alexiadou 2014 a.o.), where ‘the big red book’ can be expressed as *to kokino to megalο to vivlio*, lit: ‘the big the red the book’ (Alexiadou 2014). Though it has been debated, Greek DS generally is proposed to have the following properties:

- A. The adjectives in DS must be interpreted restrictively.    B. Only adjectives that can be predicative occur in DS.

Besides Greek, DS is attested in other languages, but not always with the same characteristics. For example, Hebrew DS (Shlonsky 2004) does not share the above properties. This paper is focused on the analysis of Greek-type DS, defined as DS with properties A and B above, taking the analysis in Alexiadou & Wilder (1998); Alexiadou (2014) as a starting point. For Alexiadou & Wilder, DS involves determiners introducing reduced relative clauses (RRCs) in the spirit of Kayne (1994). This explains property B above syntactically, since the adjectives begin the derivation as predicates inside the RRC before moving to a higher projection. This analysis is also adopted for Greek-type DS in Kipsigis (Kouneli 2019), Maltese (Winchester 2019), and Rukiga (Asiimwe et al. 2023). This paper proposes an analysis of DS in Magahi, an Eastern Indo-Aryan (EIA) language spoken in Bihar, India. All uncited data comes from elicitations done by the author with 5 native speakers of Magahi. While previous analyses of DS in Greek and other languages have largely focused on the syntax, this paper proposes a semantic account of the extra determiners and restrictive interpretation, analyzing the determiners lower in the structure as domain restrictors (Ettxeberria & Giannakidou 2019) and proposing that the adjectives in DS move to a focus position. The restrictive interpretation then is a result of the Alternative Licensing Condition for focus (Rooth 1992, 2016).

**Magahi (In)Definites.** Magahi, like other EIA languages, requires classifiers with numerals. There are two classifiers *go*, *tho* in free variation that are compatible with the majority of nouns (1). Meanwhile, some nouns require contentful classifiers/measure words, e.g. *ek muthi bhaat* ‘one handful rice’; *ek gilas paani* ‘one glass water’.

- (1) a. *e-go/ek tho kitaab*  
 one-CLF/one CLF book  
 ‘one book’  
 b. *pāāc go/pāāc tho laika*  
 five CLF/five CLF boy  
 ‘five boys’ (Alok 2014)

Magahi marks familiar definites with a postnominal suffix *-waa*, which has allomorphs *-iyaa*, *-iyāā*, *-aa*, *-maa* (Alok 2022). This suffix is required for anaphoric definites, and is number neutral (Alok 2022; Sharma 2025).

- (2) *Kal ham e-go kutta dekhali ai. Kutt-#(waa) bari sundar halai*  
 yesterday I one-CLF dog saw dog-DEF very beautiful was

‘Yesterday I saw a dog. The dog was very beautiful.’

However, *-waa* can also be used for visually perceptible objects not linguistically introduced in the discourse, and thus seems to require only weak familiarity in the sense of Roberts (2003). Furthermore it is incompatible with larger situation uniqueness definites such as ‘the moon’, and so Sharma (2025) analyzes it similarly to the German strong article with some slight differences in its presuppositional content. For the current paper, however, it is only relevant that *-waa* is a determiner. To capture the NP-D word order, Sharma (2025) proposes that the NP raises to SpecDP to check a [DEF] feature similar to what is proposed for Bangla (Bhattacharya 1999; Dayal 2012), another EIA language.

**Magahi DS.** The pattern analyzed here involves modification of familiar definites in Magahi. There is a suffix *-kaa* (masc.)/-*kii* (fem.) that obligatorily follows adjectives modifying nouns suffixed with *-waa* in Magahi (Kumar 2020).

- (3) *okar bara-kii mota-kii bahani-yaa aila hai*  
3SG.POSS big-D fat-D sister-DEF came AUX

'his eldest fattest sister came' (Kumar 2022)

Traditionally, *-kaa/-kii* is described as a definiteness agreement marker in Magahi and related languages (Sinha 1966; Verma 2003; Alok 2012). However, I will argue it is a determiner introducing a RRC. The first reason to think DPs like the one in (3) are an instance of Greek-type DS is that they also obey properties A and B above. Although Magahi DS is described as obligatory in noun phrases containing *-waa* (Alok 2014; Kumar 2020), adjectives that cannot occur predicatively cannot take the suffix *-kaa/-kii*.

- (4) \**maŋar-waa barthamaan hai*  
 teacher-DEF current is
- (5) *barthamaan-(\*kaa) maŋar-waa*  
 current-D teacher-DEF

Intended: 'The teacher is current.'

Intended: 'the current teacher'

Additionally, adjectives with *-kaa/-kii* must be interpreted restrictively. The following example shows that *bara-kaa kutt-waa* ‘the big dog’ is felicitous only in a situation with more than one dog.

- (6) *kal ham {#e-go / du-go} kutta dekhali. bara-kaa kut-waa bari sundar halai*  
 yesterday I one-CLF / two-CLF dog saw big-D dog-DEF very beautiful was

‘Yesterday I saw {#a dog / two dogs}. The big dog was very beautiful.’

Finally, the relationship between RRCs and DS is clearly borne out in Magahi, as DS also happens in participial RCs.

- (7) a. *raam ke dwara likh-al-kaa kitab-aa* (8) *aam khaa rah-al-kii larkii-yaa*  
 Ram GEN by write-PTCP-D book-DEF mango eat AUX-PTCP-D girl-DEF  
 ‘the book written by Ram.’ ‘the girl eating a mango’

**Analysis.** The structure I propose for Magahi DS is based on Alexiadou & Wilder (1998); Alexiadou (2014). The determiner *-kaa/kii* introduces a RRC (labeled IP), which has a DP subject and an AP predicate, which raises to SpecDP2.

- (9)  $[DP_2[AP\text{bara}][D' [D\text{kaa}][IP[DP_1[NP\text{kutt}][D' [D\text{waa}]]t_1][I' [I\emptyset]t_2]]]$
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This derives the predicative source of adjectives in DS. However, it is unclear what motivates the movement of the AP. Work on DS in other languages has tentatively assumed this movement is related to informational structure (cf. Asimwe et al. 2023), and DS in Greek is argued to be subject to focus (Kolliakou 2004; Tsakali 2008). I argue that the AP raising in Magahi is similar, since SpecDP can be shown to be a focus position in Magahi as in other EIA languages (Syed 2015; Kumaran et al. 2025). The following examples show that while the usual word order is # CLF AP NP, the AP # CLF NP word order focuses the AP. Additionally, this AP fronting is DP-internal, since it cannot move past the subject.

- (10) a. *hamra naya tiin tho naya kitaab chahi* b. \**naya hamra tiin tho naya kitaab chahi*  
 1SG.OBL new three CLF book want new 1SG.OBL three CLF book want  
 ‘I want three NEW<sub>FOC</sub> books.’ Intended: ‘I want three NEW<sub>FOC</sub> books.’

Thus, I claim that AP raising in DS is motivated by a [FOC] feature on the AP that motivates movement to the SpecDP position. Then, we are able to account for the semantics of DS. The first puzzle is why there are multiple Ds but only one referent. Ettxeberria & Giannakidou (2019) show that D is not always used referentially, but often as a domain restrictor. The most clear cases are in quantification. In Greek, the determiner can coocur with the quantifier “every”. This is seen in Magahi too: *har laik-waa* ‘every boy-waa’. They propose that D in DS undergoes type-shifting to  $D_{DR}$ . Their semantics for  $D_{DR}$  is given here (2019: 435).

- (11)  $\llbracket D_{DR} \rrbracket = \lambda P_{et} \lambda x [P(x) \cap C(x)]$

C is an anaphoric variable that yields a contextually salient set of individuals. The fact that a familiar definite marker is able to introduce this anaphoric variable for domain restriction is predicted by Ettxeberria & Giannakidou. Then, the denotations for DP1 and DP2 in (6) are as below.

- (12)  $\llbracket DP1 \rrbracket = \lambda x. dog(x) \wedge C(x)$  (13)  $\llbracket DP2 \rrbracket = \iota x [dog(x) \wedge C(x) \wedge big(x)]$

The second puzzle is why DS requires a restrictive interpretation. I argue that it is due to focus on the AP and is a special case of Rooth’s alternative licensing. Let  $\phi$  be the semantic element containing focus and  $k$  be the antecedent.

- (14) Alternative Licensing (Rooth 2016):  
 $\phi \sim k$  requires that the semantic element  $k$  is either:  
 (i) an element of  $\phi^f$  that is distinct from  $\phi^o$ , or  
 (ii) a subset of  $\phi^f$  of cardinality at least two that includes  $\phi^o$ .

While this is used for clausal level focus, I argue that DS is subject to an equivalent DP-internal alternative licensing condition. Essentially instead of a proposition  $\phi$ , there is an individual  $x$  with a focused constituent. In the case of (6), the ordinary semantic value is  $\llbracket \text{bara-kaa kutt-waa} \rrbracket^o = \iota x. dog(x) \wedge C(x) \wedge big(x)$ . Since focus is on the adjective, the focus value is  $\llbracket \text{bara-kaa kutt-waa} \rrbracket^f = \{ \iota x. dog(x) \wedge C(x) \wedge P(x) \mid P : E \rightarrow \text{propositions} \}$ . Then, alternative licensing would require that the antecedent for focus is a subset of the focus value that contains the ordinary semantic value and at least one other element. For (6), this means the requirements are:

1.  $\{x \mid dog(x) \wedge C(x)\} \subset \{ \iota x. dog(x) \wedge C(x) \wedge P(x) \mid P : E \rightarrow \text{propositions} \}$
2.  $\iota x. [dog(x) \wedge C(x) \wedge big(x)] \in \{x \mid dog(x) \wedge C(x)\}$
3.  $|\{ \iota x. dog(x) \wedge C(x) \wedge P(x) \mid P : E \rightarrow \text{propositions} \}| \geq 2$

The important requirement for the restrictive interpretation is the last one, which guarantees that there is more than one dog in the context. This correctly predicts the judgements in (6) where *du-go kutta* ‘two dogs’, but not *e-go kutta* ‘one dog’, can be the antecedent for focus.

**Conclusion.** Evidence showing Greek-type DS occurs in Magahidefinites is reported. I propose a syntax based on Alexiadou & Wilder’s RRC analysis and a novel account of the restrictive reading of adjectives in definite DS is proposed that derives the interpretation from the interaction of domain restriction (Ettxeberria & Giannakidou 2019) and focus. Additionally, Rooth’s 2016 Alternative Licensing condition was slightly modified for DP-internal focus.

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