A Minimalist analysis of Uyghur genitives

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Abstract

This paper investigates the syntactic structure of so-called genitive-possessive DPs in Uyghur, a Turkic language. Uyghur genitive-possessives bear suffixes on both the "possessing" entity (comparable to the Saxon genitive *'s* in English) and the "possessed" one. The suffix on the "possessor", -*ning*, is considered a genitive case marker; the suffix on the "possessed" has multiple allomorphs and is considered an agreement marker that agrees in person and number with the "possessor". Based on the multiplicity of semantic roles that the "possessing" object may bear, and the observation that it may be dropped from the DP, an analogy is made between genitive-possessive DPs and finite TPs. It is proposed that "possessors" behave in a manner parallel to that of subjects of TPs: they are introduced by a quasi-functional head *n* or within a gerund, and raise to [Spec,DP] to receive genitive case from D. The agreement suffix, on the other hand, is treated as the phonological realization of an Agr head that is introduced with unvalued *phi*-features, features which are valued when the "possessing" entity passes through the specifier of AgrP. Adopting this structure can explain data on the realization of definiteness in genitive and non-genitive DPs, and the distribution of adverbials within gerunds.

1 Introduction

One of the key components to a theory of noun phrase structure is an explanation of how possessive marking is carried out within the DP. For example, a theory of English DPs owes an explanation of where the *'s* comes from in phrases like "John's book", and how case-checking is done in such a phrase. Turkic languages present an interesting case with regards to DPs, since they include what are called "genitive-possessive" constructions: both the *possessor* and the *possessed* objects bear affixes. Thus, in these languages, DPs must have the proper apparatus to produce not just one, but two morphological realizations of possession. This paper addresses that issue in one Turkic language, Uyghur, which is spoken in western China and Central Asia.

§2 presents the basic properties of genitive-possessive DPs in Uyghur. §3 offers a proposal for how case and agreement checking is carried out within these DPs. §4 demonstrates how this analysis can account for deverbal, argument-selecting nouns. §5 offers some brief conclusions, and identifies topics for future study.

2 Syntactic and semantic properties

2.1 Morphological marking and agreement

In Uyghur genitive-possessive DPs, both the "possessor" and the "possessed" bear affixes. The "possessor" bears the general affix -*ning*, which is traditionally analyzed as a Genitive Case suffix. The "possessed" bears a suffix which agrees in person and number with the possessor, and has been called an "*ownership-dependent* category marker" (Tömür 1987, p. 51), a "*possessive*

suffix" (de Jong 2007; Dede 1978, p. 26), or an "*agreement* suffix" (van de Craats, Corver, and van Hout 2000, p. 243). The behavior of this suffix (glossed as AGR throughout this paper) is illustrated below. Examples (1a-c) demonstrate that the AGR suffix must agree with the possessor. Example (1d) demonstrates that it does not agree in number with the possessed—in other words, that if the possessor is singular and the possessed is plural, the AGR suffix is singular. Examples (2a-d) demonstrate the same points using a different pronoun and a full noun. Table 1 shows the agreement paradigm for the AGR suffix.[1]

(1) a. *më-ning alma-m*
         me-GEN apple-AGR.1s
         "my apple"

     b. * *më-ning almi-miz*
         me-GEN apple-AGR.1p

     c. * *më-ning almi-si*
         me-GEN apple-AGR.3s

     d. *më-ning almi-lir-im*
         me-GEN apple-PL-AGR.1s
         "my apples"

(2) a. *biz-ning almi-miz*
         us-GEN apple-AGR.1p
         "our apple"

     b. *biz-ning almi-lir-imiz*
         our-GEN apple-PL-AGR.1p
         "our apples"

     c. * *biz-ning almi-lir-im*
         our-GEN apple-PL-AGR.1s

     d. *Mehmud-ning almi-si*
         Mehmud-GEN apple-AGR.3s
         "Mehmud's apple"

2.2 Semantic roles and the interpretation of "possession"

Although the preceding introduction used the terms "possessor" and "possessed" to indicate the nouns marked with the GEN and AGR suffixes, in reality the nouns do not always perform these roles. The genitive-possessive construction may also indicate kinship (3a), association (3b), an undergoer-action relationship (3c), or other roles.

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[1]Uyghur phonology has a complicated system of vowel changes including vowel reduction, vowel deletion, epenthesis, and vowel harmony. Therefore, in the examples throughout this paper, sometimes root forms will change slightly depending on the suffix, or sometimes the suffix will change slightly depending on the root. In the forms presented in Table 1, a capital letter represents an underspecified vowel that may surface in one of several forms (or not at all) depending on the segmental context. These phonological operations do not signal any change in meaning. For a more in-depth discussion of Uyghur phonology, see the introductory chapters of Engsæth et al. (2009) and Hahn (1991).

	Singular	Plural
1st	*-Im*	*-Imiz*
2nd familiar	*-Ing*	*-Inglar*
2nd formal	*-Ingiz*	
3rd	*-(s)i*	

Table 1: Table 1: Agreement paradigm for Uyghur AGR suffix.

(3) a. *Rene-ning ati-si*
          Rene-GEN father-AGR.3s

     b. *Rene-ning ders-i*
          Rene-GEN class-AGR.3s

     c. *Rene-ning vapat-i*
          Rene-GEN death-AGR.3s

This suggests that "possessor" is a syntactic notion, rather than a semantic one: a noun that occupies a certain point in the syntactic structure bears [gen] case and is interpreted as the structural "possessor". This is similar to the behavior of sentential subjects, which can bear any number of theta-roles (θ-roles) but always appear in a particular location ([Spec,TP] in English) and bear nominative case. Because of this variation in semantic roles, for the remainder of this paper I will avoid the terms "possessor" and "possessed" for these constituents at the surface, and instead use the terms "DP-subject" and "head noun" to refer to the nouns marked with the GEN and AGR suffixes, respectively. The reason for my use of the term "DP-subject" to refer to nouns marked with *-ning* is that their structural position is parallel to that of sentential "TP-subjects", as I will argue in §3.

If a noun does not bear [gen] case, it is not interpreted as a DP-subject or "possessor" (whatever the actual semantic role of "possessor" is). In Uyghur there is a set of noun-noun compounds in which the second noun is marked with AGR but the first noun is not marked with GEN as would be expected in a normal genitive-possessive phrase (de Jong 2007, pp. 41–2). These are compounds in which the two nouns are have a close inherent relationship, usually because the phrase is a proper name (4) or because it signifies a particular subtype of the AGR-marked noun (5); these cases appear to be limited to compounds where the first noun is third-person singular:

(4) a. *Tarim oymanliq-i*
          Tarim basin-AGR.3s

          "the Tarim basin"

     b. *Azadliq   yol-i*
          Liberartion street-AGR.3s

          "Liberation Avenue"

     c. *Döngkövrük bazir-i*
          Döngkövrük bazaar-AGR.3s

          "Döngkövrük Bazaar"

     d. *Kentucky ashxani-si*
          Kentucky restaurant-AGR.3s

          "Kentucky Fried Chicken" (lit.: "Kentucky restaurant")

(5) a. *kala gösh-i*
         cow meat-AGR.3s
         "beef"

     b. *qol somki-si*
         hand bag-AGR.3s
         "handbag"

     c. *partiye nizamnami-si*
         party constitution-AGR.3s
         "party constitution"

These phrases, as predicted, are not interpreted as "possessive" and do not correspond to possessive phrases in English, further suggesting that it is the GEN suffix *-ning* rather than the AGR suffix that generates this interpretation.

2.3 Distribution of DP-subjects and suffixes

In genitive-possessive constructions, the GEN-marked DP-subject may be omitted. This is best illustrated in constructions where the DP-subject is a first- or second-person pronoun, since the referents for those pronouns are unambiguous. In the case of third-person, if a third-person DP-subject is omitted then the construction gets its referent from the preceding discourse, as shown in (7b).

(6) a. *(Më-ning) ata-m   bek ëgiz.*
         (me-GEN) father-AGR.1s very tall
         "My father is very tall."

     b. *(Biz-ning) ati-miz   bek ëgiz.*
         (me-GEN) father-AGR.1s very tall
         "Our father is very tall."

     c. *(Siz-ning) kitab-ingiz   qiziq-mu?*
         (you-GEN) book-AGR.2s interesting-INTER
         "Is your book interesting?"

     d. *(Siler-ning) kitab-inglar qiziq-mu?*
         (you-GEN) book-AGR.2s interesting-INTER
         "Is you guys' book interesting?"

(7) a. *Mehmud-ning ders-i   uzaq.*
         Mehmud-GEN class-AGR.3s long
         "Mehmud's class is long"

     b. *Mehmud tëxi kel-mi-di.   Ders-i   uzaq.*
         Mehmud still come-NEG-PAST.3s class-AGR.3s long
         "Mehmud has not arrived yet. His(Mehmud's) class is long."

The DP-subject is more likely to be kept if it is to receive focus (for the purpose of contrast, or to refer specifically to the possessor) or, in the case of third-person genitives, to bring in a DP-subject that is not present or not most recent in the preceding discourse (i.e., to bring in a full DP).

There are also constructions in which one or the other of the relevant suffixes is dropped. The preceding section demonstrated "non-genitive" compounds in which AGR marking appears but there is no GEN marking; when GEN marking does not appear, the compound is not interpreted as a genitive-possessive phrase. On the other hand, under limited circumstances, the AGR suffix may be dropped without losing the possessive interpretation. For instance, in informal speech the AGR suffix is sometimes dropped and a pronominal DP-subject with [gen] case pronounced:

(8) *biz-ning öy*
     us-GEN house
     "our house"
     (Example from Engsæth et al. (2009, p. 117); see also De Jong (2007, p. 39))

Turkish (but not Uyghur) allows the AGR suffix to be dropped in situations where the emphasis is on "identity, not possession" (Dede 1978, p. 26):

(9) *biz-im Ankara*
     us-GEN Ankara
     "our Ankara" (the Ankara that we know)
     (Example from Dede (1978, p. 27))

These observations suggest that [gen] case is more important to the interpretation than AGR marking, and that the latter is only a syntactic reflex. The following section will elaborate on what these two suffixes represent, what contribution they make during the derivation, and where they originate from.

3   Case checking and agreement marking in genitive-possessives

I propose that the derivation of Uyghur genitive-possessive DPs is parallel to that assumed for simple TPs, and that the head noun functions structurally like the verb of a TP and the DP-subject functions like the TP-subject. This comparison is motivated by the phenomenon of DP-subject dropping described above, and its similarity to TP-subject dropping at the sentence level (i.e., *pro*-drop).

Uyghur verbs bear inflection that, in present and past perfect, agrees in person and number with the subject. In such cases, the subject may optionally be dropped:

(10) *(Men) bügün tash kördüm.*
      (I)   today rock saw
      "Today (I) saw a rock."

The subject is less likely to be dropped (more likely to be pronounced) if it is receiving focus or bringing in a new discourse referent—in other words, under the same conditions that the DP-subject in a genitive-possessive DP is less likely to be dropped; this parallel has been noticed at least as early as Nilsson (1985, p. 151). It seems that there is a division of labor between inflection (verbal conjugation or AGR marking) and the overt nominal (the subject of TP or DP). The inflection identifies some characteristics of the subject of an event or DP-subject of a noun, specifically its person and number. The overt nominal, on the other hand, names the referent specifically, either directly in the case of nouns or indirectly in the case of pronouns. If naming

the referent overtly is not necessary because the referent is already obvious from the inflection, the overt nominal might not be used.

I will adopt this analogy between TP-subjects and DP-subjects and, for the remainder of the paper, see how far it can go towards explaining the behavior of Uyghur genitive-possessives.

3.1 Case checking

We will assume that just as the subject in a TP is brought in by quasi-functional head v, the subject in a DP is brought in by a quasi-functional head n, which takes NP as its complement. (For now we will assume that the head noun is a fully-formed NP; the following section will discuss heads that are gerunds with internal structure of their own.) We further assume that, like many languages' TP-subjects, Uyghur DP-subjects raise to [Spec, D], while head nouns adjoin to n and possibly to D. Just as TP-subjects receive [nom] case from T, DP-subjects will receive [gen] case from D. A simple tree is shown below; arrows denote movement (copying):

(11)   a. *Mehmud-ning ati-si*
           Mehmud-GEN father-AGR.3s
           "Mehmud's father"

    b.
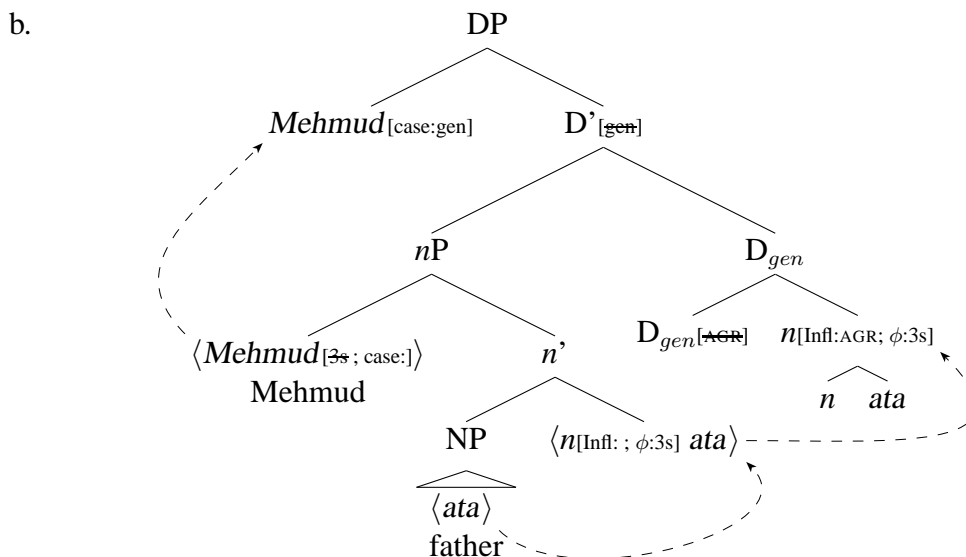
This DP is derived as follows:

- The NP *ata* ("father") is selected as a complement by n. Uyghur is a specifier-first, head-final SOV language (similar to Turkish (van de Craats, Corver, and van Hout 2000, p. 233) and Japanese (Koizumi 1995; Fukui and Sakai 2003)), so n is merged on the right.

- n introduces *Mehmud* as its specifier, to fill a c-selectional requirement ([uD]) and to get its *phi* features (ϕ features) valued; the head noun *ata* raises and adjoins to n and hosts that head's inflection. The ϕ features on n are valued as third-person singular ([3s]), but the phonological interface does not know how to pronounce those features unless it also knows what inflection they are specifying, and n's inflectional feature is still unvalued ([Infl:]).

- *n*P is becomes the complement of D$_{gen}$,[2] a null D that grants [gen] case and AGR inflectional features. *Mehmud* raises to [Spec,D] to receive the [gen] case, which will be pronounced as *-ning* thanks to morphophonological interface rules. Likewise, the whole *n* complex raises to adjoin with D to have its inflectional features valued. AGR inflection with [3s] ϕ features will be pronounced as *si* on the only potential host, *ata.*

In this schematic, I suppose a quasi-functional projection *n*P. This sort of structure from the view taken by van de Craats and colleagues (2000), who posit that the DP-subject is originally merged as the complement of the head noun and later raises out of NP. I adopt the *n*P analysis instead since it is analogous to the *v*P hypothesis for clauses. Just as *v* both introduces an argument and facilitates subject-verb agreement by hosting that argument's ϕ features and the inflectional features from T, so does *n* introduce an external "argument" (if the DP-subject can be considered an argument of the noun—i.e., its possessor, relative, associate, undergoer, etc.) and allow agreement through the same mechanisms.[3]

In the previous section we raised the question of where exactly the locus of the "possessive" interpretation is. According to the theory presented here, that should be the D head. That is the head that brings in the interpretable [gen] feature and values *n* as [Infl:AGR]—just as T values verbal inflection and thus is the locus of tense. *n* does not give rise to "possessive" interpretation, it merely introduces an "external argument" and acts as the locus of agreement by hosting ϕ and inflectional features. If D$_{gen}$ (and the phonological reflex of its [gen] feature, *-ning*) is responsible for possessive interpretation, however, how can we observe a possessive interpretation for phrases that lack a DP-subject and lack the GEN marker *-ning*, such as the examples in (6–7)? Here we can stipulate that *n* may, when the discourse allows it, introduce a phonologically null external argument (*pro*, or its DP-phase equivalent). That null argument raises to [Spec,DP], is interpreted as the DP-subject, and bears [gen] case as usual, but since is has no pronounceable content its [gen] case is also phonologically null. Thus, such phrases still contain a D$_{gen}$, it is just not pronounced.

3.2 Agreement marking

By supposing that the DP-subject (*Mehmud* in this example) raises to [Spec,DP], we can also explain differences between this construction and the non-genitive compound nouns shown in example (5), one of which is repeated here as (12b):

(14) a. **Genitive-possessive**:

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[2]Throughout this paper, DP is shown as being head-final, like the rest of the XPs in Uyghur. The location of demonstratives and articles in Uyghur, however, raises questions about where D is actually located:

(12) *më-ning bu   kitab-im*
      me-GEN this book-AGR.1s
      "this book of mine"

(13) *më-ning bir   kitab-im*
      me-GEN one book-AGR.1s
      "a book of mine"

There is not yet a satisfactory account of these phenomena, and thus in this paper I remain agnostic about the location of D.

[3]The use of *n*P for genitives is not without controversy. See, e.g., the discussion in Lindauer (1998) regarding German.

> *partiye-ning nizamnami-si*
> party-GEN   constitution-AGR.3s
>
> "the party's constitution"; "the constitution of the party"

b. **Non-genitive**:

> *partiye nizamnami-si*
> party   constitution-AGR.3s
>
> "party constitution"

Nilsson (1985), discussing Turkish, attributes this difference to referentiality. That is to say, the difference between (12a) and (12b) is that the first refers to a specific party, whereas the second simply describes the type of constitution as a "party" constitution, without adopting any specific referent. The projection of D is, in essence, the locus of referentiality: it is an interface between the lexical item and the real world. Therefore, it makes sense that in the genitive-possessive, which does have a specific referent in the world, the DP-subject is in the DP layer, whereas in the non-genitive the left constituent is not in DP (and thus not a DP-subject). Whether or not the noun *partiye* is in [Spec,DP] can be shown using *bir*, which literally means "one" but also functions as an indefiniteness marker, much like the English indefinite article "a", and thus probably occupies D:

(15)   a.   * *bir* [*partiye-ning nizamnami-si*]
             one party-GEN   constitution-AGR.3s

             (intended: "a [the party's constitution]")

       b.   [*bir partiye*]-*ning nizamnami-si*
             one party-GEN   constitution-AGR.3s

             "[a party's] constitution"

       c.   *partiye-ning bir nizamnami-si*
             party-GEN   one constitution-AGR.3s

             "a constitution of the party's"

(16)   a.   *bir* [*partiye nizamnami-si*]
             one party   constitution-AGR.3s

             "a party constitution"

       b.   * *partiye bir nizamnami-si*
             party   one constitution-AGR.3s

In the examples above, (13a) shows that a normal genitive-possessive cannot be further modified by an article, suggesting that it is already referential (i.e., that its D is already saturated). If an article precedes the construction, the only possible interpretation is the one where the article is within the innermost DP (the DP-subject), as shown in (13b). The full DP can be made indefinite by putting the article *after* the DP-subject (13c).[4] On the other hand, (14a) shows that the non-genitive phrase

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[4]This observation raises the question of where in the structure D is located. If *bir* "one" is an indefinite article, we might assume that it is in D, but that would mean that D is merged head-initially in an otherwise head-final language; it would also preclude the NP-raising-to-D analysis used here, and prompt the question of how D can assign [gen] case if it is occupied by an article and thus not occupied by a null head D_{gen}. One alternative explanation is that *bir* is not actually in D, but is the head or specifier of some NumP, and passes its indefinitess feature up to D. In this article I will remain agnostic about the representation of indefiniteness and possible structure of NumP in Uyghur.

can easily take an article, and (14b) shows that the article does not follow the "subject" as it does in the genitive-possessives; therefore, *partiye* in the non-genitive phrase has probably not risen to [Spec,DP] (since there is still space to its left to add an article or number). The observation that true genitive-possessives have a an NP that has risen to [Spec,DP] projection and that non-genitives do not is further evidence that [gen] case marking, -*ning*, is assigned by D.

It appears, that non-genitive possessives bear AGR marking even when the genitive feature of D is unrealized (since nothing is in [Spec,DP]). AGR, then, apparently does not come from D. There must rather be some intermediate projection (which I will call AgrP, following Pollock's (1989) proposal for the verbal Agr projection) that supplies the [AGR] inflectional feature. Separating D and Agr in this manner may explain how AGR marking can appear without GEN and without giving rise to possessive interpretation. It also allows us to simplify the derivation shown above by postulating that the Agr head itself is pronounced as the AGR suffix; thus, rather than posit that the head noun raises to adjoin to *n* and D to get an inflectional feature valued and that the presence or absence of a suffix is the phonological reflex of an inflectional feature, we can simply assume that the presence or absence of a suffix is determined by the presence or absence of AgrP. The phonological content of Agr is unspecified until the DP-subject moves through its specifier, at which point specifier-head agreement fills in the ϕ-features of Agr and tells the phonological interface how to pronounce the AGR suffix. This is, admittedly, an area where the strict DP-TP analogy breaks down (as subject-verb agreement in TPs is often thought to operate by letting T value an inflectional feature on *v* from afar), but it yields the correct output in a simpler manner. A modified version of tree (11), using AgrP, is shown below:

(17)
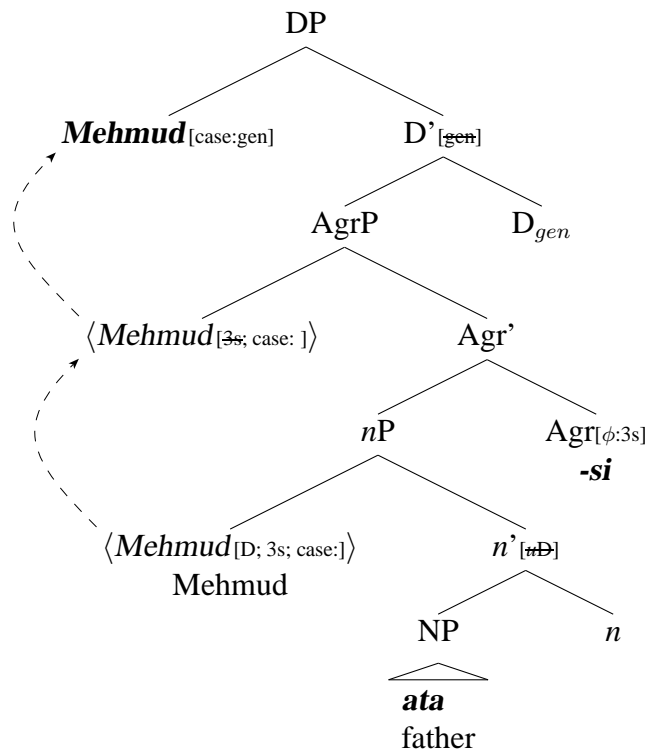
Usually GEN and AGR marking co-occur, so one might wonder how to ensure that behavior in this schematic. We can stipulate that D_{gen} optimally selects an AgrP, rather than an *n*P, as its

complement; this would explain why AGR co-occurs with GEN even though D itself doesn't supply AGR marking. A non-genitive D selects an *n*P directly; with no AgrP there is no AGR suffix, which is the correct prediction for bare nouns. Furthermore, even though GEN and AGR marking *usually* co-occur, the fact that they may each occur indepedently under special circumstances (see examples (4–5) for independent AGR, and (8) for indepedent GEN) suggests that there is some empirical value in separating the two. This behavior can be allowed if we assume that under some circumstances D$_{gen}$ may select an *n*P instead of an AgrP, thus yielding a DP with GEN marking but no AGR marking. Informal genitives (lacking AGR) and non-genitive possessives (lacking GEN) would be difficult to account for without positing an independent AgrP.

4 Argument-selecting nouns

In English syntax, DP structure must also be able to explain the derivation of argument-selecting nouns such as these:

(18) a. ...the doctor's <u>examination</u> of the patient...

     b. ...the Mamluks' <u>victory</u> over the Mongols...

     c. ...the Allies' <u>liberation</u> of France...

     d. ...John's <u>gift</u> of a romantic CD to Mary...

As Uyghur is a highly inflected language, it has few argument-selecting nouns that are fully lexicalized like these. Most of its argument-selecting nouns are actually gerunds that formed with productive affixes and are clearly deverbal, formed with either a general nominalizer suffix (glossed NZR) or with a gerund suffix (glossed GER)[5]:

(19) a. *siz-ning alma-ni   <u>yë-gen-lik-ingiz</u>*
        you-GEN apple-ACC eat-PERF-NZR-AGR.2s
        "your eating of the apple"

     b. *më-ning Nur-ni   <u>öltür-gen-lik-im</u>*
        me-GEN Nur-ACC kill-PERF-NZR-AGR.1s
        "my killing of Nur"

(20) a. *siz-ning alma-ni   <u>yë-yish-ingiz</u>*
        you-GEN apple-ACC eat-GER-AGR.2s
        "your eating of the apple"

     b. *më-ning Nur-ni   <u>öltür-üsh-üm</u>*
        me-GEN Nur-ACC kill-GER-AGR.1s
        "my killing of Nur"

Cases like these can be accounted for with no change to the theory of DPs outlined above. We can simply assume that the gerund is first formed as a VP and the nominalizing suffixes *-lik* and

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[5]A notable exception is words for death, *vapat* and *öl*, which do not seem to be immediately deverbal. (*Vapat* is turned into a verb by being put in a verb phrase, as in *vapat bolmaq* "to be dead", and *öl* is turned into a verb by adding verb inflection, as in *ölmek* "to die"; typical deverbal nouns, on the other hand, show the opposite pattern: a nominalizer or gerundizer is added to the verb to make a noun.) But since the event these nouns describe is unaccusative and only takes one argument, they can't be subjected to the same sort of analysis as the English examples above. (That is to say, we can only have "John's death", not *"my death of John".)

-sh[6] convert it into an NP. The nominalized verbal projection either does not include a TP (which is what Asarina (2009) assumes and what I assume here), or its T is defective (unable to assign case); therefore, the subject of the verbal projection does not receive [nom]. Adopting Hornstein's (1999) movement hypothesis, we assume that this subject must then raise to [Spec,DP] to receive [gen] case, possibly occupying [Spec,*n*P] on the way there. This sort of movement would explain why AGENTs of gerunds bear [gen] case and why they have two syntactic roles, TP-subject ("doer" of the verb) and DP-subject (case-marked "possessor" of the noun); furthermore, Asarina (2009) identifies independently motivated reasons to assume that gerund subjects are moved out of their original position and into [Spec,DP]. The GEN marking on the DP-subject means the D head must be D_{gen}, which also explains why the gerund itself bears AGR marking (assuming again that D_{gen} optimally selects an AgrP). This mechanism is demonstrated in the example below.

(21)   a. [*siz-ning* [*Nur-ni   öltür-gen*]-*lik-ingiz*]-*ni*   *bil-dim*
              you-GEN Nur-ACC kill-PERF-NZR-AGR.2s-ACC know-PAST.1s

             "I found out that you killed Nur." (lit.: "I found out your killing of Nur.")

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[6]The precise status of *-lik* and *-sh* is unclear. Asarina (2009, p. 11), for instance, considers them allomorphs, whereas Tömür (1987) and de Jong (2007) treat them as different gerund types and catalogue slightly different uses for each. The following discussion will only consider *-lik* gerunds, but can be generalized to *-ish* gerunds as well. See Asarina (2010, 2009) for a more in-depth discussion of the distributional differences between these.

b.
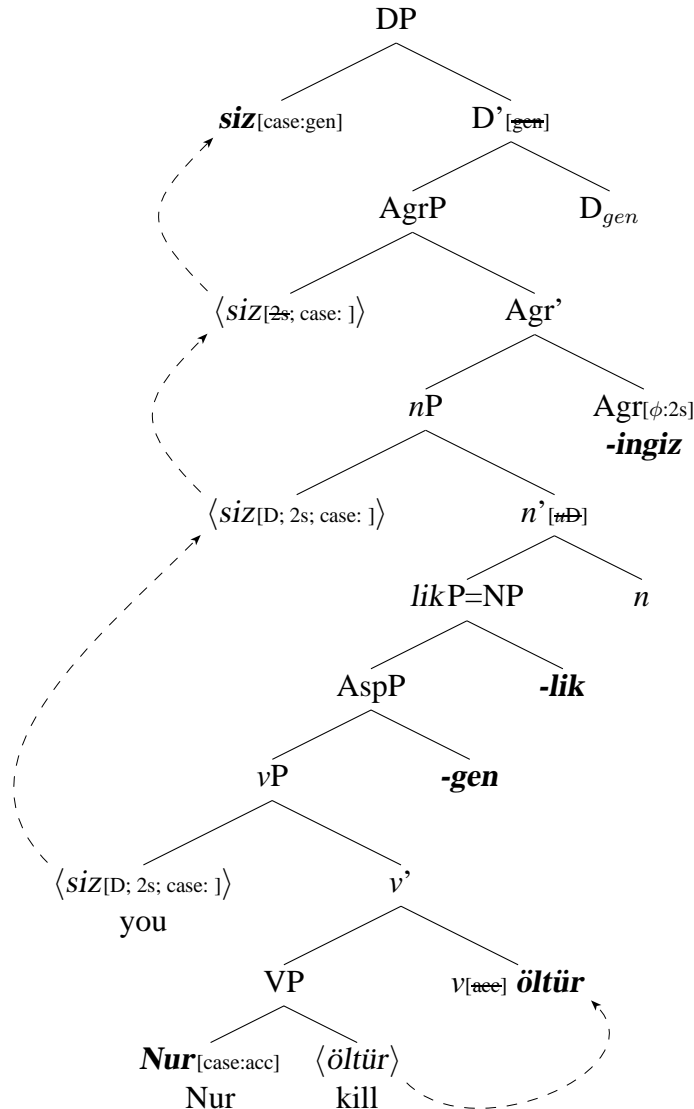
In (19b), the lexical shell of the verb *öltür* "kill" is constructed with *Nur* as its THEME and *siz* "you" as its AGENT. The THEME is able to receive [acc] case from *v*. The verb raises to *v*. Next Asp is added, and the full AspP is selected by *-lik* to form a gerund (*-lik*P or NP).The TP-subject *siz*, which has not received case since no T was ever merged, raises to [Spec,*n*P][7] and then behaves like the DP-subject in (15), passing through [Spec,AgrP] to value the ϕ-features on Agr and ultimately receiving case from D$_{gen}$.

Many gerunds also allow the subject not to bear [gen] case:

(22) *Qiz-(ning) kël-ish-i   muhim.*
      girl-(GEN) come-GER-AGR.3s important

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[7]An alternate possibility is that no *n*P is included in this form, since the purpose of *n*P is to introduce a new external argument and in this example all arguments have also been introduced by VP and *v*P; I thank Sara Rosen for pointing out this argument. In the present example I assume that *n*P is still introduced and *siz* "you" passes through it, which is what allows this word to perform "double duty" as both the subject of the verbal phrase and the GEN-marked subject of the nominal. The question of whether *n*P is necessary in Uyghur gerunds, though, is worthy of further consideration.

"It is important for a girl to come." (lit: "A girl's coming is important.")
(Example from Asarina (2010, p. 1))

Here I will simply assume that the non-genitive versions of these gerunds are formed by not raising the subject to [Spec,DP], either leaving it caseless, assigning its case from a matrix T (i.e., raising it all the way out of the DP), or including a T within the gerund. These structures and their semantic/pragmatic interpretations are discussed in more detail by Asarina (2010, 2009).

The structure given above makes the right predictions about the location of adverbials within gerunds. In matrix clauses, adverbials have relatively free word order relative to the rest of the sentence—they must precede the verb, but they can either precede or follow the subject (21a,b). On the other hand, in gerunds, adverbials may not precede the subject (22b):

(23) a. *Siz <u>tünügün</u> Nur-ni öltür-dingiz.*
          you yesterday Nur-ACC kill-PAST.2s
          "You killed Nur yesterday."

      b. *<u>Tünügün</u> siz Nur-ni öltür-dingiz.*
          yesterday you Nur-ACC kill-PAST.2s
          "Yesterday you killed Nur."

(24) a. [*siz-ning <u>tünügün</u> Nur-ni öltür-gen-lik-ingiz*]*-ni*   *bil-dim*
          you-GEN yesterday Nur-ACC kill-PERF-NZR-AGR.2s-ACC know-PAST.1s
          "I found out that yesterday you killed Nur."

      b. * [*<u>Tünügün</u> siz-ning Nur-ni öltür-gen-lik-ingiz*]*-ni*   *bil-dim*
          you-GEN   yesterday Nur-ACC kill-PERF-NZR-AGR.2s-ACC know-PAST.1s
          (only interpretation possible is "I found out yesterday that you killed Nur")

Given that the verb's external argument becomes a DP-subject and raises to [Spec,DP], this ordering is what we would expect: no matter where in the gerund the adverbial is adjoined (whether it's *v*P- or TP-adjoined), the subject will precede it after raising, and the DP has no position that can ever precede [Spec,DP]; thus, the adverbial will never precede the subject.

5   Conclusion

This paper proposes that Uyghur genitive DPs, which bear case on the "possessor" and agreement on the "possessee", are derived in a fashion analogous to that of TPs, which bear case on the subject and agreement on the verb. In the account described here, the GEN suffix *-ning* is the phonological realization of a [gen] case feature assigned by a null determiner D_{gen}, and the various AGR suffixes are phonological realizations of a head Agr that bears the ϕ-features of the DP-subject that has passed through its specifier. Gerunds are formed in a similar fashion, only the DP-subject is not initially introduced by *n*P but is raised out of a nominalized TP. This account explains several distributional phenomena, including the location of adverbs within gerunds and the presence or absence of definiteness in genitive-possessive and non-genitive phrases, and makes a strong prediction that nothing in the DP will precede the DP-subject.

This analysis can gracefully account for both simple genitive-possessives and deverbal gerunds. It will be worthwhile in future investigations to examine how numbers, demonstratives, quantifiers, and numeral classifiers interact with the affixes discussed here, to further elucidate the internal structure of the DP.

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