

## Left Branch Extraction asymmetries and its interaction with focus in Bangla-consequences on the nature of phase edges

This paper discusses certain left-branch extraction asymmetries in Bangla w.r.t the thematic role of the extracted constituent, and also how those apparent locality constraints on left branch extraction are ameliorated in the presence of an overt focus operator on the stranded DP. The paper proposes an analysis of the phenomenon which informs existing debates about the existence of successive-cyclicity in DP phases (Chomsky 1973, Bach and Horn 1976, Bruening 2009, Bosque and Gallego 2014 and others) and also raises questions about the derived nature of intermediate positions in general.

**Introduction and Data-** The DP structure of Bangla has been discussed in a number of works (Bhattacharya 1999, Simpson and Syed 2016, Syed and Simpson 2017). As shown in Simpson and Syed (2017), DPs in Bangla allow a range of functional projections between the D and the N positions, in the order DP > DemP > QP > CIP > NP. Nouns can select for various kinds of arguments with different thematic roles. Here I talk about three of them- possessors, agents and themes. Possessors always precede DemP, while agents and themes possibly can, but don't necessarily need to. All the three kinds are marked with genitive case. Possessor, agent and theme arguments of the noun follow a fixed relative order, which is possessor > agent > theme. The data below show the relative ordering of the genitive-marked possessors, agents and themes.

1. Ram-er da Vinci-r MonaLisa-r oi du-To chobi  
Ram-Gen da Vinci-Gen MonaLisa-Gen Dem two-CL book  
“A picture of MonaLisa by da Vinci belonging to Ram.”

Sub-extraction from DPs in Bangla shows the following properties- i) LBE of possessors is never allowed (2a). Presence of a possessor also bans any other extraction out of the DP (2b). ii) In the absence of a possessor, the agent can be left-branch extracted (3a). The presence of the agent blocks any other extraction out of the DP (3b). iii) Again in the absence of the agent and the possessor, the theme can be extracted. But similarly, nothing else can be extracted out of the DP even in that case. iv) Extraction of multiple arguments is generally degraded. Surprisingly, all of these illicit cases of extraction in (i)-(iii) become permissible if the stranded phrase contains a focus operator *shudhu* ‘only’, as shown by a representative example (4).

- 2a. \*Ram-er ami kal [t du-to boi] niyechi  
Ram-Gen I yesterday two-CL book took  
“I took two of Ram's books yesterday.”
- 2b. \*du-to boi ami kal [Ram-er t] niyechi.  
two-CL books I yesterday Ram-Gen took  
“I took two of Ram's books yesterday.”
- 3a. da Vinci-r ami kal [t MonaLisa-r du-to chobi] dekhechi.  
Da Vinci-r I yesterday MonaLisa-Gen two-CL pictures saw  
“I saw two pictures of MonaLisa by da Vinci yesterday.”
- 3b. \*du-to chobi ami kal [da Vinci-r MonaLisa-r t] dekhechi.  
two-CL pictures I yesterday da Vinci-Gen MonaLisa-Gen saw  
“I saw two pictures of MonaLisa by da Vinci yesterday.”
4. Ram-er ami kal [**shudhu** t du-to boi-i niyechi]  
Ram-Gen I yesterday two-CL book-Foc took  
“I took only two of Ram's books yesterday, (I took no other belonging of Ram's).”

**Possible Analyses and problems-** In cases like (1), these multiple genitive phrases can be seen occupying a position above DemP. I assume that agents and themes are base generated in lower positions within the DP (possibly in the spec of an nP and complement of N respectively), and can then undergo optional DP-internal movement to SpecDP positions. The possessor is base generated in the highest specifier position. The arguments can either be assumed to be occupying multiple specifier positions of a single D head, or be assumed to occupy specifiers of multiple D heads. With the assumption of them being in the specs of multiple D heads, one might think of an anti-locality style account of absence of possessor extraction, specially given that DPs in Bangla have been argued to be phases (Syed and Simpson 2016). The possessor, being in the highest DP specifier, cannot undergo intermediate movement into a higher specifier of the

same head in order to be visible to higher probes outside the DP domain, given the restriction of spec to spec anti-locality that requires movement to cross at least one maximal projection (Erlewine 2014, Bošković 1997 and others). However, this approach raises a number of crucial problems. (i) If an intermediate position is available that the possessor cannot move into due to spec to spec anti-locality, such a position should still be available to the lower arguments of a possessor DP, and extraction out of the DP should be allowed even in the presence of a possessor. (ii) The second major issue with this approach will be to answer why the same freezing effects do not obtain with the other arguments in the absence of a possessor, where those other arguments happen to occupy the highest specDP position. It might be said that this is because a highest possessor DP is always projected even in the absence of an overt possessor, which allows the lower arguments to reach the escape hatch position without violating anti-locality, but that still brings us back to the question of why all other cases of sub-extraction are then blocked in the presence of an overt agent or theme. Hence, an intermediate position plus spec to spec anti-locality approach fails to explain the patterns of blocking effects induced by the presence of a higher argument. If on the other hand, the highest specifier position is itself considered the edge position, that explains why subextraction is blocked when the specifier position is filled with an overt possessor, but that still doesn't explain why the possessor itself cannot undergo extraction. One might even wonder if a Cyclic Linearisation style approach (Fox and Pesetsky 2003, 2005) that dispenses with the PIC and only makes reference to shape conservation requirements could explain the patterns. Such an account might explain why only the left-most element is allowed to be extracted in case of certain DPs, but such an account still runs into problems in explaining why the possessor cannot be extracted in spite of being the left-most element in a DP, and why multiple extraction of the different arguments is degraded even when the linear order in the base position are preserved in the final position. These accounts also face problems in explaining how these constraints become violable in the presence of focus, as shown above.

**Proposal-I** suggest, in line with much previous work that argues against the cyclic status of DPs (Bosque and Gallego 2014 and others), that DPs in Bangla lack intermediate escape hatch positions. That is to say, DPs do not allow creation of specifiers that serve only as intermediate landing sites and are not created as a result of any independently motivated final movement step within the DP. I further suggest that, phase edge positions are necessarily derived positions, as has been independently stated in Müller (2000, 2007 and others, also see Heck and Mueller 2006 for additional motivations of the above claim, and Müller 2007 for possible implications on other domains). "Edge-A category is part of the edge of a phase iff it is a specifier of a phase head that is created by Move." (Müller 2007:25). I adopt an analysis where the multiple genitives occupy multiple specifier positions of a single D head. Given that agents and themes are base generated lower than the Spec DP, the Spec DP positions of the themes and the agents are derived specifier positions, while that of the possessor is a non-derived specifier position. Given that no additional intermediate spec positions are allowed to be created, only the element in the highest spec position is allowed to undergo extraction, provided that it is a derived spec position. This claim makes an interesting prediction. If it could be possible to have the possessor undergo some DP-internal movement, it should then be able to undergo extraction. That is, I suggest, exactly the case with the DPs with a focus particle. The focus particle, when present, is adjoined in the DP edge position. The possessor can now scramble to a higher specifier position across the focus particle with the effect of altering the scopal relation between the possessor and the focus particle. Thereby, the focus particle helps in creating a derived specifier position by an independent movement step, that is then available for further probing by higher probes. Hence the paper suggests that the LBE patterns in Bangla provide additional evidence for the lack of cyclic status of DPs, and also provides evidence for derived nature of intermediate positions, both of which have been independently claimed in the literature.

Selected References- Heck, Fabian and Gereon Müller. 2006. Derivational optimization of wh-movement. Ms., Universität Leipzig. To appear in special issue of *Linguistic Analysis: Dynamic Interfaces*; ed. Kleanthes Grohmann. Syed, S., & Simpson, A. (2017). On the DP/NP status of nominal projections in Bangla: Consequences for the theory of phases. *Glossa: A Journal of General Linguistics*, 2 (1).