The Syntax of Reflexive Binding in Mongolian[1]

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Abstract

The Standard Binding Theory predicts that anaphors are the hallmark of reflexivity as well as binding and this is indeed the case for many languages. However, in Mongolian, reflexivity and binding do not require an anaphor be present as an overt marker. The hallmark of reflexive binding in Mongolian is the reflexive-possessive suffix *-aa* instead. In many ways, *-aa* displays properties of Binding Principle A on the one hand and has an important implication that reflexivity is a more general notion than formerly identified on the other hand. The specific proposals in this paper are as follows. **First**, reflexivity, which is conditioned by binding, is a Spec-Spec (subject-subject or subject-possessor) relation, rather than a Spec-Comp (subject-object) relation. **Second**, reflexive binding is not simply a dependency between clausemates but a dependency between Specs in a local domain. **Third**, [phi] on D as a bare phrase in Spec of the possessive D head is valued by that on a local subject, instantiating Agree as binding. **Fourth**, anaphors are formed in a unified way — the portmanteau fashion. **Fifth**, a first phase derivation comes into play in forming and interpreting anaphors, especially body(part) anaphors.

Keywords Binding, reflexive, possessive, anaphor, Mongolian

Contents

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1 Introduction

Binding Theory as an important part of generative syntax has been applied to analyze coreference relationships between pronominals (pronouns and anaphors) and nouns across various languages. Mongolian, however, has rarely been researched in the context of binding, compared to other languages. Let us first look at simple Mongolian examples catering to the three principles the Standard Binding Theory (SBT), advocated by Chomsky (1981; 1986b).

(1) Principle A: An anaphor must be bound in its binding domain.
Principle B: A pronoun must be free in its binding domain.
Principle C: An R-expression must be free.

In (2), the anaphor *öör* is bound by the subject. In (3), the pronoun *tüün* is unbound in the clause. In (4), the R-expression *Bat* is entirely free.

(2) Baatar$_i$ öör$_{i/*j}$-ig-öö šüümjile-sen. (Principle A)
Baatar-NOM self-ACC-RX criticize-PST[2]
'Baatar criticized himself.'

(3) Baatar$_i$ tüün$_{*i/j}$-ig šüümjile-sen. (Principle B)
Baatar-NOM 3SG-ACC criticize-PST
'Baatar criticized her/him (someone else).'

(4) Baatar$_i$ Bat$_j$-ig šüümjile-sen. (Principle C)
Baatar-NOM Bat-ACC criticize-PST

[2] The abbreviations to use in this paper include ACC: accusative, COMP: complementizer, DAT: dative, GEN: genitive, NOM: nominative, PS: passive, PSS: possessive suffix, PST: past, and RX: reflexive-possessive suffix.

'Baatar criticized Bat.'

What concerns us in this paper are cases like (2), which exemplifies Principle A of SBT, and like (5), in which neither the anaphor *öör* nor any other kind of pronominal is present but what has been called "reflexive-possessive suffix" (RX), namely, *-aa* is present.[3]

(5) Baatar nom-ϕ-oo mart-san.
Baatar-NOM book-ACC-RX forget-PST
'Baatar forgot his book (=Baater's book).'

Particularly noteworthy with (2) and (5), which both involve reflexivity, is that the anaphor *öör* calls for the presence of RX in (2) and RX is independently present in (5). This indicates that RX, not the anaphor, is the hallmark of reflexivity in Mongolian. It is thus intriguing to question what exactly RX is and what it can imply for the theory of reflexive binding.

Gong (2023), one of the few related studies, discusses RX in terms of Principle A and proposes the following.

(6) RX (her REFL.POSS -AA) signals agreement with a minimal pronoun bound by the closest *v* which introduces the local subject.
i. Binding mechanism: Binding by *v*.
ii. Nature of bound (reflexive) pronoun: Minimal Pronouns (MIN)
iii. Morpho-syntactic source of -RX: Feature Transmission

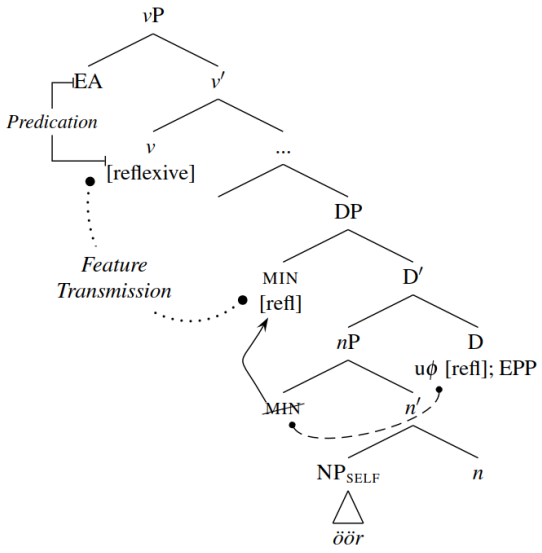
Gong's (2023) proposal follows from Kratzer's (2009), who argues that it is the local functional head *v* rather than an antecedent DP that serves as the binder of reflexives, which acquire their phi-feature set from *v* via Feature Transmission under Binding (FTUB).

(7) Feature Transmission under Binding (Kratzer 2009: 216)
The φ-feature set of a locally bound pronoun unifies with the φ-feature set of the head that hosts its binder.

[3] RX, being subject to vowel harmony, has three allophonic morphemes, *-aa*, *-ee*, *-oo* and *-öö*, which do not differ from each other syntactically and semantically.

On this account, reflexives are elements born without φ-features, which Kratzer (2009) called MIN, for minimal pronoun. Following Kratzer (2009), Gong (2023) assumes that there is MIN in Mongolian, which is base-generated in Spec of nP, sharing φ-features with D, and moves to Spec of DP due to EPP on D. Having moved to Spec of DP, MIN remains in the same domain as *v*. FTUB applies and MIN receives the feature [ref], for reflexivity, from *v*. Since MIN shares this feature with D, as a result it is present on three heads including *v*, MIN, and D, and is spelled out as RX on D.

(8) Derivation of *öör-ig-öö* in (2):

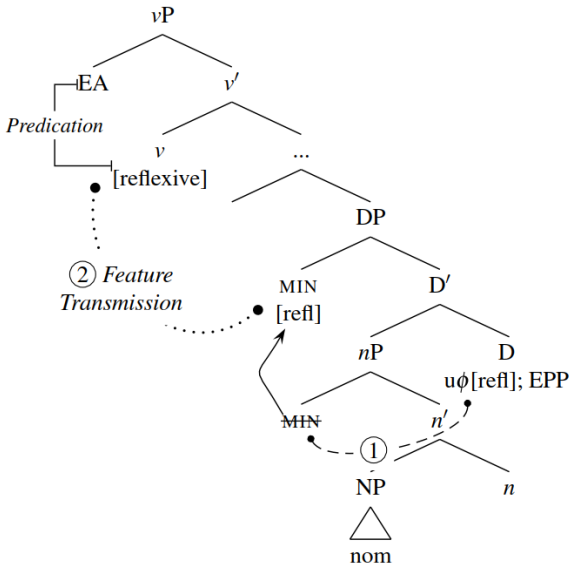


(Gong 2023: 5)

Regarding the case in which *öör* is used as a possessor in a possessive DP, as in (9), Gong (2023) treats *öör* as a noun just like a common noun, as shown in (10), and RX as a D head.

(9) Baatar öör-in nom-*ϕ*-oo mart-san.
Baatar-NOM self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.'

(10) Derivation of *nom-oo* as in (9):



(Gong 2023: 6)

While the idea that the reflexive property takes shape via the link between the nominal domain and *v* is valuable, a few problems remain unclear to me under this approach. First, it is unclear where to locate *öör* in *öör-in nom-oo* 'one's own book' as in (9), if *nom* 'book' is located under NP. Second, even problematic is the case such as *öör-in-öö nom* as in (10), in which RX precedes NP. This ordering would be reversed in the above tree diagram.

(11) Baatar öör-in-öö nom-ig mart-san.
Baatar-NOM self-GEN-RX book-ACC forget-PST
'Baatar forgot his own book.'

Third, assuming that a D head follows NP is not on par with the fact that DPs are always head-initial in Mongolian like many other languages. Fourth, it is unclear why RX is always the rightmost element within a phrase requiring it. RX follows any other nominal inflections including those for number and case. Additionally, assuming RX as a feature receiver also remains problematic if FTUB, as discussed by Reuland (2020: 5), is an inappropriate assumption given that feature transmission is not feature valuation but rather feature checking. Given these difficulties, it is not appropriate to treat *öör* as a noun and RX as a D head.

This paper, on the basis of a wider range of facts about *öör* and RX, proposes an alternative analysis of them, explicating the nature of reflexive binding in Mongolian and its theoretical implications. **Sections 2** and **3** overview the basic properties of *öör* and RX, focusing on the conditions and/or constraints on their positions and interactions. **Section 2** illustrates that the anaphor *öör* functions an object, a possessor, and an embedded subject and that it can be absent

at PF when RX is present elsewhere as a reflexive marker. **Section 3** explicates that RX is required by cojoint reference but blocked by disjoint reference and that it is licensed by a local subject. **Section 4** justifies that reflexivity arises between specifiers, not between a specifier and a complement. Noteworthy is the fact that the anaphor *öör* functions as an object, it is not a simple DP but rather a possessive DP, where *öör* occupies Spec of D on the one hand and N, which represents the lexical core of pronominals, is selected by D as its complement on the other hand. This leads to the structural resemblance between anaphoric objects and typical possessive DPs containing the anaphor. **Section 5** presents a "portmanteau" approach to the formation of possessive pronouns and anaphors, arguing that they are formed through clustering of relevant features on various D heads. That is, D heads undergo fusion to become a single head, followed by (spanning and) vocabulary insertion, thereby forming a pronominal. **Section 6** examines the binding properties of the Reflexive-Possessive Principle in Mongolian, implements binding, and elucidates the categorial status and positions of RX. A crucial claim to make is that reflexive binding always holds between two Specs, of which the higher one is Spec of vP, occupied by a subject, and the lower one is either Spec of DP, occupied by a possessor or a genitive embedded subject, or Spec of CP, occupied by an accusative embedded subject. **Section 7** concludes the paper.

2 Basics of *öör*

Öör is used primarily as three grammatical functions: object, possessor and subject. We discuss each situation in sections 2.1, 2.2 and 2.3, and summarize themin section 2.4.

2.1. *Öör* as an object

When used as an object, *öör* displays the following properties. **First**, it cooccurs with RX.

(12) Baatar öör-ig-öö šüümjil-sen.
Baatar-NOM self-ACC-RX criticize-PST
'Baatar criticized himself.' (= (2))

Second, it can be replaced by alternative anaphors *bey*, which literally means "body" and *öör-m bey*, which literally means "self's body".

(13) Baatar bey-*ϕ*-ee šüümjil-sen.
Baatar-NOM body-ACC-RX criticize-PST
'Baatar criticized himself.'

(14) Baatar öör-in-bey-*ϕ*-ee šüümjil-sen.
Baatar-NOM self-GEN-body-ACC-RX criticize-PST
'Baatar criticized himself.'

Third, it takes one of accusative, dative and ablative cases, depending on (the lexical semantics of) the verb. For example, the same meaning "Baatar loves himself" can be expressed by both (15), in which the anaphor takes dative case, and (16), in which the anaphor takes accusative case.

(15) Baatar bey-d-ee hair-tai.
Baatar-NOM body-DAT-RX love-be
'Baatar loves himself.' (Literally: Baatar has love for his body.)

(16) Baatar bey-ee hairl-naa.
Baatar-NOM body-ACC-RX love-be
'Baatar loves himself.'

However, unlike *bey*, *öör* cannot be used with dative case, as shown in (17), which contrasts with (18), in which *öör* is used with accusative case. This is because *öör* with dative case and RX makes up an intensifying adverb *öör-t-oo* 'oneself', which blocks the argumental use of the dative *öör*. In other words, the same form *öör-t-oo* is potentially available as both an argument and an adverb. However, *öör-t-oo* as an adverb is a lexicalized word, which prevents the same form from being used syntactically. Certainly, *öör-in-bey* can also be used since it does not give rise to a blocking effect.

(17) *Baatar öör-t-öö hair-tai.
Baatar-NOM body-DAT-RX love-be
'Baatar loves himself.' (Literally: Baatar has love for his body.)

(18) Baatar öör-ig-öö hairl-naa.
Baatar-NOM body-ACC-RX love-be
'Baatar loves himself.'

The following examples show that *öör* as well as its two variants takes ablative case in acting as an object.

(19) Baatar öör-öös-öö asuu-san.
Baatar-NOM self-ABL-RX ask-PST
'Baatar asked himself.'

(20) Baatar (öör-in-)bey-ees-ee asuu-san.
Baatar-NOM self-GEN-body-ABL-RX ask-PST
'Baatar asked himself.'

Notably, *öör* is not favored over *bey* and *öör-in-bey*, presumably due to avoidance of ambiguity that would arise between it (the anaphor *öör* 'self ') and the homophone *öör*, which means "another" or "different", as in *öör hüm* 'a different person'. Note that the anaphor *öör* is written as ᠥᠥᠷ, whereas the adjective *öör* is written as ᠥᠥᠷᠡ in the classical alphabetic orthographical system. The Cyrillic orthographical system does not distinguish them.

2.2. *Öör* as a possessor

Öör acts as a possessor in a DP object, a DP adjunct and a PP adjunct.[4] These three share the following common properties. **First**, *öör* takes genitive case; **second**, it cooccurs with RX, which is present either on it or on the possessum; **third**, it can be absent; **fourth**, it cannot be replaced by the body anaphors *bey* and *öör-in-bey*.[5]

[4] Only locative postpositions such as *deer* 'above' and *dotor* 'inside' can coccur with *öör* that is interpreted as a possessor, with RX present. Non-locative postpositions such as *tuhai* 'about' can also cooccur with *öör*, but only when *öör* is not interpreted as a possessor, with RX disallowed. Locative PPs in Mongolian are categorily ambigious. They display properties of nouns, adjectives and prepositions. In the language, there exist few purely functional prepositions. The Mongolian counterparts of English prepositions such as *for*, *to*, *with* and *at*, for example, are not postpositions but case forms such as dative, ablative and instrumental.

[5] Replacement of *öör* by the body anaphors *bey* and *öör-in-bey* is possible when an inherent possession is obtained.

(21) Baatar öör-in-öö nom-ig mart-san. (DP object)
Baatar-NOM self-GEN-RX book-ACC forget-PST
'Baatar forgot his own book.'

(22) Baatar (öör-in) nom-ϕ-oo mart-san. (DP object)
Baatar-NOM self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.'

(23) Baatar öör-in-öö hašaan-d mod zail-san.[6] (DP adjunct)
Baatar-NOM self-GEN-RX yard-DAT-RX tree plant-PST
'Baatar planted a tree in his own yard.'

(24) Baatar (öör-in) hašaan-d-aa mod zail-san. (DP adjunct)
Baatar-NOM self-GEN yard-DAT-RX tree plant-PST
'Baatar planted a tree in his own yard.'

(25) Baatar öör-in-öö hazuu-d nom tabi-san. (PP adjunct)
Baatar-NOM self-GEN-RX next-DAT book put-PST
'Baatar put a book next to himself.'

(26) Baatar (öör-in) hazuu-d-aa nom tabi-san. (PP adjunct)
Baatar-NOM self-GEN next-DAT-RX book put-PST
'Baatar put a book next to himself.'

When *öör* acts as the supreme possessor in double possessives, it displays the following properties. RX is allowed to present only on the pivot (the noun possessed by *öör* and possesses the other noun) and in that case the precense of *öör-in* is less favored but acceptable. It is disallowed to be present on *öör-in* and the other element (noun or postposition).

(27) *Baatar öör-in-öö bagš-in nom-ig mart-san.
Baatar-NOM self-GEN-RX teacher-GEN book-ACC forget-PST
'Baatar forgot his own teacher's book.'

[6] Indefinite, non-specific objects do not take accusative case in Mongolian.

(28) Baatar (öör-in) bagš-in-aa nom-ig mart-san.
Baatar-NOM self-GEN teacher-GEN-RX book-ACC forget-PST
'Baatar forgot his own teacher's book.'

(29) *Baatar (öör-in) bagš-in nom-ϕ-oo mart-san.
Baatar-NOM self-GEN teacher-GEN book-ACC-RX forget-PST
'Baatar forgot his own teacher's book.'

RX can be present on a postposition possessed by the pivot, when the location (in space or time) denoted by the postposition is interpreted as possessed by *öör*. That is, only a direct possession obtained between *öör* and an element allows RX on that element, regardless of the double possessive form. The precense of *öör-in* is less favored but acceptable.

(30) Baatar (öör-in) ger-in gadana-aa ceberl-sen.
Baatar-NOM self-GEN house-GEN outside-RX cleaned-PST
'Baatar cleaned the outside of his house.'

In such sentences, PP, e.g., *ger-in gadana* 'outside of house' as a whole is interpreted as a possessum. Importantly, the presence of RX on the pivot is less favored and even disallowed, when the PP is an object.

(31) #Baatar (öör-in) ger-in-ee gadana-ig ceberl-sen.
Baatar-NOM self-GEN house-GEN-RX outside-ACC cleaned-PST
'Baatar cleaned the outside of his house.'

However, when the PP is an adjunct, the sentence becomes quite acceptable.

(32) Baatar (öör-in) ger-in-ee gadana mod zail-san.
Baatar-NOM self-GEN house-GEN-RX outside tree plant-PST
'Baatar planted a tree outside his house.'

The argumenthood and adjuncthood of such PPs thus seem to affect the interpretation of the location denoted by a postposition as a possessum of *öör* and the presence or absence of RX.

2.3. *Öör* as the subject of subordinate clauses

Any of clausal objects with or without *gež*, object relative clauses and clausal adjuncts can have *öör* as a subject and RX must be present. Situations differ according to the types of clause.

When used as the subject of clausal objects headed by the complementizer *gež* and clausal adjuncts, *öör* takes accusative case and cannot be absent. Without *öör*, the covert embedded subject is interpreted as a nonspecific person.

(33) Baatar öör-ig-öö buruud-san gež med-sen. (*gež* clause)
Baatar-NOM self-ACC-RX go wrong-PST COMP know-PST
'Baatar realized that he was wrong.'

(34) Baatar öör-ig-öö buruud-h-d busud-ig šüümjil-sen. (adverbial clause)
Baatar-NOM self-ACC-RX go wrong-CV-DAT others criticize-PST
'Baatar criticized others for his own mistakes.'

When used as the subject of clausal objects headed by the complementizer *gež* and relative clauses, *öör* takes genitive case and can be absent. RX is present either on *öör*, when it is present, or on the verb.

(35) Baatar öör-in-öö buruud-san-ig meder-sen. (clausal object without *gež*)
Baatar-NOM self-GEN-RX go wrong-PST-ACC admit-PST
'Baatar admitted that he was wrong.'

(36) Baatar (öör-in) buruud-san-aa meder-sen. (clausal object without *gež*)
Baatar-NOM self-GEN go wrong-PST-RX admit-PST
'Baatar admitted that he was wrong.'

(37) Baatar öör-in-öö hel-sen üg-ig mart-san. (relative clause)
Baatar-NOM self-GEN-RX say-PST word-ACC forget-PST
'Baatar forgot the words he said.'

(38) Baatar (öör-in) hel-sen üg-ϕ-ee mart-san. (relative clause)
Baatar-NOM self-GEN say-PST word-ACC-RX forget-PST

'Baatar forgot the words he said.'

2.4. Interim summary

In summary, we optain the following findings. As shown in (39), *öör-in* (genitive) acts as a possessor in DPs and PPs, which are a special type of DP due to their propery as locative expressions, and as the subject of object clauses without *gež* and relative clauses, which are categorily nominalized TP (see section 6). *Öör-ig* (accusative) acts as an object and as the subject of object clauses with *gež*, which are categorily CP (see section 6), and adjunct clauses, which are categorily non-nominalized TP (see section 6). When taking dative or ablative case, the anaphor can only be objects.

(39) Distributional paradigm of *öör* (interaction of its case and grammatical functions)

		As an object	As a possessor	As a subject
Genitive			possessive DP; possessive PP	object clause without *gež*; relative clause
Non-genitive	accusative	DP object		object clause with *gež*; adjunct clause
	dative	DP object		
	ablative	DP object		

Regarding the position of RX, which is required for an overt *öör*, two positions are available. One follows the genitive and accusative case markers and the other follows the whole phrase.

(40) Presence or absence of *öör-in* (**genitive**) and position of RX

genitive		accusative
öör-in-öö XP	*öör-in* XP-*öö*	*öör-ig-öö*
absence disallowed	absence allowed	absence disallowed

Importantly, the genitive *öör-in* is absent when RX occurs in the second type of position. In other words, *öör-in* is absent when it is separated from RX. This means that RX always requires an overt host. Let us tentatively formulate this property as follows.

(41) The Elsewhere Marker Condition (EMC)

Anaphors can be absent at PF when RX is present elsewhere as a reflexive marker.

EMC is evidently correct in terms of the linear structure. It is, however, not simply a surface condition for a linear structure. The logic underlying it is essentially a matter of syntax and is hierarchically derived. Section 6 discusses this in more detail.

3 Basics of *-aa*

As seen in section 2, *öör* always calls for the presence of RX, which plays the most crucial role in reflexive binding in Mongolian. Only elements other than nominative subjects can be attached by RX. This paper, however, is concerned only with cases in which RX is attached to accusative-marked objects. This section focuses on the interactions of RX and the cojoint reference (CR) or disjoint reference (SR) between subjects or possossers.

3.1. Co/Disjoint reference and RX

As can be summarized from section 2, any of the following conditions must be satisfied where RX occurs.

(42) Conditions on RX

a. The accusative *öör* acts as an object that is coindexed with a local subject.
b. The genitive *öör* acts as the possessor of *bey*, which hosts RX, and is coindexed with a local subject.
c. The genitive *öör* acts as the possessor of an NP hosting RX and is coindexed with a local subject.
d. The genitive *öör* acts as the subject of a relative clause that modifies an NP hosting RX and is coindexed with the matrix subject.
e. The genitive *öör* acts as the subject of a complement clause that contains with its predicate hosting RX and is coindexed with the matrix subject.

Notably, the necessary condition of licensing RX is that coindexation is obtained between a subject and *öör*, either accusative or genitive and either present or absent at PF. For (42c), (42d), and (42e), *öör* itself can host RX, which, however, is subject to pragmatic semantic constraints to some extent. When combined with *bey*, *öör* cannot hold RX.

(43) Distributional paradigm of RX in simplex anaphors, *gež* clauses, and adverbial clauses[7]

	NOM	ACC	Example
	SBJ_i	*öör*$_i$-RX	(12, 33, 34)

(44) Distributional paradigm of RX in complex anaphors

	NOM	GEN	ACC	Example
*	SBJ_i	*öör*$_i$-RX	bey	
	SBJ_i	*öör*$_i$	bey-RX	(14)
	SBJ_i		bey-RX	(13)

(45) Distributional paradigm of RX in possessive NPs (as well as possessive PPs)

NOM	GEN	ACC	Example
$NP2_i$	*öör*$_i$-RX	NP_j	(21, 23, 25)
$NP2_i$	*öör*$_i$	NP_j-RX	(22, 24, 26)
$NP2_i$		NP_j-RX	(22, 24, 26)

(46) Distributional paradigm of RX in NPs with relative clauses

NOM	GEN	ACC	Example
$NP2_i$	*öör*$_i$-RX	NP_{RELj}	(37)
$NP2_i$	*öör*$_i$	NP_{RELj}-RX	(38)
$NP2_i$		NP_{RELj}-RX	(38)

(47) Distributional paradigm of RX in clausal complements without *gež*

NOM	GEN	ACC	Example
SBJ_i	*öör*$_i$-RX	V	(35)
SBJ_i	*öör*$_i$	V-RX	(36)
SBJ_i		V-RX	(36)

It then follows that CR feeds RX and DR (or switch reference/SR) blocks it. Importantly, RX is licensed by a local subject that is involved in coindexation. In what follows, we test this result.

In (48), *muur* 'cat' is possessed by the embedded genitive subject *Bat*, which is located in

[7] Case suffixes are all left out in these tables.

the same clause as *muur*. RX is thus licensed by *Bat* and present on *muur*. Note that this RX is not licensed by the matrix subject *Baatar* because *muur* 'cat', the host of RX, is not an argument of the matrix verb; that is, the host of RX and the matrix subject are not coarguments and are not in the same clause. Therefore, DR between the matrix subject and the embedded subject or between the matrix subject and the host of RX is not relevant here and does not block RX.

(48) Baatar Bat-in muur-ϕ-aa üns-sen-ig har-san.
Baatar-NOM Bat-GEN cat-ACC-RX kiss-PST-ACC see-PST
'Baatar saw that Bat kissed his cat (= Bat's cat).'

In (49), RX on *muur* is licensed by the embedded subject *bagš* 'teacher', not by the matrix subject *Baatar*. In contrast, RX on the embedded subject *bagš* is licensed by the matrix subject because there is a possessive relation between them.

(49) Baatar bagš-in-aa muur-ϕ-aa üns-sen-ig har-san.
Baatar-NOM teacher-GEN-RX cat-ACC-RX kiss-PST-ACC see-PST
'Baatar saw that his teacher kissed his cat (= teacher's cat).'

The same holds true in sentences containing a relative clause. Let us illustrate this using non-accuative elements as in (50) and (51), showing that this property is not restricted to accusative elements.

(50) Baatar Bat-in bagš-aas-aa zeel-sen nom-ig-ni unš-sen.
Baatar-NOM Bat-GEN teacher-ABL-RX borrow-PST book-ACC-PSS[3] read-PST
'Baatar read the book that Bat borrowed from his teacher (= Bat's teacher).'

(51) Baatar bagš-in-aa hüü-d-ee ab-san nom-ig-ni unš-sen.
Baatar-NOM teacher-GEN-RX son-DAT-RX buy-PST book-ACC-PSS[3] read-PST
'Baatar read the book that his teacher (= Bataar's teacher) bought for his son (= the teacher's son).'

In conclusion, RX is licensed by a local subject but blocked by DR. The requirement of CR indicates that RX is a reflexive marker. The optional absence of *öör-in* indicates that an anaphor is not the hallmark of reflexivity in Mongolian.

3.2. Licensing domain of RX

As seen in section 3.1, RX is licensed by a local subject. This subsection elaborates on this. As exemplified in (52), RX on *öör* is licensed by the embedded subject *Dorž*, which is indexed with *öör*.

(52) Baatar$_i$ Dorž$_j$-ig öör$_{*i/j}$-ig-öö šüümjil-sen-ig har-san.
Baatar-NOM Dorž-ACC self-ACC-RX criticize-PST-ACC see-PST
'Baatar saw that Dorž criticized himself (= Dorž).'

If *öör* is not indexed with the embedded subject, but with the matrix subject *Baatar*, RX is not present on *öör*.

(53) Baatar$_i$ Dorž$_j$-ig öör$_{i/*j}$-ig-ni šüümjil-sen-ig med-ne.
Baatar-NOM Dorž-ACC self-ACC-PSS[3] criticize-PST-ACC know-PRS
'Baatar knows that Dorž criticized him (= Baatar).'

The same holds true of the case in which the embedded clause is headed by the complementizer *gež*, as exemplified in (54) and (55).

(54) Baatar$_i$ Dorž$_j$-ig öör$_{*i/j}$-ig-öö šüümjil-sen gež hel-sen.
Baatar-NOM Dorž-ACC self-ACC-RX criticize-PST COMP say-PST
'Baatar said that Dorž criticized himself (= Dorž).'

(55) Baatar$_i$ Dorž$_j$-ig öör$_{i/*j}$-ig-ni šüümjil-sen gež hel-sen.
Baatar-NOM Dorž-ACC self-ACC-PSS[3] criticize-PST COMP say-PST
'Baatar said that Dorž criticized him (= Baatar).'

Note that where RX is blocked, *-ni*, which is a marker of possessive (not reflexive or reflexive-possessive) relation, is needed. *-Ni* is not licensed by a subject of any type and is not subject to clause boundaries. Note that *öör* with *-ni* is coindexed with the matrix subject *Baatar*. However, this does not mean that the matrix subject licenses *-ni*. This is because the host of *-ni* can also

be possessed by an element other than the matrix subject and is not obligatory, as shown by the following example, in which *-ni* is glossed by "PSS[3]" (for "third person possessive marker").[8]

(56) Baatar$_i$ Dorž-in hüü-ig(-ni) šüümjil-sen.
Baatar-NOM Dorž-GEN son-ACC-PSS[3] criticize-PST
'Baatar criticized Dorž's son.'

This said, the licensing domain of RX is a minimal phrase in which the coindexed arguments, one of which must be a subject. This connects to the discussion on binding domain in section 6.

4. Reflexivity as a Spec-Spec relation

I use the word "pivot", used as a term by Striling (1993: 6), to refer to an element that is related to another element by cojoint reference. There are thus two pivots, one high and another low, for cojoint reference to hold. As seen in section 2, the high pivot always a subject and the low pivot may be a subject, a possessor, or an object. That is, there are three kinds of coreferential relations: subject-subject relation (SSR), subject-possessor relation (SPR) and subject-object relation (SOR). What is the common property of SSR, SPR and SOR? What is the most basic relation that underlies SSR, SPR and SOR, whereby they are expressed by the common marker RX? This issue naturally relates to what reflexivity is.

In line with extensive discussion in the literature (Faltz 1977; Reuland and Reinhart 1993; Kazenin 2001; Huang 2005; Reuland 2011a, and many), an informal characterization of reflexivity would be like (57) below.

(57) Reflexivity is a dependency between two arguments of a predicate that assigns external and internal roles to them.

One of the most influential studies on reflexivity is Reinhart and Reuland (1993) as well as their subsequent research. Reuland and Reinhart (henceforth, R&R) defined reflexivity as follows.

[8] Unlike RX, PPS[3] is attached to a third person element. Mongolian also has PPS[1] and PSS[2]. For relevant descriptions, see Janhunen (2012) and Kullmann and Tserenpil (2015) among many.

(58) A predicate is reflexive iff two of its arguments are bound by the same λ-operator. (Reuland 2014: 11)

Roughly speaking, reflexivity is obtained between a subject and an object, according to (57) and (58). Accordingly, only SOR among the three relations noted above would qualify as reflexivity.

However, as suggested by the Mongolian data discussed in section 3, reflexivity is not necessarily SOR. Reflexivity as defined by R&R remains one in the narrowest sense. Note that complex anaphors are structurally possessive DPs, as indicated by the bodypart anaphor *öör-in bey* 'self's body'. In a looser sense, *bey*, as the lexical core of the anaphor, is possessed by *öör*, which carries the referential meaning of the anaphor, as illustrated below.

(59) Baatar$_i$ öör$_{i/*j}$-in bey-ϕ-ee šüümjile-sen.
Baatar-NOM self-GEN body-ACC-RX criticize-PST
'Baatar criticized himself.' (= (13))

In this sense, structurally, *bey* is N, which is selected by *öör-in*, which is a possessive determiner D, as represented below.

(60) [$_{XP}$ … subject … [$_{DP}$ possessor [$_{D'}$ D [N]]]

(61) [$_{XP}$ … Baatar … [$_{DP}$ *öör* [$_{D'}$ *-in* [*bey*]]]

This suggests that the bare anaphors *öör* and *bey*, in (62) and (63) are in fact also realizations of the possessive structure in (59), where certain syntactic elements are not realized as morpho-phonological items. For *öör*, D and N have no content at PF, and for *bey*, Spec of DP and D have no content.

(62) Baatar$_i$ öör$_{i/*j}$-ig-öö šüümjile-sen.
Baatar-NOM self-ACC-RX criticize-PST
'Baatar criticized himself.' (= (12))

(63) Baatar$_i$ bey$_{i/*j}$-ϕ-ee šüümjile-sen.

Baatar-NOM body-ACC-RX criticize-PST

'Baatar criticized himself.' (= (13))

Analyzing anaphors as possessive DPs is supported by and accounts for the fact that many languages allow bodypart anaphors, e.g., *kò a li* 'his body' in Haitian Creole (Rooryck and Vanden Wyngaerd 2011: 40), *zi-shen* 'self's body' in Mandarin, and *zi-sin* 'self's body' Japanese.[9] These anaphors all behave in a very similar way to Mongolian *öör-in bey*. They all literally mean "self's body". Differences among such languages in the moroho-syntactic properties of anaphors are supposedly related to their lexicalization, which took place diachronically, as well as language-specific ways of deriving pronouns and anaphors. Under a framework such as Distributed Morphology (Halle and Marantz 1993; Embick and Marantz 2008), all these elements can be analyzed as spelling out one or more single terminal nodes resulting from an operation such as fusion.

Conceptually, a possessive-possessum relation is a kind of subject-object relation mediated by a functor. In this regard, the predicate is something like "*x holds y*", where *holds* is a possessive predicate, *x* is an external argument,[10] and *y* is an internal argument. Roversi (2024) observes that an abstract transitive verb, what he calls POSS, takes the possessor as its external argument and the possessum as its internal argument, which gives rise to exactly the same possessive semantics as the nominal head *'s* .

(64) [$_{vP}$ possessor [$_{v'}$ POSS [$_{DP}$ possessum]]] (Roversi 2024: 2)

Roversi (2024) argues that in languages such as Äiwoo possessive DPs are derived by relativization of the possessum. Let us illustrate this using English examples.

(65) Derivation of *my book*:

[$_{DP}$ book$_i$ [$_{RC}$ … [$_{vP}$ I [$_{v'}$ POSS [$_{DP}$ _____ $_i$]]]]] (based on Roversi 2024)

---

[9] See Bai (2024b) for detailed discussion on Chinese and Japanese anaphors.

[10] R&R (1993) and many others also treat the possessor in a possessive DP as an external argument/subject. By this, R&R (1993: 682) explained the difference in grammaticality between the following sentences. In (ib), *your* is present as the subject of a semantic predicate and therefore subject to Condition B in (102), leading to the ungrammaticality, with no coindexation obtained between it and *herself*.

(i) a. Lucie liked [(a) picture of herself].

b. */?Lucie liked [your picture of herself].

This derivation, according to Roversi (2024), is not supposed to be universal. However, it provides us with a way into the logical structure of possessums. On the basis of (65), we paraphrase (66) as (67) with the relevant structure represented by (68).

(66) Pasha loves her cat.

(67) Pasha loves the cat she holds/possesses/has.

(68) [$_{XP}$ Pasha$_j$ [$_{VP}$ love [$_{DP}$ cat$_i$ [$_{RC}$ [$_{vP}$ she$_j$ [$_{v'}$ ___ $_i$]]]]]]]

Note that we are not trying to syntactically derive possessive DPs by relativization. We are representing their logically interpreted structure instead. Given this, reflexivity arises between a subject and a possessor, which is the subject of the semantic predicate *HOLD* (or *POSS*), but not between a subject and a possessum. Specifically, the following is obtained.

(69) Reflexivity arises between specifiers, not between a specifier and a complement.

This brings SSR, SPR and SOR under a unified frame, which are distinct intances of the Spec-H-Comp structure, as illustrated below.

(70) [$_{XP}$ Spec(=SBJ=high pivot) … [$_{HP}$ Spec(=low pivot) [$_{H'}$ H [Comp]]] …] (for all)

a. [$_{vP}$ SBJ$_i$ … [$_{vP}$ SBJ$_i$ [$_{v'}$ v [OBJ]]] …] (for SSR)

b. [$_{vP}$ SBJ$_i$ … [$_{DP}$ PSSR$_i$ [$_{D'}$ D$^{[HOLD]}$ [N]]] …] (for SPR and SOR)

Thus, both possessive predicates as in (71) and anaphoric predicates as in (72) can be successfully captured by (73b) in a unified way.

(71) Pasha$_i$ loves her$_i$ cat.

(72) Pasha$_i$ loves her$_i$-self.

(73) A unified structure of anaphoric and possessive reflexives (informal):

a. [$_{vP}$ subject$_i$ … [$_{DP}$ possessor$_i$ [$_{D'}$ D possessum]]] (D=*HOLD*)

b. (69): [$_{vP}$ Pasha$_i$ love … [$_{DP}$ *SHE*$_i$ [$_{D'}$'s [$_{N}$ cat]]] …] ('s=*HOLD*)

c. (70): [$_{vP}$ Pasha$_i$ love … [$_{DP}$ *SHE*$_i$ [$_{D'}$'s [$_N$ self]]] …] ('s=*HOLD*)[11]

The following is an elaboration on the structure of anaphors.

(74) [$_{vP}$ Pasha$_i$ love … [$_{DP}$ *SHE*$_i$ [$_{D'}$'s [$_N$ self]]] …]

a. D (='s) is a possessive determiner head and a semantic predicate *HOLD*;
b. The referential part, that is, phi-features, occupy Spec-DP;
c. [phi] on Spec and [poss] on D (probably plus a Case feature) are spelled out as *her*;
d. Two predicates (one being matrix and syntactic, another being embedded and semantic) are involved in the sentence;
e. Neither of the two predicate is reflexive;
f. Reflexivity obtains between the matrix subject *Pasha* and the logical subject *SHE*, which is contained by the DP and therefore is assigned no semantic role by the matrix predicate and is not bound by its λ-operator.

It then follows that the index-bearer is not the anaphor itself but rather the element in its Spec in a strict sense. The structure of Mongolian anaphors in (75) and (76) is represented in (77).

(75) Baatar öör-in bey-*ϕ*-ee šüümjil-sen.
Baatar-NOM self-GEN body-ACC-RX criticize-PST
'Baatar criticized himself.' (=(14))

(76) Baatar (öör-in) nom-*ϕ*-oo mart-san.
Baatar-NOM self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.' (=(22))

(77) A unifed structure of anaphoric and possessive reflexives (informal):

a. [$_{vP}$ subject$_i$ … [$_{DP}$ possessor$_i$ [$_{D'}$ D possessum]]] (D=*HOLD*)
b. (75): [$_{vP}$ Baatar$_i$ … [$_{DP}$ öör$_i$ [$_{D'}$ -in [$_N$ bey]]] … v] (in=*HOLD*)
c. (76): [$_{vP}$ Baatar$_i$ … [$_{DP}$ öör$_i$ [$_{D'}$ -in [$_N$ nom]]] … v] (in=*HOLD*)

[11] *Him* in *himself* is not a genitive form regardless of its status as a possessor. This has to do with the way features such as phi and case are assembled in syntax and particular spell-out rules. See Bai (2024b) for a detailed discussion.

Combining this with the fact that subjects are Specs and embedded subjects can be coindexed with matrix subjects (sections 2.3 and 3), we can conclude that reflexivity is a spec-spec relation, not a spec-comp relation.[12]

5. Internal organization of anaphors and possessive pronouns

In this section, we elaborate on the internal structure of anaphors on the basis of the discussion in sectopn 4. The core idea is that anaphors as well as possessive pronouns are formed in a portmanteau fashion. Technically, (an element with) [phi] sits in Spec, [poss] on D, and [n] on Comp, in the possessive DP structure, as represented below.

(78) [DP [phi] [D' [poss] [N [n]]]]

To elaborate on this, we need to look at first how possessive pronouns are derived, taking English as an example.

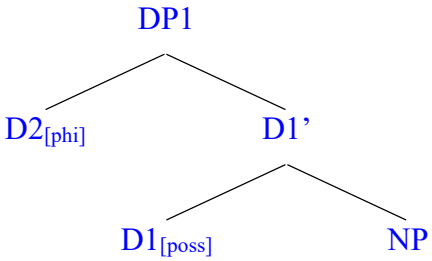
Previous studies on English (Abney 1987; Corver 1992; Chomsky 1995b; Munn 1995) suggest that possessors are merged in the specifier of DP, whose head D may be realized as *'s*. Hudson (2003) and Deal (2006), however, argue that English possessive pronouns are portmanteau morphemes, which arise as result of morphological mergers, spelling out multiple syntactic nodes. Davis (2023) argues that English possessive pronouns are lexical realizations of phi-features ([phi]) and a possessive feature ([poss]), which enter the derivation separately but undergo clustering, ending up in a single D head. Davis (2023) assumes that either fusion (Halle and Marantz 1993; Embick and Marantz 2008) or spanning (Bye and Svenonius 2012; Merchant 2015; Haugen and Siddiqi 2016; Svenonius 2016) plus vocabulary insertion may lead to creation of possessive pronouns. The portmanteau formation of possessive pronouns prevents the D head from being realized independently, which, Davis (2023) argues, is the reason for why English possessives do not allow extraction out of them. Davis (2023) also assumes with Postal (1969), Abney (1987), Baltin (2012) and Stanton (2016) that (English) pronouns, lacking a lexical core (Wiltschko 1998), are non-projecting determiners.

Specifically, possessive pronouns spell out the fused outcome of D and the material in its Spec. Based on a bare phrase structure theory of labeling (Chomsky 1995a, b), in which non-

[12] See Bai (2024b) for more details of reflexivity characterized in this way.

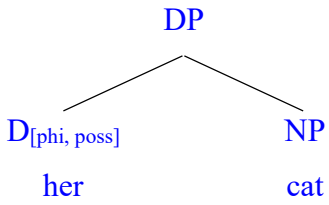
projecting heads are equivalent to phrases, Davis (2023) assumes that a bare determiner D2 occupies Spec of D1. Applying this analysis to *her cat*, we obtain (79).

(79) Initial structure of *her cat*



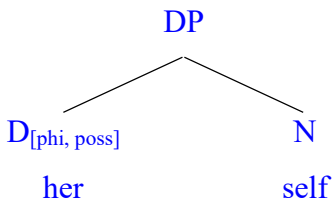
After (79) is built, D2 and D1 undergo fusion,[13] thereby creating a single terminal node, where the features on D1 and D2 are clustered. The vocabulary insertion (VI) rule then applies, with the morpheme *her* is chosen for D, as in (80).

(80) Fusion of possessive D and its Spec



Note, however, that the above structure represents the non-anaphoric use of *her*, as in *Pahsa$_i$ loves her$_j$ cat*, in which no reflexivity is obtained. Regarding the anaphor *herself*, we obtain the following structure, in which $D_{[phi]}$ and $D_{[poss]}$ undergo fusion, which is followed by spanning. Ultimately, *herself* seplls out two terminal nodes, namely, $D_{[phi, poss]}$ and N.

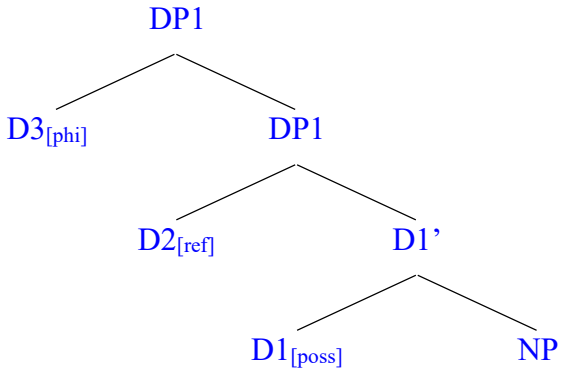
(81) Fusion of possessive D and its Spec



[13] *Fusion* here, a term of Distributed Morphology (Halle and Marantz 1993; Embick and Marantz 2008), refers to a syntactic operation that gets two (or more) nodes united into one before the application of the morphological operation VI.

But what about *her* in its anaphoric use, as in *Pahsa$_i$ loves her$_i$ cat* and possessive anaphors in many languages? It has been claimed that English does not have a possessive anaphor, also known as reflexive possessive (Truswell 2014). However, many other languages have one, e.g., Chinese *zi-ji de* 'one's own' and Japanese kare *zi-sin no* 'his own'. Let us first derive *her* in its anaphoric use. The two instanecs of *her*, I argue, are formed in the same pattern but differ in their feature organization. If possessive pronouns are realizations of D with [phi] and [poss], it is reasonable to say that possessive anaphors (reflexive possessive pronouns) are also realizations of D with appropriate features, among which there are [phi] and [poss]. The third feature is supposed to be (unvalued) [ref], for reflexivity. I assume that there is another bare D that bears [ref], which is stored in the lexicon, along with [phi] and [poss]; they are not added during the process of derivation in syntax, complying with Inclusiveness Condition (Chomsky 1995). Because D with [poss] should be the head of a possessive phrase, D with [ref] as well as D with [phi] sits in Spec of D with [poss] in the initial structure, as shown below. The features [phi], [ref] and [poss] enter into the derivation separately. That is, anaphors, which encode [ref] and [poss] as well, are often deficient in phi-features (Reuland 2018: 2) and not all anaphors have [poss].

(82)

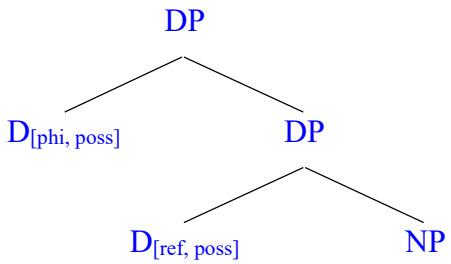


Note that four kinds of sets come out of these three features, namely, [phi, ref], [phi, poss], [ref, poss] and [phi, ref, poss], as inputs for clustering. However, clustering of features as well as fusion of heads is not arbitrary. It should be the case that head-head (leteral), spec-head (upward) or head-comp (downward), but not spec-spec, comp-comp or spec-comp, is subject to fusion. Given that D3 and D2 are both specifiers, they do not undergo fusion. That is, [phi] and [ref] do not undergo clustering, with the presence of [poss]. When [poss] is present with other features, it is subject to feature-clustering. D$_{[phi]}$ and D$_{[ref]}$ may undergo fusion if one of them is the head of the relevant DP, with D1$_{[poss]}$ absent. If D$_{[poss]}$ is absent, no NP is selected by D$_{[ref]}$. This means that non-possessive pronouns spell out a D head that lacks a lexical core (Postal

1969; Abney 1987; Wiltschko 1998; Baltin 2012; Stanton 2016).

Regarding the above structure, both fusion applies twice. That is, the ultimate structure looks like (83),which is a layered DP structure. $D_{[phi, poss]}$ is spelled out by *her*. What about $D_{[ref, poss]}$? I argue that it is spelled out by *own*. This means that *own* is a possessive anaphor just like, for example, Mongolian *öör-in*. This said, English has a reflexive possessive pronoun, contrary to the previous claim.

(83)



Note that *self's* does not spell out $D_{[ref, poss]}$, because *self* is chosen for N, as in (81). This would give one an impression of the lack of possessive anaphor in English.[14] *Own*, however, may be absent at PF, resulting in *her* in the anaphoric use, as in *Pahsa$_i$ loves her$_i$ cat*.

(84) Pahsa$_i$ loves her$_i$ (own) cat.[15]

In Mongolian, $D_{[phi, poss]}$ and $D_{[phi, poss]}$ are spelled out by *tüün-ne* 'her/his' and *öör-in* 'self's/own', respectively. However, *tüün-ne* mostly absent at PF, arguably because of a language-specific morpho-phonological principle, which favors a more economical spell out. When it produces a distinctive interpretation such as an intensive interpretation, *tüün-ne* is most likely overt. If a distinctive interpretation is not obtained, the presence of *tüün-ne* lowers the acceptability of the sentence. Similar facts are observed in languages such as Chinese, in which *ta* 'he/she' in *ta zi-ji* or *ta zi-ji de* 'her/his own' may be absent if there is no semantic contribution it can make.

(85) #Baatar (tüün-ne) öör-in nom-ϕ-oo mart-san.
Baatar-NOM 3SG-GEN self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.'

[14] Bai et al. (2024) reasons out that *own* in English is in fact a reflexive possessive pronoun (possessive anaphor).

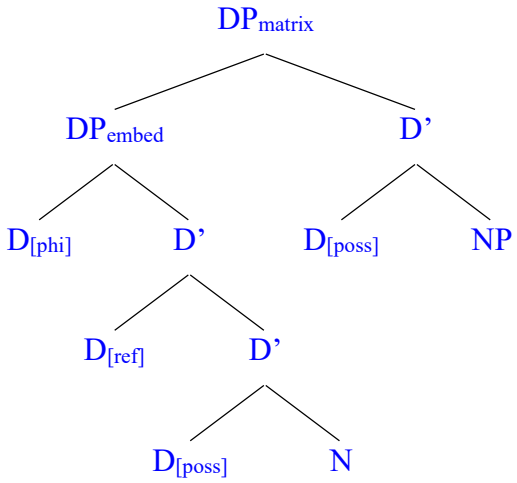
[15] This means that such sentences are subject to Principle A, not Principle B, with no violation of it.

Now we discuss the structure of the whole possessive DP structure containing a possessive anaphor. We clarify this using Mongolian complex anaphor *öör-in bey-in*.

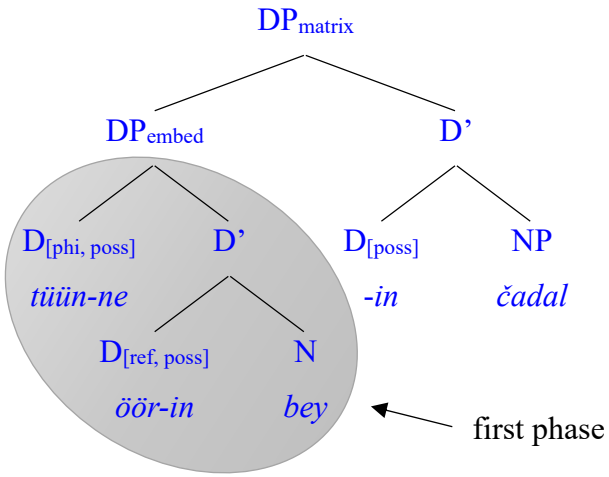
(86) Baatar öör-in bey-in-ee čadal-ig šalg-san.
Baatar-NOM self-GEN body-GEN-RX strength-ACC examine-PST
'Baatar examined his own strength.'

Two possessive D heads are involved in this structure. This means that the DP headed by the embedded $D_{[poss]}$ is located in Spec of the matrix $D_{[poss]}$.

(87) Initial structure of *öör-in bey-in čadal* 'self's body's strength'



(88) Ultimate structure; lexcical insertion applied



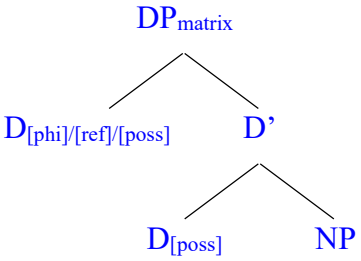
Due to economy principles of morpho-phonology such as (89), a spell-out with the smallest number of syllables, without affecting the possessive reflexive semantics, is favored.

(89) Use as few morphemes as possible, where other principles, if any, leave the choice open.

Consequently, either *öör-in* is the most likely ultimate realization of the embedded DP. *Bey-in* is also a likely option. However, due to the degree of lexicalization of *bey* as a body anaphor and the retention of the proptotypical meaning "body" to some extent, *bey-in* is less likely to be used in possessive DPs expressing an alienable possession as in *my book*. With inalienable possession as in *my strength*, *bey-in* is more likely to be used, as in *bey-in čadal*, which literally means "body's strength".

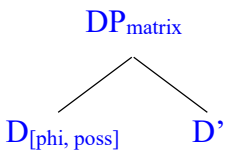
Importantly, since the embedded DP (DP_{embed}) as a whole can act as a simple element with [phi] or [ref], as represented below.

(90) DP_{embed} as D (initial structure)

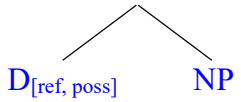


This means that DP_{embed} as a possessive DP in fact represents the first phase formation of a bare phrase (or a bare D) located in Spec of a matrix $D_{[poss]}$.[16] This in turn means that when [phi], [ref], and [poss] are selected from the lexicon into Spec of the $D_{[poss]}$, what would otherwise sepll out the embedded DP (DP_{embed}) in (88) as a whole spells out the $D_{[phi]}$ or $D_{[ref]}$ part of $D_{[phi, poss]}$ or $D_{[ref, poss]}$ in (91), which is the ultimate structure of (90).

(91) DP_{embed} as D (ultimate structure)



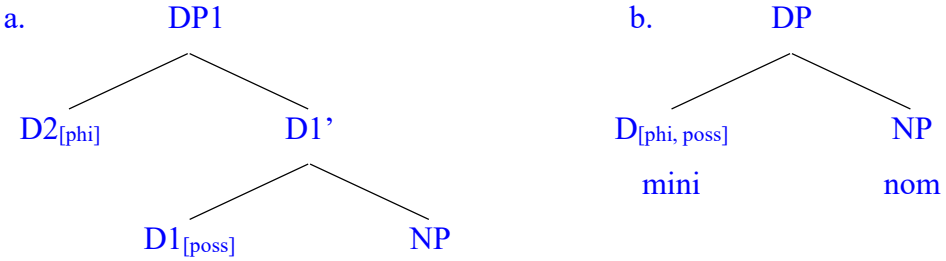
[16] The term "first phase" here, borrowed from Ramchand (2008), refers to a property that an element has a word-internal phrasal structure, which is unfolded to interplay with or have an impact on the syntactic properties of that word as a head in a larger phrasal structure. Informally, the word-internal phrasal structure can be called "Level-1 structure" or "first phase structure" and the larger phrasal structure containing the word itself as a head can be called "Level-2 structure" or "second phase structure".



The possessive feature [poss] on D in the first phase structure is thus squeezed out in the ultimate structure of the matrix DP. Therefore, DPs such as *(mini) öör-in nom* 'self's/own book' have either of the structures in (88), which is the full structure containing the first phase derivation, and (91), which is the very ultimate structure.

Regading non-reflexive possessive DPs, we obtain the following.

(92) Formation of non-reflexive possessive DPs (*mini nom* 'my book')



After (92a) is built and before the VI is applied, D2 and D1 undergo fusion, thereby creating a single node, with [phi] and [poss] clustered on it, as in (92b). Then, the VI applies and *mini* is inserted into $D_{[phi, poss]}$.

Having elaborated on the internal organization of anaphors, we move on to how binding takes place during the process of their portmanteau derivation.

6. Explaining reflexive binding

We first look at how the Reflexives-Possessive Principle (RPP), RX being its hallmark, can be identified as Binding Principle A in section 6.1, and implement binding in section 6.2. At last, we discuss the categorial status and position of RX in section 6.3.

6.1. Reflexives-Possessive Principle as Binding Principle A

For our purposes in this section, three properties of RX are particularly notable for RPP. **First**, RX is never attached to a nominative phrase.

(93) Attaching to nominative disallowed:

a. *Baatar-in bagš-ϕ-aa hičeel zaa-san.
Baatar-GEN teacher-NOM-RX lesson-ACC teach-PST
'Baatar's teacher taught a lesson.'

b. *Nom-ϕ-oo huučir-san.
book-NOM-RX become old-PST
'(Someone's) book got aged.'

Second, it is licensed by a local subject, not by a non-local subject. This is illustrated by the examples in section 3, two of which are repeated below.

(94) Licensed by local subject:

a. Baatar Bat-in muur-ϕ-aa üns-sen-ig har-san.
Baatar-NOM Bat-GEN cat-ACC-RX kiss-PST-ACC see-PST
'Baatar saw that Bat kissed his cat (= Bat's cat).' (=(48))

b. Baatar$_i$ Dorž$_j$-ig öör$_{*i/j}$-ig-öö šüümjil-sen-ig har-san.
Baatar-NOM Dorž-ACC self-ACC-RX criticize-PST-ACC see-PST
'Baatar saw that Dorž criticized himself (= Dorž).'

Third, it is blocked by switch reference,[17] as noted in section 3.1. For another example, in (95a), the book is possessed by the teacher, not Baatar, and therefore the clause, in which *Baatar* is the subject, does not serve as the licensing domain of RX on *nom*, leading to the ungrammaticality.

(95) Disjoint reference disallowed:

a. *Baatar bagš-in nom-ϕ-oo mart-san.
Baatar-NOM teacher-GEN book-ACC-RX forget-PST
'Baatar forgot his teacher's book.'

b. *Baatar bagš-in ög-sön nom-ϕ-oo mart-san.
Baatar-NOM teacher-GEN give-PST book-ACC-RX forget-PST

[17] This is a typical property of RX as a anaphoricity/reflexivity marker, which entails the explicit or implicit existence of an anaphoric element within the same nominal domain as it, given Reuland's (2014: 22) description that the traditional diagnostic that anaphors, unlike pronouns (his pronominals), do not allow split antecedents follows as a consequence of the analysis.

'Baatar forgot the book the teacher gave him.'

This means that the possessor *bagš* 'teacher' blocks the licensing of RX by the subject. In this sense, the possessor is a potential licensor of RX. However, the possessor is not a syntactic subject and is not assigned an external role by any verb. The external role assigner *marta* 'forget' has a subject but that subject is blocked by the possessor. Thus, the licensing domain of RX fails to obtain.

In (95b), *nom* 'book' wants to be marked by RX, but it cannot because the licensing domain fails to obtain. Note that the potential licensing domain is the clause that contains the matrix subject *Baatar* and the syntactic predicate *marta* 'forget'. However, *Baatar* is not the subject closest to the host of RX. The relative clause cannot be a licensing domain, although it has a subject and a predicate. This is because there is not an element that can host RX within the relative clause. Note that the host of RX, namely, *nom* is located within the matrix clause and outside the relative clause. It can be said that it has a trace in the object position in the relative clause. However, a trace as an empty element, cannot host RX. That is, there is no way for RX to be licensed by the relative subject. Another way of spelling out this is that *nom* is possessed by or related to the relative subject *bagš* 'teacher' and therefore is subject to marking by RX. However, after relativization, *nom* is now within the matrix clause, and is related to the matrix subject by virtue of being acted on by it. Unfortunately, LF fails to dissolve the complex situation in which the same book is related to two different licensors. The book would have two "possessors" in a broader sense and LF cannot determine which one "possesses" the book. All in all, relicensing of RX by a different subject leads to the failure of RX.

Importantly, these properties resemble the properties of Binding Principle A — an anaphor must be bound within its binding domain. Three uncontroversial facts about Binding Principle A are notable in English and many others. **First**, the reflexive *self* is out in nominative position.[18] **Second**, anaphors, which contain *self*, are bound by a local subject.[19] **Third**, rebinding is disallowed. For example, in (97), *herself* is bound by *Martha*, which is a local subject, within the DP and is inaccessible for rebinding by *Heidi* within the CP, a larger domain containing a potential antecedent.

[18] Notice that sentences like the following do not serve as counterexamples of the conclusion that *self* is excluded in a nominative position. In (i), *himself* arguably functions as an adjunct rather than an argument.

(i) I expected Bill_i to win even when he_i himself didn't. (Culicover and Jackendoff 2005: 297)

[19] So-called "local subject" includes a nominative or accusative subject of my clause and a genitive subject of nominalized "predicate" such as *description*.

(96) Attaching to nominative disallowed:

*Chris$_i$ said [$_{CP}$ that himself$_i$ was appealing].

(97) Bound by local subject:

John made her$_i$ love herself$_i$.

(98) Rebinding disallowed:

[$_{CP}$ Heidi$_i$ believes [$_{DP}$ Martha$_j$'s description of herself$_{*i/j}$]].

The following description of (95) and (98) helps clarify the resemblance between the third property of RPP and that of Principle A. In (95), *bagš* 'teacher', the subject of the relative clause, is not coreferential with *Baatar*, the matrix subject, which leads to the failure of RPP, with RX as its hallmark. This is because *nom* 'book' is first related to (possessed by, loosely speaking) the subject of the my clause, *bagš* 'teacher',[20] before the merger of the matrix verb, and then it (*nom* 'book') enters a new relation, but this time with the matrix subject. That is, RPP applies to the same item twice, leading to ungrammaticality. In (98), *Martha* binds (*her* in) *herself* and therefore there cannot be another NP, say *Heidi*, to bind it. If *herself* is bound twice, the derivation crashes at LF.

These facts suffice to illustrate that RPP in Mongolian is a special type of binding, with RX behaving in a similar way to *self*, as described below. Binding Principle A with *self* can be viewed as a type of simplex dependence in the sense that in *John loves pictures of himself*, for example, *John* and *him* in the anaphor *him-self* are coreferential, where *self* is employed as a marker of the coreferentiality/reflexivity. In contrast, RPP is a complex dependence in the sense that in, for example, (100), *Baatar* and the pronoun *öörin* 'own', the genitive form of *öör* 'self', are coreferential, where RX is employed as a marker of the coreferentiality/reflexivity. Morphologically, *self* is present on the possessor, while RX is present on the possessum.

(99) John$_i$ loves pictures of him$_i$-self.

(100) Baatar$_i$ öör$_i$-in nom-ϕ-oo mart-san.

[20] In the surface, this subject is genitive but not nominative because it is not a matrix subject. *Nom* 'book' itself remains bare, without being attached by RX. Notice that RX is attached to the whole DP.

Baatar self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.'

For Binding Principle A with *self*, a simplex dependence, the binder and the bindee are present simply as an antecedent, e.g., *John* in (99), and the accusative pronoun in an anaphor, e.g., *him* in *him-self*.[21] In contrast, for RPP, a complex one, the binder is present as a nominative subject, e.g., *Baatar* in (100), and the bindee is the genitive pronoun *öör-in*, which may be absent at PF. Most importantly, both the reflexive markers *self* and RX are attached only to non-nominative elements that resist rebinding/relicensing and both are bound/licensed by a local subject.

6.2. Implementing binding

The analysis of binding to propose in this subsection results from the combination of the "portmanteau-formation" analysis and the feature-valuation analysis (Reuland 2019). Reuland (2019) presents a line of reasoning in which binding is Agree, which is an operation for DP subjects to value phi-features on anaphors. Reuland (2019) assumes that phi-features of anaphors start from the specifier of TP in a binding context since Agree requires tense as well as case to participate in it. This is a different approach than Kratzer (2009), who argues that phi-features of anaphors start out from the specifier of vP, as we reviewed in section 1. For Kratzer (2009), binding is not feature-valuation, but rather feature-transmission, which is not Agree per se. The essential difference between feature-valuation and feature-transmission is that for the former, unvalued phi-features are encoded by anaphors from the beginning, while for the latter, anaphors come to have phi-features after they receive them from a local subject. Rooryck and Vanden Wyngaerd (2011) also assume that phi-features of anaphors originate from a local subject in Spec of vP. Rooryck and Vanden Wyngaerd (2011) also argue that phi-features are specified for anaphors via Agree, which takes place between anaphors and local subjects merged in Spec of vP. Rooryck and Vanden Wyngaerd (2011), however, assume that anaphors are not bindees but binders, whereas local subjects are bindees, not binders. In this paper, I assume with Reuland (2019) and Rooryck and Vanden Wyngaerd (2011) that binding is feature-valuation (Agree), and with Kratzer (2009) and Rooryck and Vanden Wyngaerd (2011) that vP, as a local domain, is crucial for feature exchange in binding. Following Reuland (2019) and Kratzer (2009), I argue that anaphors are always bindees, not binders. Tying this with the

[21] However, we will see the accusative pronoun in anaphors are not the only type of bound indexicals in English.

"portmanteau-formation" analysis pursuied in this paper, we obtain the following, where [phi] sits on D from the beginning and gets valued when the structure is built up to involve merger of the subject in Spec-vP.

(101) $[_{TP} \ldots [_{vP}\ sbj_{[phi]}\ [_{DP} \ldots D_{[phi]} \ldots [_{NP} \ldots] \ldots] \ldots] \ldots]$

With the establishment of binding, the predicate concerned is a reflexive predicate, which comes to be marked by an appropriate morpheme, in accordance with Principle B advocated by R&R (1993), Reuland (2014) and Reinhart (2016) among many.

(102) Condition B: A reflexive semantic predicate is reflexive-marked. (R&R 1993: 678)

In English, for example, spanning applies to [phi] and [ref], and *HE-self* is chosen for vocabulary insertion into the spanning.

(103) $[_{TP} \ldots [_{vP}\ sbj_{[phi]}\ [_{DP}\ \ldots\ D_{[phi]} \ldots D_{[ref]} \ldots] \ldots] \ldots]$

HE-self

The case in which [poss] is involved is illustrated by the Mongolian reflexive possessive pronoun *(mini) öör-in*. Fusion, not spanning, applies to [poss] and [phi] as well as to [poss] and [ref], followed by VI, which chooses *mini* and *öör-in* for the relevant D heads, respectively.

(104) $[_{TP}\ [_{vP}\ sbj_{[phi]}\ [_{DP} \ldots D_{[phi,\ poss]} \ldots D_{[ref,\ poss]} \ldots [_{NP} \ldots] \ldots] \ldots] \ldots]$

↑ ↑

mini öör-in

However, $D_{[ref,\ poss]}$ is irrelevant to the implementation of binding; it is ([phi] in) [phi, poss] that comes to be relevant. After valued, [phi, poss] is assigned the morpheme *mini*, for example. With binding established, [ref] in [ref, poss] gets evoked and a reflexive interpretation is produced. The reflexive interpretation must come with a corresponding morpheme, complying with Condition B in (102). That corresponding morpheme comes as what we call an anaphor,

öör here in Mongolian.

The proposed analysis thus successfully accounts for binding of accusative anaphors and genitive anaphors in possessive DPs straightforwardly. Importantly, it is also applicable in cases in which RX interacts with embedded (in a broad sense) clauses. Recall that the subject of a complement clause without *gež* is the genitive anaphor *öör-in* and that the subject of a complement clause with with *gež* is the accusative *öör-ig*, as exemplified below.

(105) Baatar öör-ig-öö buruud-san gež med-sen.
Baatar-NOM self-ACC-RX go wrong-PST COMP know-PST
'Baatar realized that he was wrong.' (=(33))

(106) Baatar (öör-in) buruud-san-aa meder-sen.
Baatar-NOM self-GEN go wrong-PST-RX admit-PST
'Baatar admitted that he was wrong.' (=(36))

We first need to determine the position of the genitive and accusative subjects. Fong (2019) observed that the accusative subject of *gež* clauses is raised to Spec-CP, thereby becoming accessible from the matrix *v*. Thus, *öör* of *öör-ig-öö* in (105) is within the binding domain and bound by the matrix subject in Spec-vP, as illustrated below.

(107) [$_{TP}$ [$_{vP}$ Baatar$_i$ [$_{CP}$ öör$_i$ [$_{TP}$ t_i [$_{vP}$ t_i buruud] -san] gež] med] -sen]

Note, however, that *öör* can still be coindexed with the matrix subject when it is within the emdedded TP, as shown below.

(108) Baatar$_i$ Dorž$_j$-ig öör$_{i/*j}$-ig-ni šüümjil-sen gež hel-sen.
Baatar-NOM Dorž-ACC self-ACC-PSS[3] criticize-PST COMP say-PST
'Baatar said that Dorž criticized him (= Baatar).'

Öör is an object and follows the embedded subject *Dorž*, suggesting that it is inside TP. Interestingly, *öör* is not marked by RX, but by the third person possessive suffix (PSS[3]) *-ni*. PSS[3] here serves to indicate that *öör* refers to a person other than *Dorž*. It does not indicate that *öör* refers to the matrix subject *Baatar*. Therefore, reflexivity is not obtained between them but coreferentiality is. Recall that reflexivity is a dependency that arises between specifiers

(section 4). Even reflexivity defined by R&R in a narrow sense is not obtained between *öör* and *Baatar*.

(109) A predicate is reflexive iff two of its arguments are bound by the same λ-operator.
(Reuland 2014: 11)

There is no such predicate in (108); neither is a reflexive marker such as RX there. However, *öör* indeed refers back to the matrix subject *Baatar* and is bound by it. This instantiates the case violating Pinciple A of SBT. A similar fact is observed in Chinese.

(110) Zhangsan shuo Lisi piping le ziji.
Zhangsan say Lisi criticize PST self
'Zhangsan said that Lisi criticized him (=Zhangsan or Lisi)'

It has sometimes been claimed that this is a typical example of long-distance binding. However, the complex anaphor *ta ziji* cannot be bound by the matrix subject *Zhangsan*.

(111) Zhangsan shuo Lisi piping le ta ziji.
Zhangsan say Lisi criticize PST he self
'Zhangsan said that Lisi criticized himself (=Lisi)'

This comparison suggests that [phi] contained in the anaphor must be valued for local-binding to hold. In (111) as well as (108), [phi] remains unvalued by [phi] on the local subject. Therefore, it is subject to indexation with any element with [phi] other than the local subject. Another way of spelling out this is to say that the value of [phi] on the matrix subject just happens to be picked up by the anaphor in the embedded clause, resulting in coreferentiality. However, this coreferentiality is not reflexivity. This is why RX is not present on *öör* in (108). In the Chinese sentence in (111), since [phi] on the anaphor is not valued by the local subject *Lisi*, the anaphor cannot contain the third person singular morpheme *ta*. In contrast, [phi] is spelled out by *ta* and the complex anaphor *ta ziji* refers to *Lisi*.

Similarly, in (112), [phi] on *öör* is valued by that on the embedded subject, leading to both coreferentiality and reflexivity. Therefore, RX, the hallmark of reflexivity, is present on *öör*, which thus refers to the embedded subject, rather than the matrix subject.

(112) Baatar$_i$ Dorž$_j$-ig öör$_{i/*j}$-ig-ni šüümjil-sen-ig med-ne.
Baatar-NOM Dorž-ACC self-ACC-PSS[3] criticize-PST-ACC know-PRS
'Baatar knows that Dorž criticized him (= Baatar).' (=(53))

It then follows that when coindexed with matrix subjects, *öör* and *ziji* in embedded clauses are not bound by matrix subjects, given that binding is valuation of [phi] in a local domain (Rooryck & Vanden Wyngaerd 2011; Reuland 2014). Therefore, the so-called long-distance binding does not exist in a strict sense. This is compatible with the view that reflexivity is syntactically conditioned by binding (Reuland XXX). In this sense, RPP in Mongolian is indeed a type of binding.

Returning to XXX, *öör-ig-öö* is located on Spec-CP and bound by the matrix subject.

(113) Baatar öör-ig-öö buruud-san gež med-sen.
Baatar-NOM self-ACC-RX go wrong-PST-RX COMP know-PST
'Baatar realized that he was wrong.'

This is exactly what is predicted Bošković's (2016) formulation.

(114) [A]n anaphor can be bound outside of its own minimal phase XP only if it is located at the edge of the phase (the anaphor then does not really 'belong' to phase XP; rather, it belongs to a higher phase). (Bošković's 2016: 14)

If CP is a phase, then *öör-ig-öö* is at its edge and belongs to the higher phase, being accessible from the matrix clause.

Regarding the genitive anaphor *öör-in* as the subject of embedded clauses, I argue that it is located on Spec-DP that contains a clausal structure.

(115) Baatar öör-in buruud-san-aa meder-sen.
Baatar-NOM self-GEN go wrong-PST-RX admit-PST
'Baatar admitted that he was wrong.' (=(36/106))

Specifically, TP is selected by D$_{[poss]}$ with the *HOLD* semantics. This is plausible given that TPs are subject to nominalization (Kornfilt and Whitman 2011; 2012), as evidenced by cross-linguistic data including English possessive gerund construction and many others.

(116) I learned about John's smoking stogies. (Abney 1987: 109)

As observed by studies such as Abney (1987) and others, the morpheme *ing* spells out a nominalizing head that selects the verbal core as its complement to form an NP and that the genitive subject occupies the specifier of a D head selecting the NP. In this sense, the genitive subject is some kind of possessor that holds the event as a possessum under its control. Gong (2023) reasoned out that TP nominalization takes place in Mongolian. All this said, I argue that the genitive case marker *-in* in *öör-in* is a realization of the possessive D head, whose Spec is occupied by *öör*.

(117) $[_{TP}\ [_{vP}$ Baatar$_i$ $[_{DP}$ öör$_i$ D(=in) $[_{TP}\ [_{vP}\ t_i$ buruud] -san-aa]] meder] -sen]

To elaborate, a bare D with an unvalued [phi] and [ref] is introduced as an external argument by *v*, and subsequently moves to Spec-DP. Since *öör-in*, located in Spec-DP, is outside of the minimal phase DP (D' traditionally), it is accessible from the matrix clause. This makes it possible that [phi] on *öör* is valued by that on the matrix subject via Agree/binding, thereby evoking [ref]. After fusion applies, VI chooses the morpheme *öör-in* for $D_{[ref,\ poss]}$. $D_{[phi,\ poss]}$ is realized as the third person singular possessive pronoun *tüün-ne*, which, however, is not absent at PF and even prevented due to economy principles such as (89). Interestingly, such principles even allow $D_{[ref,\ poss]}$ to be absent, as exemplified below.

(118) Baatar buruud-san-aa meder-sen.
Baatar-NOM go wrong-PST-RX admit-PST
'Baatar admitted that he was wrong.'

Importantly, binding holds and reflexivity is obtained even when the (genitive) anaphor is not overt. This is why RX is present. Note that the presence of RX on *öör-in* is not favored, arguably because the structure in (88), in which an embedded possessive structure is contained, is less economic and less preferred compared with the structure in (91), which does not contain an embedded possessive structure. What occupies Spec-DP is thus a simple *öör*. If no possessive structure is contained, the semantic predicate *HOLD* does not hold. This means that for *öör-in* therein is not a possessum that can host RX. RX is thus present elsewhere, thus deriving EMC

in (41).

The same holds true in the case of relative clauses, in which the relative subject is the gentive anaphor *öör-in*.

(119) Baatar (öör-in) hel-sen üg-ϕ-ee mart-san.
Baatar-NOM self-GEN-RX say-PST word-ACC-RX forget-PST
'Baatar forgot the words he said.' (=(38))

As shown below, the relarive clause is located in Spec-NP, and a bare D with unvalued [phi] and [ref], which is base-generated in Spec-vP, moves out from the clause (TP/RC) to Spec-DP, headed by $D_{[poss]}$. Fusion applies so that $D_{[ref, poss]}$ and $D_{[phi, poss]}$ are derived. Since [phi] is now within the same domain as the matrix subject, it gets the value of [phi] on the matrix subject and [ref] is evoked. VI applies and *öör-in* spells out $D_{[ref, poss]}$, as with the case of (117).

(120) $[_{TP}\ [_{vP}\ \text{Baatar}_i\ [_{DP}\ \text{öör}_i\ D\ [_{NP}\ [_{TP(=RC)}\ [_{vP}\ t_i\ \text{hel}\ ]\ \text{-sen}\ ]\ \text{üg-ee}\ ]]\ \text{mart}\ ]\ \text{-san}\ ]$

Again, *öör-in* can be absent at PF. The head of the relative clause, which is a TP, not a CP, is a right head and therefore follows any other elements in the DP, being able to host RX.

6.3. Categorial status and position of RX

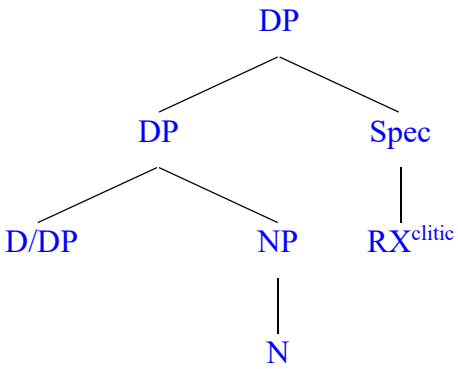
It is quite clear from the above discussion that it is RX rather than the anaphor *öör* that is the hallmark of reflexivity and binding in Mongolian (RPP). Note that *öör* can be absent while RX is always required in a reflexive context.

Regarding the categorial status of RX, traditional grammarians refer to it as a suffix, without discussing its exact status. Among theoretical studies, Maki et al. (2015: 67ff) labeled RX "pronouns" and Gong (2023) treated it as a D head. Maki et al. (2015: 67ff) proposed that RX undergoes LF movement to its antecedent, e.g., the subject. However, RX can never be an element that can be characterized as a reflexive pronoun. It lacks a specification of any nominal features, which a pronoun may have. Functionally, RX is similar to anaphors (or reflexive pronouns), but it should belong to a different category. According to Gong (2023), RX as a D head selects *n*P, where *öör*, she assumes, is a noun much like a common noun. However, treating RX as D fails to account for several facts, as noted in section 1.

Given that RX is an outermost element in a DP, it is supposed to occupy an adjunct/specifier position. However, this would imply that it is a phrasal element, contra the

fact that it does not display any properties displayed by phrases; it lacks a specification of phi-features (person, gender and number) and is unable to move. This in turn indicates that it is a head-like element.[22] This ambivalent property of RX suggests that it is in fact a clitic-like element. Note that clitics are generated as specifiers of a null head (Bošković 1997b; 2002b). This leads us to the following representation, in which RX sits in the rightmost specifier of DP.

(119) Position of RX as a clitic



In this structure, D/DP takes care of phi-features, which are acquired via feature valuation (Agree) in the case of determinative elements including pronouns such as *ter*, anaphors such as *öör*, and possessive head such as *-in*, and NP/N represents a lexical core, if any, which serves as the host of RX in the linear structure.[23]

This said, RX occurs to the right of N, *nom* here, as in (120).

(120) Baatar öör-in nom-*ϕ*-oo mart-san.
Baatar-NOM self-GEN book-ACC-RX forget-PST
'Baatar forgot his own book.'

However, as exemplified below, RX can also occur to the left of N.

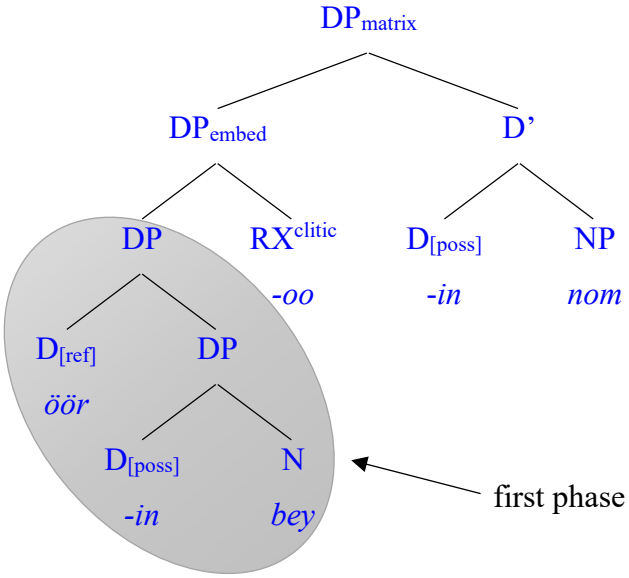
(121) Baatar öör-in-öö nom-ig mart-san.
Baatar-NOM self-GEN-RX book-ACC forget-PST
'Baatar forgot his own book.' (= (11))

[22] See Chomsky (1995a) and Bošković (1997b; 2002b) for relevant discussion on the ambiguous property of clitics, which behave like both X^0 or XP.

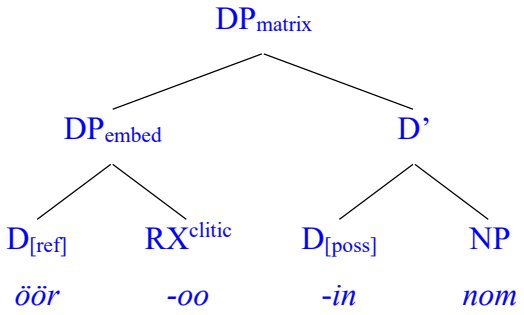
[23] Notably, RX is a nominal clitic, unlike, for example, what is referred to as the "reflexive clitic" *se* in Slavic languages, which is identified as a verbal clitic (Reinhart 2016: 189-191).

As shown below, *öör-in-öö nom* may have the structure in either (88) or (91), as discussed earlier. In any case, RX precedes *-in* in the hierarchical structure, contrary to the linear oder. Note that *-in* in the surface structure is the realization of the matrix $D_{[poss]}$, not the embedded $D_{[poss]}$, as is clear from (123), where the embedded $D_{[poss]}$ is squeezed out due to a certain morpho-syntactic spell-out constraint.

(122) Structure of *öör-in-öö nom*, with first phase derivation of *öör-in* ([phi] left out)[24]



(123) Structure of *öör-in-öö nom*, without first phase derivation of *öör-in* ([phi] left out)



Given this, it might seem that the structures in (122) and (123) are incorrect. However, there is solid reasoning for justifying these structures, as discussed in section 5. The crux of matter is then to determine how RX is constrained by a morpho-phonological principle. It is in fact quite clear that RX is not part of an anaphor or a pronoun. It is merely a marker of reflexivity. It,

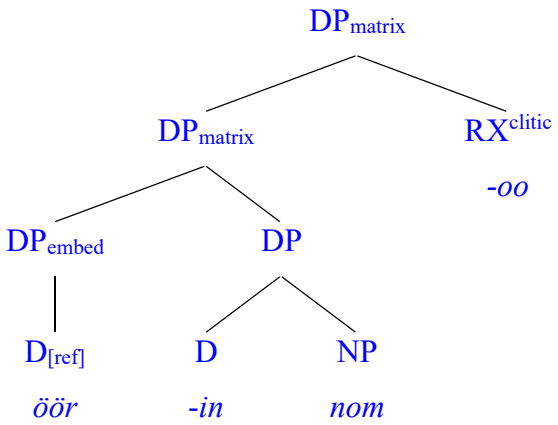
[24] This analysis may be carried over to complex forms such *your all's* (Deal 2006) in English, where $D_{[phi, poss]}$ and N in the embedded DP are spelled out by *you-r* and *all* respectively, and the matrix $D_{[poss]}$ is spelled out by *'s*.

being a clitic, has no ability to project in syntax. Importantly, it is subject to vowel harmony, as also suggested by the fact that it has allophonic variants such as -*aa*, -*oo*, -*öö*, and -*ee*. This indicates that what detemines the position of RX are not only a syntactic rule such as RPP and a semantic notion such as a reflexive-possessive relation, but also a spell-out rule. This said, I argue that insertion of RX follows that of all other materials required in forming an anaphor and spelling out a possessive relation. This is to say that $D_{[ref]}$ in the embedded DP (DP_{embed}) and the matrix $D_{[poss]}$ are spelled out first by *öör-in*, which is inserted as an inseparable morohological unit, and then RX is inserted into a linear, not hierarchical, position adjacent to *öör-in*, resulting in *öör-in-öö*. Let us refer to this as "the late insertion rule", which is informally stated as follows.

(124) The Late Insertion Rule (LIR)
RX is inserted after the morpheme(s) required for DP formation are inserted.

LIR, essentially a spell-out rule, interacts with a syntactic condition to describe below. RX being subject to LIR implies that the right Spec of DP_{embed} is empty in syntax. Notably, RX can also be inserted into a position right to *nom*, specifically the right Spec of DP_{matrix}, forming *öör-in nom-oo*. In that case, *öör-in*, not being the host of RX, can be absent at PF.

(125) Structure of *öör-in nom-öö*, without first phase derivation of *öör-in* ([phi] left out)



Regarding (122) and (123), the reason for the conjecture that the syntactic position of RX is within the embedded DP is that RX is required to be hierarchically adjacent to the DP requiring it. That is, it is required to occur in the right Spec of DP_{embed}, which requires it. RX is required by DP_{embed} because there is $D_{[poss]}$ in DP_{embed} in terms of its first phase derivation, although $D_{[poss]}$ is ultimately squeezed out in the matrix DP. Therefore, an ideal result is the following:

RX is positioned within DP_{embed} when the first phase derivation takes place, producing a possessive semantics and forming *öör-in-öö nom*; on the other hand, RX is positioned within DP_{matrix} when DP_{embed} comprises $D_{[ref]}$ but nothing else, producing a non-possessive semantics and forming *öör-in nom-oo*. In this sense, the representations in (122) and (125), not (123), remain the most appropriate. The common property of (122) and (125) is that the syntactic position of RX c-commands the possessive D head, namely, $D_{[poss]}$, which contributes to the liensing of RX. As discussed in sections 4 and 6.2, RX is licensed by a subject that binds the element in Spec of $D_{[poss]}$, by providing values of [phi] to *öör*. Reflexivity thus arises and RX is called for. In other words, $D_{[poss]}$ wants RX to be adjacent to its own projection. Let us refer to this property as "the adjacent condition", which is informally stated as follows.

(126) The Adjacent Condition (AC)[25]
RX is hierarchically a sister of DP, D being a possessive determiner head and its Spec bound by a local subject.

The syntactic position of RX is thus determined by AC and its linear position is determined by LIR, which is preceded by AC but has an adjusting effect on AC during the process of derivation. AC accounts for and is supported by the fact that *gež* clauses and adverbial clauses allow neither a genitive subject nor a rightmost RX (RX that occurs in a rightmost position), whereas object clauses without *gež* and relative clauses allow both a genitive subject and a rightmost RX. *Gež* clauses are CPs and therefore are not subject to nominalization, unlike TPs, and adverbial clauses, being adjuncts and lacking argumenthood, are not subject to nominalization, either. Failing to have a nominal status, they cannot be selected by $D_{[poss]}$, and therefore do not satisfy AC. Due to the lack of $D_{[poss]}$, genitive subjects are disallowed in *gež* clauses and adverbial clauses. Recall our observation in section 2 that the accusative subject *öör-ig*, which is bound by the matrix subject, in *gež* clauses and adverbial clauses must not be absent at PF. This is because a rightmost RX cannot be present in them due to AC (specifically due to the lack of $D_{[poss]}$). With absence of a rightmost RX, the accusative subject does not satisfy EMC in (41). Nominalized clauses have a genitive subject and allow it to be absent, where EMC is satisfied.

[25] AC as well as LIR is not presented as a universally holding principle. For the moment, it remains a sptipulative formulation of a language-specific property. However, if any cross-linguistic facts are found to be supportive of it, AC as well as LIR would prove to be a more general property.

7. Conclusion

The binding literature has ignored the reflexive binding in languages such as Mongolian to a large extent. What makes Mongolian differ from other languages is that the hallmark of binding in Mongolian is not an anaphor (*öör*) but rather a suffix (*-aa*) that is used to mark reflexive possessive relations. This paper showed that Binding Principle A exists in the form of the Reflexive Possessive Principle in Mongolian. At least three important implications that arise from the proposed analysis of Mongolian binding suggest more general cognitive properties concerning binding and anaphors. First, anaphors are not morpho-phonologically obligatory elements for binding when there is another way of marking it. Second, in languages in which anaphors are the hallmark of binding, only anaphors containing morpho-phonologically realized phi-features are subject to Principle A. Third, reflexive binding is an identity relation between specifiers. Fourth, a first phase derivation may play important roles in forming and interpreting anaphors, especially body(part) anaphors.

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