# Wh-movement and the Distribution of Sei and Wh in the Bangla DP

AMBALIKA GUHA<sup>1</sup>, The English and Foreign Languages University

## Abstract

This paper aims to show instances of wh-movement in the DP of the Eastern Indo-Aryan language Bangla. It further discusses the licensing position of the moved wh-phrase in the Bangla DP, which happens to be not in the DP-initial position but below the position of the subject of the DP. The paper also views the relationship of the wh words and the demonstratives. In the Bangla DP the wh words do not occur with the demonstratives. However, there are certain contexts in which an anaphoric demonstrative apparently occurs with the wh words in the DP.

## 1 Introduction

In Bangla the *wh*-word *kon* 'which' in (1) functions as the Q(uestion) word for both the Dem(onstrative)<sup>2</sup> and the A(djective), as shown by the possible answers in (2) and (3) respectively.

- (1) [kon du -To jama] kinle? which two -Cla dress bought 'Which two dresses did you buy?'
- (2) [ei/ oi/ Sei du -To jama] kinlam this/ that/ that two -Cla dress bought 'I bought these/those two dresses.'
- (3) [LAL du -To jama] kinlam red two -Cla dress bought 'I bought two red dresses.'

Since the *wh* kon 'which' functions as the Q word for both the Dem and the A, it can be assumed that the *wh* kon base generates in two separate syntactic positions depending on the context. One is in the Dem<sup>0</sup> (which is a pre-Num position) when kon functions as the Q word for the Dem, cf. (2). The other is in the  $A^0$  (which is a post-Num position) when kon functions as the Q word for the A, cf. (3).<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> guhaambalika64@gmail.com

<sup>&</sup>lt;sup>2</sup> In Bangla there are three demonstratives: *ei* (proximal this), *oi* (distal that), and *Sei* (anaphoric that).

<sup>&</sup>lt;sup>3</sup> In (3) the A has moved from its merge position (which is post-numeral) to the pre-numeral position. In the Bangla DP the A can occur in two non-canonical positions. One is in the pre-Dem position and the other one is in the post-Dem and pre-Numeral position. Its occurrence in both these positions has to be focused when the NP is left in its merge position (for details see Syed (2012) and Guha (2017)). Thus it has been claimed that there are two focus positions in the Bangla DP, one is in the pre-Dem position in (proposed by Syed (2012) and the other one is in the post-Dem position (shown in Guha (2017).

However, the non co-occurrence of the *wh kon* and the Dem, cf. (4) and its occurrence with the A, cf. (5) seem to suggest that the merge position of the *wh kon* is same as the Dem and not the A.

(4)	*[ei/	oi/	Sei	kon	du	-To	jama]	kinle?
	this	that	that	which	two	-Cla	dress	bought
(5)	[kon	du	-To	lal	jama]	kinli?		
	which	two	-Cla	red	dress	bought		
	'Which	two rec	l dresses	did you	buy?"			

Interestingly other *wh*-words like *kata* 'how many' also does not co-occur with the Dem, as can be seen in (6).

(6) \*[ei/ oi/ Sei kata jama] kinle? this that that how many dress bought Lit: 'These/those how many dresses did you buy?'

It cannot be the case that the *wh*-word *kata* 'how many' which is the Q word for the Num(eral) merges in the same position as the Dem and that is why they do not co-occur. I will suggest that the non co-occurrence of the Dem and the *wh*-words in the DP in (4) and (6) is due to feature conflict. The *wh* variable corresponds to a set whose identity is not known, and so is in conflict with the Dem that asserts that the identity of the set is known.

We have already noticed that the *wh* kon in (1) functions as the Q word for both the Dem in (2) and the A in (3). In the next section, we will notice that there are certain contexts in which kon functions as the Q word for the A and not the Dem. This will further lead to the proposal that the *wh* kon is indeed merged in the post-Num position, i.e., in the A position, and obligatorily moves to the pre-numeral position in the Bangla DP.

#### 2 Kon moves in the Bangla DP

Let us first consider the context in Situation 1 and the argument will be presented eventually. **Situation 1**: X calls Y over telephone and tells her that she and Z have bought four tables of two different sizes: two big and two small. X also tells Y that she bought two tables out of the four. Now, Y asks X 'which two tables did you buy?' As a response to that question in (7), X can utter the sentences in (8), but not the one in (9).

(7)	tumi	[kon	du	-To	tebil]	kinle?					
	you	which	two	-Cla	table	bought					
	'Which	n two tab	les did y	ou buy?	,						
(8)	[CHO]	Ю	du	-To	tebil]	kinlam					
	small		two	-Cla	table	bought					
	Lit: 'I bought the SMALL two tables.'										
(9)#	#[ei/	oi/	Sei	du	-To	tebil]	kinlam				
	this	that	that	two	-Cla	table	bought				
	Lit: 'I bought these/those two tables.'										

Following the context given in Situation1 the occurrence of the Dem in (9) is infelicitous because the demonstratives require 'associated demonstration' (termed by Kaplan (1989)), i.e., the deictic Dems *ei* 'this' and *oi* 'distal that' require pointing to the entity. Such demonstration is not possible in Situation1 as the speaker and the hearer are not present at the same place. The anaphoric Dem *Sei* 'anaphoric that' is used in contexts where both the speaker and the hearer have at least once seen the entity. In the given Situation 1 the hearer cannot visually recognise it as she has not seen the entity. The only way the hearer can identify the referent of the NP in the Situation 1 is by the size of the entity which the speaker has already mentioned. Thus the *wh kon* in (7) following the given context in Situation1 is the Q word for the A in (8) and not the Dem in (9).

Since the *wh* kon in (7) is the Q word for the A, I assume that kon has merged in the  $A^0$  (in the post-Num) position and then it obligatorily must move to the pre-Num position in the DP. This is evident from (10) which shows that kon cannot be left in its merge position.

(10) tumi [kon<sub>i</sub> du -To (\*kon<sub>i</sub>) tebil] kinle?

Now consider the occurrence of the *wh kon* in the context given below in Situation2 where more than one adjective occurs. Here, I will show that the *wh kon* merges in the head of the lower adjective and then moves from its merge position to the position above the numeral-classifier, crossing the higher adjective.

**Situation 2**: X calls Y over telephone and tells Y that yesterday X and Z bought four tables of two different colours and sizes. X further tells Y that they bought three small tables and one big table, out of which two small tables are red, and one small table is blue, and the big table is also blue. X also tells Y that she bought only two tables and those are small. Now, Y asks X 'which two small tables are yours?' in (11). As a response to that X can utter the sentence in (12) where the colour A replaces the *wh kon* and not the one in (13) where the Dem replaces the *wh kon*.

(11)	[kon	du	-To	choto	tebil]	tor?	
	which	two	-Cla	small	table	your	
	'Which two small tables are yours?'						

- (12) [LAL du -To choto tebil] amar red two -Cla small table mine 'Two small red tables are mine.'
- (13) #[ei/ oi/ Sei/ du -To choto tebil] amar -Cla this that that two small table mine 'These/those two small tables are mine.'

In the given Situation 2, the occurrence of the Dem in (13) is infelicitous because the demonstration of the object in question in (11) is not possible either by pointing or by visual recognition as the speaker and the hearer are not present at the same place. Since the *wh kon* in (11) is the Q word for the A in (12) and not the Dem in (13), I assume that *kon* in (11) has merged in the position of the colour A, which is below the position of the size A. Then it has moved to

the pre-Num position violating the adjective ordering restriction<sup>4</sup> in the DP, and the movement of the *wh* kon in (11) is obligatory as it is evident from (14) which shows that the *wh* kon cannot stay in its merge position (which is in the Colour  $A^0$ ) and has moved to the pre-numeral position.

(14) [kon<sub>i</sub> du -To choto ( $*kon_i$ ) tebil] tor?

#### 3 Licensing position of the *wh kon* in the Bangla DP

Since the *wh* words do not co-occur with the Dems in the Bangla DP (as shown in (4) and (6)), it can be argued that the wh *kon* in (10) and (14) has moved to the clausal domain. But I will suggest that the moved *wh kon* lands in a position below the position of the subject of the DP, cf. (15). This becomes more evident from the ungrammaticality of (16) where the occurrence of the *wh kon* above the possessor is not allowed.

(15) [Satya Satya		: ko EN wł	n du nich two	-To -Cla	Sari] sari	kinli? bought
'Whicl	n two sai	ris of Satya I	Paul did yo	u buy?'		
(16) *[kon	Satva	Paul-er	du	-To	Sari]	kinli?
	•	Paul- GE		-Cla	sari	bought

The occurrence of the *wh* kon below the subject of the DP in (15) corresponds to Bhattacharya and Simpson's (2003) claim that the moved *wh* phrase in the Bangla clausal domain cannot occur in the clause initial position. It always occurs below the position of the subject of the sentence. They further show that the subject preceding the moved *wh* phrase in the clause is always definite and cannot be indefinite. Bhattacharya and Simpson conclude that the elements preceding *wh*-phrase in Bangla are left-dislocated in topic positions as they are definite. They suggest that the position of the *wh*-phrase in Bangla is in the regular C-domain. But not in the clause initial position (like in English). It appears in the focus position below the topic position in the C-system where the subject has moved to.

Following (15) and (16), I suggest that the licensing position of the *wh*-phrase in the Bangla DP is below the subject position of the DP and not in the DP-initial position, and this is in parallel to Bhattacharya and Simpson's argument for the licensing position of the *wh*-phrase in the Bangla clausal domain. I will further assume that the subject of the DP in (15) has moved to a topic position inside the DP and the *wh kon* has moved to the focus position inside the DP and below the topic position where the possessor has moved to.

It has been argued that in the Bangla DP there exist two focus phrases and one topic phrase. Syed (2012) proposed that there is focus phrase in the pre-Dem position and there is a topic phrase above the pre-Dem focus phrase. There is a second focus phrase in the Bangla DP, i.e, in the post-Dem position (as shown in Guha (2017)). The nominal left peripheral projection of the Bangla DP is shown below in (17). Also consider that the Dem surfaces in the D<sup>0</sup> in (17).

(17) [TopP [FocP [D [FocP....

 $<sup>^4</sup>$  Sproat and Shih (1999) discuss that there is the universal adjective ordering restriction: Adj<sub>quality</sub>>Adj<sub>size</sub>>Adj<sub>shape</sub>>Adj<sub>color</sub>>Adj<sub>Nationality</sub>. The re-ordering of the adjectives would lead to ungrammaticality.

I suggest that the possessor in (15) has moved from the Spec of the DP to the pre-D TopP and since the *wh* word cannot occur in a position above the possessor (as shown in 16), I assume that the *wh* kon in (15) has moved from the post-Num position to the pre-D FocP. The DP-internal movements of the possessor and the *wh* kon have been schematized below in (18).

(18) [TopP Satya Paul-eri [FocP konj [DP ti [du-To[ tj [Sari]]]]]

In Malayalam also the *wh* phrase does not move to the clause initial position. There are instances of the subject *wh* movement to the IP-internal focus projection and the object of the verb moves to the IP-internal topic projection which is above the focus phrase where the subject *wh* has landed, as shown in Jayaseelan (2001, 2004).

#### 4 The co-occurrence of the demonstrative 'Sei' and the wh-words in Bangla

We have noticed in (4) and (6) that the *wh*-words do not occur with the demonstratives *ei* 'this', *oi* 'distal that', and *Sei* 'anaphoric that'. Interestingly there are certain contexts in which the Dem *Sei* can occur with the *wh* words, but the Dems *ei* and *oi* cannot, as shown in (19) and (20).

(19) Context 1: bole 'say' complementizer

	[(*ei/oi) this/that/	Sei that	kon which	du two	-To -Cla	jama] dress	kinbi will buy	bole COMP		
	bolchili									
	was saying									
	a. Lit: 'Which two dresses were you saying this you will buy?'									
	b. Lit: 'You were saying this which two dresses you will buy.'									
			e			•	•			
(20)	(20) Context 2: N(oun) C(omplement) C(lause)									
	[(*ei/oi)	Sei	kon	du	-To	jama]	kenar	katha		
	this/that/	that	which	two	-Cla	dress	buy-GEN	talk		
							•			

bolchili? was saying Lit: 'Which two dresses were you saying this of buying?'

Following the data in (19) and (20) it might seem that the Dem *Sei* and the *wh* word co-occur in the Bangla DP, but I will show that the Dem *Sei* and the *wh* word in (19) and (20) are not adjacent. This is evident from (21) and (22) where the Dem *Sei* and the *wh* kon are separated by the adverb *gatokaal* 'yesterday' both in the *bole* complementizer context, cf. (21) and in the NCC context, cf. (22).<sup>5</sup>

(21) Sei -To gatokaal [[kon du jama] kinbi bole] bolchili yesterday which two -Cla dress buy COMP was saying that a. Lit: 'Yesterday, which two dresses were you saying this you will buy?' b. Lit: 'Yesterday, you were saying this which two dresses you will buy'

<sup>&</sup>lt;sup>5</sup> The same result is also observed with the *wh kata* 'how many' as well.

(22) Sei	gatokaal	[[kon	du	-To	jama]	kena-r	katha]		
that	yesterday	which	two	-Cla	dress	buy-GEN	talk		
bolchili?									
was saying									
Lit: 'Yesterday, which two dresses were you saying this of buying?'									

Based on (21) and (22) where the Dem *Sei* and the *wh* kon are separated by the adverb, I will suggest that the Dem *Sei* and kon in (19) and (20) occur in the separate DPs. This claim is further supported by the occurrence of the *je* 'that' complementizer, cf. (23). Notice that in (23) the Dem *Sei* and the *wh* kon is separated by the matrix verb and the *je* complementizer.

(23) tui	Sei	bolchili	je	[kon	du-To	jama]	kinbi			
you	that	was saying	COMP	which	two-Cla	dress	will buy			
Lit: '	Lit: 'You were saying this which two dresses you will buy'									

The anaphoric Dem *Sei* usually refers to an individual or an entity, as can be seen in (24) and (25). I suggest that the Dem *Sei* in (19)-(23) refers to the event mentioned in the embedded clause, as evident from (26) where the Dem *Sei* refers to the event of 'giving gift to Amrita.'

- (24) Sei chele -Ta that boy -Cla 'that boy'
- (25) Sei jama -Ta that dress -Cla 'that dress'
- (26) X: tumi baba-ke bolecho [je Amrita-ke ki upohar debe]? you father-ACC said COMP Amrita-ACC what gift give 'Have you told your father that what gift you will give to Amrita?'
  - Y: Sei bolchi that is saying 'I am saying that.'

Similarly, in (19)-(23) the Dem *Sei* refers to the event of buying which two dresses that has already been mentioned by the subject of the embedded clause.

Bangla may not be unique to show that the Dem *Sei* (anaphoric that), besides referring to a nominal expression, also refers to an event. Jayaseelan and Hariprasad (2001; fn. 8; ex iv) shows that the English proximal Dem 'this' can refer to an entire clause, cf. (27).

(27) The world is teetering on the brink of war. This should worry us.

#### 5 Conclusion

Summarizing the main arguments of the paper, we have observed that the *wh kon* merges in the  $A^0$  (in the post-numeral position) and then it must move to the pre-numeral position in the Bangla DP. In the Bangla DP there are two focus positions: one above the D and the other one is below the D, and there is one topic position which is above the pre-D focus position. We have noticed that the moved *wh kon* occurs below the position of the subject of the DP. We have argued that the subject of the DP has moved to the pre-D topic position and the *wh kon* has moved to the pre-D focus position which is below the topic position where the subject of the DP has moved to. We have further noticed that the *wh* words and the demonstratives do not co-occur due to feature conflict. However, the anaphoric demonstrative *Sei* occurs with the *wh* word, but in that case both of them are in the separate DPs.

## Acknowledgments

I would like to thank the participants of the conference FASAL 8 for their insightful comments. Special thanks to Prof. R. Amritavalli and Dr. Rahul Balusu for the productive discussions.

## Reference

- Bhattacharya, Tanmoy and Andrew Simpson. 2003. Obligatory overt *wh*-movement in a *wh* in situ language. In *Linguistic Inquiry*, 34(1), pages 127-142.
- Guha, Ambalika. 2017. Focus and Nominal Ellipsis in the Bangla DP. In M. Y. Erlewine, ed., MIT Working Papers in Linguistics: In Proceedings of GLOW in Asia XI, vol. 2, pages 73-86. Cambridge, MA: MIT Working Papers in Linguistics.
- Jayaseelan, Karattuparambil Achuthan. 2001. IP-internal topic and focus phrases. *Studia Linguistica*, 55(1), pages 39-75.
- Jayaseelan, Karattuparambil Achuthan. 2004. Question movement in some SOV languages and the theory of feature checking. *Language and Linguistics*, 5(1), pages 5-27.
- Kaplan, David. 1989. An Essay on the Semantics, Logic, Metaphysics, Epistemology of Demonstratives and Other Indexicals. In J. Almong, J. Perry, & H. Wettstein, eds., *Themes* from Kaplan, pages 559-561. Oxford: Oxford University Press.
- Sproat, Richard and Chilin Shih. 1991. The Cross-Linguistic Distribution of Adjective Ordering Restrictions. In C. Georgopoulos and R. Ishihara, eds., *Interdisciplinary Approaches to Language: Essays in honor of S. Y. Kuroda*, pages 565-593. Dordrecht: Kluwer Academic Publishers.
- Syed, Saurov. 2012. DP-internal focus and topic in Bangla. In N. Goto, K. Otaki, A. Sato, & K. Takita, eds., *Proceedings of Glow In Asia IX*, pages 1-10.