Successive cyclicity in DPs: Evidence from Mongolian nominalized clauses[1]

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1   Introduction

A well-established property of long-distance movement is that it is *successive cyclic*: phrasal movement of an XP from its base position to the one where it is pronounced takes place in a series of shorter steps. This punctuated nature of movement is often tied to phasehood. Phases are taken to be special in that they (*i*) may provide intermediate positions along the path of successive cyclic movement where moving XPs can stop off and (*ii*) force XPs to land in these positions by virtue of being opaque domains otherwise. By now, there is a growing body of evidence that long-distance movement stops off at the edge of each intervening CP (Henry, 1995; McCloskey, 2002; Torrego, 1984) and *v*P (Bruening, 2001; Rackowski and Richards, 2005; van Urk, 2015) (see Citko 2014 for an overview). However, there is debate as to whether DP, another purported phasal domain, hosts escape hatches and allows intermediate movement through its edge (Bach and Horn, 1976; Chomsky, 1973; Cinque, 1980; Gavruseva, 2000; Giorgi and Longobardi, 1991; Matushansky, 2005; Svenonius, 2004; Szabolcsi, 1994; Tellier, 1991). On the one hand, Complex Noun Phrase Constraint effects as in (1) may be taken to show that DPs lack an escape hatch.

(1)   a.   Where$_i$ did you hear [$_{CP}$ that Mary bought a house t_i] ?

       b.   *Where$_i$ did you hear [$_{DP}$ a rumor that Mary bought a house t_i]] ?

On the other hand, left-branch extraction facts crosslinguistically have been argued to show the opposite (Cinque, 1980; Gavruseva, 2000; Giorgi and Longobardi, 1991; Szabolcsi,

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[1] All uncredited data are from original fieldwork with two informants. The diacritic % is used to indicate points of speaker variation.

1984, 1994). For instance, Szabolcsi (1994) shows for Hungarian that only possessors that appear to the left of determiners when non-extracted can undergo movement from their containing DP. She and others (e.g. Gavruseva 2000) have tied this to the availability of an escape hatch position within DP. Similarly, in Romance, only those arguments that can be possessivized can move out of the DP, which has also been taken to show that XPs must pass through Spec, DP in order to move out of the phase (Cinque, 1980; Giorgi and Longobardi, 1991). However, such interpretation of these facts is not uncontroversial. Left-branch extraction data have been analyzed by others as showing instead the *absence* of a D-layer altogether (Bošković, 2005, 2014; Uriagereka, 1998). Thus, the question remains: does DP allow — and require — movement of phase-internal material through its edge?

In this paper, I present novel evidence from Mongolian (Mongolic) showing that movement happens successive cyclically from at least some DPs. Nominalizations in Mongolian require Ā-movement out of them to stop off at [Spec, DP]. Supporting evidence comes from unexpected interactions between embedded subject case and movement. Subjects of these nominalized clauses can ordinarily receive nominative (NOM), genitive (GEN) or accusative (ACC) case. The subject of a nominalized clause receives accusative case if it occupies Spec, DP, but movement from within the clause disrupts this case possibility. Specifically, (i) ACC on the subject of a nominalized clause is impossible when a non-subject undergoes movement out of that DP, and (ii) ACC is impossible on the subject of any intermediate nominalized clause which is crossed by movement. I argue that the (un)availability of ACC-case marking is a reflex of successive-cyclicity in DPs: when ACC on a nominalized clause subject is blocked, it signals that the edge of that DP has been targeted for intermediate movement. More broadly, these results lead to the conclusion that [Spec, DP] serves as a landing site for intermediate movement in at least some DPs and suggest that phases of any category can, in principle, provide escape hatches for movement out of them.

2 Mongolian Nominalized Clauses and Subject Case

2.1 Nominalized clauses are nominals

Subordinate clauses in Mongolian are ordinarily headed by the complementizer *gež* (2). But in addition, a range of embedding predicates, including verbs of perception (*xarsax* 'see', *sonsax* 'hear'), (certain) cognitive factives (*medex* 'know, *olč medex* 'find out') and verbs of saying (*xelsex* 'tell'), take nominalized complements. Though an overt nominalizer is absent, the nominal nature of these clauses is illustrated by the fact that they are obligatorily case marked (3), can be complements of prepositions (4), and may appear in subject positions (5). CPs in this language do not show any of these properties.

(2) Bi [Bat suglax-nd   xož-san   gež] med-en/bod-deg
     I   [Bat lottery-DAT win-PAST C]   know-DUR/think-HAB
     'I know/think that Bat won the lottery.'

(3) *Nominalized complements must bear case; CPs cannot.*
    a. Bi [Bat suglax-nd   xož-sn]*(-iig)   med-en
        I   [Bat lottery-DAT win-PAST]*(-ACC) know-DUR
        'I know Bat won the lottery.'   ACC-*marked nominalization*

    b. Bi [Dorž oč-tai   bai-gaa]*(-d)   haram-san
        I   [Dorj sick-COM be-IMPRF]*(-DAT) regret-PAST
        'I regretted that Dorj is sick.'   DAT-*marked nominalization*

    c. Bi [Bat suglax-nd   xož-san   gež](*-iig) med-en
        I   [Bat lottery-DAT win-PAST C](*-ACC) know-DUR
        'I know that Bat won the lottery.'   *CP*

(4) *Nominalized complements can complement prepositions; CPs cannot.*
    a. Bid [Naraa büžigle-san] touxai jari-san
        We [Naraa dance-PAST] about talk-PAST
        'We talked about Naraa having danced.'   *nominalization*

    b. *Bid [Naraa büžigle-san gež] touxai jari-san
        We [Naraa dance-PAST C]   about talk-PAST
        'We talked about that Naraa had danced.'   *CP*

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(5) *Nominalized complements can be subjects; CPs cannot*

    a. [Bat   xöl-öö   xogal-san]-n'   mede-gd-sen
       [Bat.NOM leg-REFL break]-PAST]-3.POSS know-PASS-PAST
       'That Bat broke his leg is known.'   *nominalization*

    b. *[Bat   xöl-öö   xogal-san gež](-n')   mede-gd-sen
       [Bat.NOM leg-REFL break]-PAST C]-(3.POSS) know-PASS-PAST
       'That Bat broke his leg is known.'   *CP*

2.2 Subject Case Alternations

Subjects of nominalized embedded clauses may be case-marked in one of three ways: with
NOM (unmarked), GEN (*-iin/nii*) or ACC (*-(ii)g*).

(6)   Bi Bat/Bat-**iin**/Bat-**iig**   suglax-nd xož-sn-iig   med-en
       I Bat.**NOM**/Bat-**GEN**/Bat-**ACC** lottery-DAT win-PAST-ACC know-DUR
       'I know that Bat won the lottery.'

Though seemingly in free variation, when we look beyond the basic cases, we find syntactic environments where one or the other case morphology is blocked. I take these asymmetries to reflect differences in the syntactic position of the nominal in question, as schematized in Figure 1.[2] Evidence for such structural differences among differently case-marked subjects come from specificity effects, NPI licensing facts, and variability in case-possibilities depending on the syntactic position of the clause. I elaborate on these arguments below.
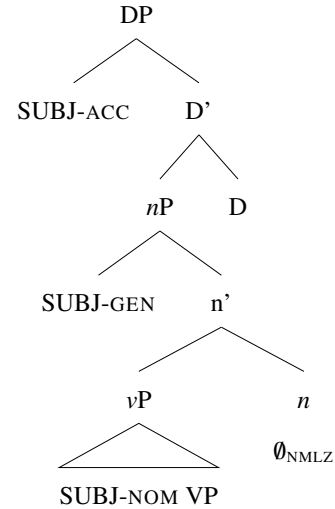

Figure 1: Assumed structure

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[2]The assumed syntax is in the spirit of Abney (1987) and Borsley and Kornfilt (2000) in taking nominalizations to involve a verbal projection dominated by a nominal projection.

2.2.1 NOM *vs.* GEN/ACC

Case on subject nominals varies as a function of specificity. For instance, a non-specific indefinite subject of a nominalized clause can only bear NOM (7). Pronouns, on the other hand, show the opposite pattern in disallowing NOM (8).[3]

(7) *Only* NOM *is possible on non-specific indefinites*
     Bi   [xen negen/*negen-**ii**/*negen-**iig**   Naraa-g   zour-sn]-iig
     1.NOM who one.**NOM**/*one-**GEN**/*one-**ACC** Naraa-ACC draw-PAST-ACC
     med-ež   bain
     know-CV be
     'I know that someone drew Naraa.' (but I don't know who.)

(8) *Pronouns cannot be* NOM
     a. Naraa [mini/namaig/*bii   bužigle-x-iig]   xar-san
         Naraa 1.GEN/1.ACC/*1.NOM dance-FUT-ACC see-PAST
         'Naraa saw me dance.'

     b. Naraa [čini/čamaig/*čii   bužigle-x-iig]   xar-san
         Naraa 2.GEN/2.ACC/*2.NOM dance-FUT-ACC see-PAST
         'Naraa saw you dance.'

     c. Naraa [tüünii/tüüniig/*tir   bužigle-x-iig]   xar-san
         Naraa 3.GEN/3.ACC/*3.NOM dance-FUT-ACC see-PAST
         'Naraa saw him dance.'

These patterns provide indirect evidence that GEN/ACC-marked subjects are structurally higher than NOM subjects. More specifically, a NOM subject remains in the *v*P-internal position where it is generated, whereas GEN/ACC subjects move out of this position (see Asarina 2011 and Gribanova 2017 for similar claims about Uyghur and Uzbek respec-

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[3]There is an interesting contrast between pronouns and proper names, in that the latter may appear with NOM case. Differential Object Marking in Mongolian does not exhibit this contrast in specificity, and requires ACC on both proper names and pronouns (i).

(i) a. Bat namaig/*bi   xar-san   b. Bat Naraa*(-g)   xar-san
         Bat 1.ACC/*1.NOM see-PAST   Bat Naraa*(-ACC) see-PAST
         'Bat saw me.'   'Bat saw Naraa.'

tively). Following Diesing (1992), Diesing and Jelinek (1995) and much work since, the interpretational differences between specific and non-specific nominals can be treated as a consequence of their relative position with respect to an Existential Closure operator. The specificity effects discussed above follow if Existential Closure occurs immediately above *v*P (and below *n*P), such that *v*P-internal subjects remain in the scope of this operator. Any indefinite that receives an existential interpretation must be in the scope of Existential Closure. Moreover, since Existential Closure is taken to be unselective (Heim, 1982), any nominal that introduces a free variable and must not receive an existential interpretation, e.g. referring pronouns, must move out of its scope.

It is important to note that while specificity and case-marking are often linked, case-marking differences cannot be reduced entirely to the semantic property of specificity (*contra* e.g. Guntsetseg 2010, 2016). There are certain non-specific indefinites, namely those formed with the focus particle *-ch*, which can be non-nominative.[4]

(9)   Bi   [neg-č xün/xün-**ii**/$^\%$xün-**iig**   üx-sn]-iig   tüünd
       1.NOM ∃-FOC person.**NOM**/person-**GEN**/person-**ACC**) die-PAST-ACC 3.DAT
       xel-ee-güi
       say-IMPRF-NEG
       'I didn't say, for one or more persons who have died, that they died.'

In the presence of clause-mate negation, these indefinites receive an NPI interpretation. Crucially, in such environments, the subject can only bear NOM (10).

(10)   *Only* NOM *is possible on NPIs licensed by same-clause negation*
       Bi   [neg-č xün/*xün-**ii**/*xün-**iig**   Naraa-d
       1.NOM ∃-FOC person.**NOM**/*person-**GEN**/*person-**ACC** Naraa-DAT
       tusal-aa-güi]-g   čamd xel-sen
       help-IMPRF-NEG-ACC 2.DAT say-PAST
       'I told you that no one helped Naraa.'

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[4]One reason for the differential behavior of these indefinites could be that their existential force is contributed by the particle *-č* and thus they do not need to be in the scope of ∃-closure.

This restriction follows from the posited positional asymmetry between NOM and GEN/ACC subjects. The syntactic position of the negative morpheme *-gui*, when it appears in nominalizations, is structurally higher than *v*P, but, crucially, lower than *n*P. This is a direct consequence of the selectional properties of the morpheme, which is restricted to the verbal/clausal domain and cannot compose with nominals in the first place. As a result, only a *v*P-internal indefinite — which is NOM-marked — would be in the right position to display NPI-hood.

2.2.2 GEN *vs.* ACC

GEN and ACC subjects pattern together in most environments, but the availability of ACC on a subject, crucially, is limited to nominalizations in complement position. When the nominalized embedded clause appears in subject position, ACC is unavailable (11).

(11)   [Bat/Bat-**iin**/*Bat-**iig** xöl-öö   xogal-san]-n'   mede-gd-sen
        Bat.**NOM/GEN/*ACC** leg-REFL break-PAST-3.POSS know-PASS-PAST
        'That Bat broke his leg is known.'

This suggests that the licensing of ACC on embedded subjects depends on the presence of some higher-clause element. An ACC-marked subject has not, however, overtly raised into the higher clause, as argued to at length in Klein et al. 2012; von Heusinger et al. 2011 and Guntsetseg 2016. For instance, subjects of adjunct nominalizations can bear ACC (12).

(12)   Tujaa [**Bat-(iig)** jav-sn]-ii   daraa ir-sen
        Tujaa Bat-(ACC) go-PAST-GEN after come-PAST
        'Tujaa came after Bat went.'   (Guntsetseg 2016, p. 159, ex. 363)

Moreover, an ACC-mark subject cannot be interrupted from the rest of the nominalized clause by matrix elements (13) or stranded when the nominalized clause containing it undergoes scrambling (14). Thus, what we have here is not classical Raising-to-Object.

(13)   a.   Bi čonx-oor   [**šaar-iig**   xagar-ax]-iig xar-san
              I window-ABL [balloon-ACC pop-FUT]-ACC see-PAST

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'I saw the balloon pop through the window'

b. *Bi **šaar-iig**$_i$ čonx-oor   [t$_i$ xagar-ax]-iig   xar-san
   I   balloon-ACC window-ABL [pop-FUT]-ACC see-PAST
   Intended: 'I saw the balloon pop through the window'

(14)   a.   Bi [**Bat-iig** suglax-nd xož-sn]-iig   med-en
            I [Bat-ACC lottery-DAT win-PAST]-ACC know-DUR
            'I know that Bat won the lottery.'

       b.   [**Bat-iig** suglax-nd xož-sn]-iig   bi med-en
            [Bat-ACC lottery-DAT win-PAST]-ACC I know-DUR

       c.   *[t$_i$ suglax-nd   xož-sn]-iig   bi **Bat-iig**$_i$ med-en
            [lottery-DAT win-PAST]-ACC I Bat-ACC know-DUR

The resulting picture, then, is one where ACC-marked subjects must stay within the clause, but also establish a dependency with some higher clause element that licenses ACC-case. Given the phasehood of DPs, the only position where material internal to them are visible for operations outside the phase is the edge, i.e. [Spec, DP]. Therefore, I propose that ACC-case can be licensed only on nominals that move to this peripheral position. Thus, whereas both GEN and ACC-marked DPs have vacated their *v*P-internal position, ACC-subjects, by virtue of being at the DP-edge, are structurally higher than GEN-subjects.

For the purposes of this paper, it is not important how subject case is licensed, as long as the DP in question is forced to be at the phase-edge to receive ACC. Two prominent families of theories of case — head-licensing approaches (Chomsky, 1981, 2000, 2001) and configurational approaches (Baker and Vinokurova, 2010; Bittner and Hale, 1996; Levin and Preminger, 2015; Marantz, 1991) — make the same predictions regarding this requirement. Consider first theories that attribute case assignment to dedicated functional heads. ACC-case on embedded subjects may be thought as being exceptionally licensed by a higher-clause *v*. On a configurational approach, ACC case is a manifestation of *dependent case*, assigned to a DP if it is c-commanded by another DP within some local domain. ACC on embedded subjects could arise because the nominal in question may be in the same

case-competition domain as the higher-clause subject (Baker, 2015; Baker and Vinokurova, 2010). Importantly, on either approach, subjects receiving ACC must be local to some higher, clause-external element, either the higher *v* or the higher subject, a requirement that is met only by subjects at the phase-edge.[5]

To sum up, I have suggested that NOM-marked subjects of nominalized clauses remain within the *v*P domain, whereas GEN and ACC subjects occupy higher, derived positions. Because ACC-licensing requires that the relevant nominal be accessible to elements outside of the DP-phase, I proposed that ACC-subjects raise to Spec, DP. In the following section, I will argue that the availability of ACC case is a diagnostic of successive cyclicity in these nominalized clauses. The logic of the argumentation is as follows. Suppose a nominalized clause that otherwise permits ACC-subjects loses its ability to host such DPs when movement has taken place. This would indicate that the moving XP lands in [Spec, DP] on its way to its final landing site, in turn making this ACC-position unavailable for subjects.

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[5]There are both conceptual and empirical evidence that favors a configurational view of case. First, the fact that ACC often shows up twice — on a nominalized complement clause *and* its subject — is difficult to explain on a head-licensing view without further stipulations (e.g. case-spreading or multiple-agree). On the configurational view, this is unproblematic: the two relevant nominals, by virtue of being c-commanded by a higher nominal in the same case domain, meet the criteria for dependent ACC assignment. Second, as shown in (i), certain predicates like *get angry* cannot license Accusative case. However, as (ii) shows, when such a predicate takes a nominalized clause as its complement, the subject of that nominalization can nevertheless receive ACC case.

(i)   Naraa xüüxed-ed/*iig   uurla-san
           Naraa child-DAT/*ACC become.angry-PAST
           'Naraa got angry at the child.'

(ii)   Naraa [xüüxed-iig/*et bagš-iig-aa   xaz-san]-d   uurla-san
          Naraa [child-ACC/*DAT teacher-ACC-REFL bite-PAST]-DAT become.angry-PAST
          'Naraa got angry because the child bit his teacher.'

On a head-licensing approach, the head that assigns objective case would be one that is as unable to assign ACC. But if this is so, the availability of ACC on the embedded subject is surprising, given the absence of a suitable ACC-licenser in the verbal domain of the higher clause in the first place.

3   Successive cyclicity in nominalized clauses

My evidence relies on contrastive topicalization involving the marker *bol*. (15) shows that *bol*-topicalization reconstructs for binding. Anaphors in Mongolian must be c-commanded by a local antecedent, as shown by the ungrammaticality of (15-a); topicalization does not disrupt otherwise grammatical binding relations, as shown in (15-b) vs. (15-c).

(15)   *Reconstruction for Principle A*
      a.   *[Bat-iig suglax-nd   xož-san ge-deg]-d   öör-öö
           Bat-ACC lottery-sc dat win-PST C-HAB-DAT self.NOM-REFL
           it-deg-sen
           believe-HAB-PAST
           'Himself believed that Bat won the lottery.'

      b.   Bat [öör-iig-öö   suglax-nd   xož-san   ge-deg]-d   it-deg-sen
           Bat self-ACC-REFL lottery-sc dat win-PAST C-HAB-DAT believe-HAB-PAST
           'Bat believed that he won the lottery.'

      c.   [öör-iig-öö   suglax-nd   xož-san   ge-deg]-d   bol it-deg-sen
           self-ACC-REFL lottery-sc dat win-PAST C-HAB-DAT TOP believe-HAB-PAST
           'As for (the news) that he won the lottery, Bat believed it.'

The examples that follow illustrate the Ā-properties of topicalization, in particular island-sensitivity and the ability to take place long-distance. Relative clauses in Mongolian are introduced by a null relativizer, but word-order frequently makes clear that relativization has taken place (16). They are islands in this language, and as shown in (17), topicalization cannot take place out of them. Topicalization that violates the coordinate structure constraint is also banned (17-b). Finally, as shown in (17-c), topicalization can take place across a clause-boundary.

(16)   *Relative clauses in Mongolian*
      a.   Xün   ene zaxia-g   bič-sen
           person this letter-ACC write-PAST
           'A person wrote this letter.'

b. ene zaxia-g   bič-sen   xün
    this letter-ACC write-PAST hun
    'The person who wrote this letter.'

(17)   *Topicalization shows Ā-properties*
    a. *Ene zaxia-g   bol *t* bič-sen-∅   xün-iig   bi xar-san
        This letter-ACC TOP   write-PAST-REL person-ACC I saw-PAST
        Intended: 'As for this letter, I saw the person who wrote it.'

    b. *Ene zaxia-g   bol bi *t* bič-sen   bögööd tir zazia-g   unš-san
        This letter-ACC TOP I   write-PAST and   that letter-ACC read-PAST
        Intended: 'As for this letter, I wrote it and I read that letter.'

    c. ene zaxia-g   bol Bat [Naraa *t* bič-sen   gež] xel-sen
        this letter-ACC TOP Bat Naraa   write-PAST C   say-PAST
        'As for this letter, Bat said that Naraa wrote it.'

3.1   Topicalization from nominalizations

Constituents inside nominalized embedded clauses can be extracted by topicalization, but this movement interacts with subject case, whether or not it is the subject itself that is topicalized. First, if an embedded subject of a nominalized clause is topicalized, it must bear ACC case. The baseline in (18) shows that the subject of the nominalized clause can be marked NOM, GEN or ACC.[6] In (19), however, the embedded subject undergoes topicalization and only ACC is possible.[7]

(18)   Bi [Bat/[?]Bat-**iin**/[?]Bat-**iig**   ene nom-iig unš-sn]-iig   olč-med-sen
        I   Bat.**NOM**/Bat-**GEN**/Bat-**ACC** this book   read-PAST-ACC find.out-PAST
        'I found out that Bat read this book.'

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[6]There is a slight dispreference for the marked cases in the baseline example, due to adjacency to a marked object (see discussion in Guntsetseg 2016).

[7]If ACC is independently unavailable on the subject, e.g. when the clause is in subject position, topicalization does not change the situation. When the nominalization itself is in subject position and ACC is impossible, the next highest case available, i.e. GEN, is what shows up on the extracted subject.

(i)   Bat-iin/*Bat   bol xöl-öö   xogal-san-n'   mede-gd-sen
        Bat-GEN/*Bat.NOM TOP leg-REFL break-PAST-3.POSS know-PASS-PAST
        'As for Bat, it is known that he broke his leg.'

(19) Bat-**iig**$_i$/*Bat$_i$/*Bat-**iin**$_i$ bol bi [t$_i$ ene nom-iig   unš-sn]-iig
      Bat-**ACC**/Bat.**NOM**/*Bat-**GEN** TOP I   this book-ACC read-PAST-ACC
      olč-med-sen
      find.out-PAST
      'As for Bat, I found out that he read this book.'

Second, if a non-subject is topicalized, the embedded subject cannot bear ACC; compare

the ill-formed (a)-variants in (20) and (21), where the subject of the nominalization bears

ACC, to the (b) and (c) variants, where the subject is unmarked and GEN-marked, respectively.

(20) *Topicalization of direct object blocks* ACC *on subject*
      ene nom-iig$_i$ bol bi [Bat/Bat-**iin**/*Bat-**iig**   t$_i$ unš-sn]-iig
      this book-ACC TOP I   Bat.**NOM**/Bat-**GEN**/*Bat-**ACC**   read-PAST-ACC
      olč-med-sen
      find.out-PAST
      'As for this book, I found out that Bat read it.'

(21) *Topicalization of dative argument blocks* ACC *on subject*[8]
      Dorž-ed bol egč [$^{\%}$Bat/$^{\%}$Bat-iin/*Bat-**iig**   t$_i$
      Dorj-DAT TOP sister Bat.**NOM**/Bat-**GEN**/*Bat-**ACC**
      uurla-sn]-iig   nadad xel-sen
      become.angry-PAST-ACC 1.DAT say-PAST
      'As for Dorj, sister told me that Bat became angry at him.'

Finally, and strikingly, extraction of a constituent from an embedded nominalized clause

has ramifications for the case on the subjects of every intervening nominalized clause along

the path of movement. Specifically, the subjects of these intervening clauses cannot bear

ACC, even though movement did not originate from within them. The sentences in (22), for

example, involve the topicalization of a deeply embedded object nominal, but the variants

where *Bat* is marked ACC is unacceptable. Crucially, ACC on intermediate subjects is not

blocked in (22-b), which is identical to (22-a) except that no movement has taken place.

This asymmetry confirms that it is indeed topicalization from the lower clause that blocks

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[8]The acceptability of extracting a dative argument seems to be subject to speaker variation. However, to the
extent that a speaker finds it acceptable, there is still a contrast between an ACC-marked embedded subject
versus the others.

accusative case of the intermediate nominalized clause.[9]

(22)   *Topicalization blocks* ACC *on intervening subjects*

    Context: My mother hosted a potluck. After the potluck, she wants to know what dish was brought by whom. I'm trying to help her figure it out using whatever information I have available. I tell her that as far as the dumplings are concerned, I know that Naraa brought them. But about the horsemilk, I only have third-hand information, specifically:

    a.   eereg-iig   bol egč [$_{DP}$ ✓Bat /?Bat-**iin** /*Bat-**iig**   [$_{DP}$ Dolma t_i
         horsemilk-ACC TOP sister   Bat.**NOM**/Bat-**GEN**/*Bat-**ACC**   Dolma
         avčir-ex]-iig   xar-sn]-iig   nadad xel-sen
         bring-FUT-ACC see-PAST-ACC 1.DAT say-PAST
         'As for horsemilk, sister told me that Bat saw Dolma bring it.'

    b.   ✓egč [Bat-**iig** [Dolma eereg-iig   avčir-ex]-iig   xar-sn]-iig
         sister Bat.**ACC** Dolma horsemilk-ACC bring-FUT-ACC see-PAST-ACC
         nadad xel-sen
         1.DAT say-PAST
         'Sister told me that Bat saw Dolma bring horsemilk.'[10]

To capture this observed correlation between long-distance topicalization and subject case, I propose that in Mongolian nominalized clauses, there is a single edge position, Spec, DP, where any nominal that needs to be visible to phase-external operations must move. If there is a single edge position accessible to phase-external processes, and if this is also the

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[9]Given the correlation between subject case and specificity discussed in §2.2.1 and given that specificity is known to affect movement, one potential worry might be that the effects above are *semantic*: perhaps it is the case that (*i*) only specific nominals can move and (*ii*) specific nominals block movement over them. The example below, however, shows neither is the case. In (i), a non-specific object DP (the indefinite *xegen ayaga* 'some cups' has undergone topicalization over a specific subject (a proper name), *Naraa*.

(i)   a.   Naraa xeden ayaga ugaa-san
           Naraa some cups wash-PAST
           'Naraa washed some cups.'
    b.   [xeden ayaga]$_i$ bol Naraa t_i ugaa-san
           some cups   TOP Naraa   wash-PAST
           'As for some cups, Naraa washed them.'

[10]The complexity, including the multiple center-embeddings, makes this a rather unwieldy and unnatural sentence, which native speakers do not use in their everyday speech. Most crucial for us, however, is that it is grammatical and contrasts with the ungrammatical counterpart in (22-a).

only position in which the subject of a nominalized clause receives accusative case, the correlations discussed above are predicted and explained.[11]

3.2 Further evidence: Binding

A number of authors have argued that the binding domain for Condition A should be stated in terms of phases (Hicks, 2009; Lee-Schoenfeld, 2008; Safir, 2014): an anaphor can be bound outside of its own phase only if it is located at the edge of that phase. If what I have argued thus far is on the right track, we expect that only XPs that occupy [Spec, DP], i.e. ACC-marked subjects, are able to be bound by an element outside of the nominalization. Moreover, if movement out of a nominalization must proceed through [Spec, DP], as argued in the previous subsection, it is also expected that such cross-phasal binding can never co-occur with topicalization. Below, I show that these predictions are borne out.[12]

To express possession on a DP whose possessor is an element within the same sentence, Mongolian utilizes the reflexive possessive suffix *-AA* (subject to vowel harmony) (23).

(23) <u>Naraa</u> <u>najz-(iig)-aa</u>   ur'-san
      Naraa friend.NOM-(ACC)-REFL invite-PAST
      'Naraa$_i$ invited her$_i$ friend.'

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[11]One argument for uniqueness of the edge position in nominalizations comes from the unavailability of multiple topicalization from them, even though it is generally possible in the language. Consider the contrast between (a), in which two constituents have been topicalized from a simplex sentence, and (b), in which a minimally different clause appears as an embedded nominalization.

(i) a. Bat$_i$ bol Naraa-tai$_k$ bol [t_i t_k jix xerel-deg bai-sen]
         Bat TOP Naraa-COM TOP   big argue-HAB be-PAST
         'As for Bat and Naraa, he argued with her a lot.'
     b. *Bat-iig$_i$ bol Naraa-tai$_k$ bol [Dolma nadad [$_{DP}$ t_i t_k jix xerel-deg   bai-gaa]-g
         Bat-ACC TOP Naraa-COM TOP Dolma 1.DAT   big argue-HAB be-IMPRF]-ACC
         xel-sen]
         say-PAST
         Intended: 'As for Bat and Naraa, Dolma told me he argued with her a lot.'

[12]GEN-marked subjects seem to be marginally acceptable in cross-phasal binding configurations, contra to what is predicted. One possibility is that such cases involve smaller structures, e.g. a nP, which do not constitute a phase. Exploring this hypothesis in more details takes us too far afield, so at present, I will focus on the ACC vs. NOM contrast and leave the puzzle of GEN-subjects for later work.

Cross-clausal binding of a reflexive possessive-marked nominal inside a nominalized clause is possible, but in such cases, NOM is not possible (24). Moreover, if the antecedent is the subject of a higher nominalization, it *must* be NOM-marked. Thus in (25), the subject of the intermediate embedded clause, which binds the reflexive possessor-marked subject of the most deeply embedded nominalization, cannot appear with GEN or ACC case.

(24)   Bat [najzč-**iig**-ee/*egč-ee   ene noxoi-g   šalga-sn]-iig
       Bat friend-**ACC**-REFL/*friend.**NOM**-REFL this dog-ACC examine-PAST-ACC
       olč-med-sen
       find.out-PAST
       'Bat found out that his friend examined this dog.'

(25)   Bi   [DP Bat/*Bat-**iin**/Bat-**iig**   [DP nayz-iig-ee   ön-sn]-iig
       1.NOM   Bat.**NOM**/*Bat-**GEN**/*Bat-**ACC**   friend-ACC-REFL fall-PAST-ACC
       olč-med-sn]-iig   son-san
       find.out-PAST-ACC hear-PAST
       'I heard that Bat$_i$ found out that his$_i$ friend fell.'

What these patterns show is that reflexive-possessive binding in Mongolian requires a highly local relation between the antecedent and the reflexive. In (25) for example, the only way for this relation to be successful is if the antecedent remains within the higher *v*P phase, and the anaphor is at the edge of the lower phase, [Spec, DP].

Crucially, topicalization out of a nominalized clause makes binding of a possessed subject impossible. As we see in (26), irrespective of the case morphology on the subject, reflexive possessor-marking renders the construction ungrammatical. The way to rescue this structure is by the use of the non-anaphoric third person pro-form *-n'*, as shown in (27).

(26)   *ene noxoi-g$_k$ bol Bat [nayz(-**iig**)-ee   t$_k$ šalga-sn]-iig   olč-med-sen
       this dog-ACC TOP Bat friend-(ACC)-REFL   examine-PAST-ACC find.out-PAST
       Intended: 'As for this dog, Bat$_i$ found out that his$_i$ friend examined it.'

(27)   ene noxoi-g$_k$ bol Bat [nayz-n'   t$_k$ šalga-sn]-iig   olč-med-sen
       this dog-ACC TOP Bat friend.NOM-3POSS   examine-PAST-ACC find.out-PAST
       'As for this dog, Bat$_i$ found out that his$_{i/j}$ friend examined it.'

These data thus corroborate the present account. Movement out of nominalizations always proceeds through [Spec, DP], disrupting any other process requiring the use of the edge.

4 Conclusions

In this paper, I presented novel evidence from Mongolian nominalizations that extraction out of DPs involves intermediate movement through every phase edge on the way to the landing site, making DPs no different from CPs or *v*Ps with regard to successive cyclicity. More generally, these data point to a perspective on phases where there are no fundamental asymmetries across phasal categories with regard to the availability of a landing site for intermediate movement. Of course, even in Mongolian, extraction from other kinds of DPs tends to be harder than from CPs and *v*Ps, a fact that calls for explanation. But it is beyond the scope of this paper to delimit the conditions under which extraction is possible. What I hope to have shown is that when movement out of a DP is possible, it happens in the same way as movement out of CPs and *v*Ps — in a series of short steps. Having established that, the next step is to identify general architectural or language-specific properties that make movement out of DPs much more severely constrained than movement out of these other phases.

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