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The Reflexive-Possessive Rule in Mongolian as Binding Principle A and Its Implications for English

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Abstract This short article shows that the Reflexive-Possessive Rule in Mongolian is a special kind of Binding Principle A, given the properties of the Reflexive-Possessive suffix *-aa* that resemble the nominative-resisting and rebinding-resisting properties of anaphors, and analyses its implications for possessive pronouns and anaphors in English. Two major claims are made on English. First, *one's own* in English is a possessive reflexive pronominal with a complex morphology. Second, sentences such as *John loves his pictures*, when coreferentiality is assigned to the subject and the possessive pronoun, involve an implicit possessive pronoun *own* and therefore are subject to Principle A, not to Principle B, with no violation of it.

Keywords: Reflexive-Possessive Rule, Binding Principle A, Mongolian, English

1. Introduction

The element to which the reflexive possessive morpheme *-aa*, notated as RX,[1] is attached is obligatorily interpreted as referring to something possessed by or associated with a nominative subject. This is known as "Ерөнхийлөн Хамаатуулах Нөхцөл", which translates into "the Reflexive-Possessive Rule" (RPR) in Mongolian grammar. RX has two salient syntactic properties. First, it is attached to an element that acts as a possessum but is never attached to a nominative element. It freely cooccurs with non-nominative case markers on non-nominative subjects, direct or indirect objects, secondary predicates and adverbials (Street 1963; Anisman 2010; Guntsetseg 2011, 2012; Janhunen 2012; Kullmann and Tserenpil 2015). In this paper, we are particularly concerned with the case in which RX is attached to an accusative-marked object.

(1) *Nom-**oo** huučira-v.
book-NOM-**RX**[2] become old-PST
'(Someone's) book got aged.'

(2) *Nom-ig-**oo** marta-v.
book-ACC-**RX** forget-PST

[1] 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.
[2] The abbreviations to use in this paper include ACC: accusative, DAT: dative, GEN: genitive, NFIN: non-finite, NOM: nominative, PS: passive, PST: past, and RX: reflexive-possessive suffix.

'(Someone) forgot his book.'

Second, it is never attached to a possessum with two non-identical possessors.[3] In (3), the book is possessed by the teacher and therefore *nom* 'book' is obligatorily marked by RX, *-oo*. On the other hand, the book is associated with the subject by virtue of being involved in the forgetting event initiated by it and therefore *nom* 'book' is required to be marked by RX. That is, RX expresses two reflexive possessive relations at the same time, which, however, leads to the failure of an appropriate interpretation at LF.

(3) *Baatar bagš-in nom-ig-**oo** marta-v.
Baatar-NOM teacher-GEN book-ACC-**RX** forget-PST
'Baatar forgot the teacher's book.'

These two properties of RPR resemble the properties of Binding Principle A — an anaphor must be bound within its binding domain. Two uncontroversial facts about Binding Principle A are notable in English and many others. First, the reflexive *SELF* is out in a nominative position, as illustrated in (4).[4]

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

Second, rebinding is disallowed. For example, in (5), *herself* is bound by *Martha* within the DP and is inaccessible for rebinding by *Heidi* within the CP, a larger domain containing a potential antecedent.

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

Based on a closer examination of RPR in section 2, this paper claims in section 3 that RPR instantiates Binding Principle A and in section 4 that English has a reflexive possessive pronominal, contra previous claims. Finally, a formal analysis is conducted to show the syntactic structure of reflexive possessive pronominals in Mongolian and English.

2. The Reflexive-Possessive Rule as Binding Principle A

Normally, any of the sentence elements other than nominative subjects are subject to affixation by RX. In this section, we focus on the case in which RX is affixed on accusative-marked objects. Accusative-marked objects as such fall into three types: possessive DP, DP containing a relative clause and object clause.

First, RX is attached to a possessive DP object, whether the possessor, the genitive pronoun *өөрин*, is explicit or not. Importantly, the pronoun *өөрин* is obligatorily coreferential with the subject when RX is present. That is, when the object is "possessed"[5] by the subject, RX is

[3] This resembles the switch-reference-resisting property displayed by RX in complex clausal contexts, as we will see in section 2.

[4] 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)

[5] "Possession" expressed by RX is virtual possession, rather than actual possession defined in the strict sense. It

obligatorily attached to the object. RX is disallowed for an object that is not possessed by the subject.

(6) Baatar [(öörin) nom(-ig)[6]-**oo** marta-v.
Baatar-NOM self-GEN book-ACC-**RX** forget-PST
'Baatar forgot his (own) book.'

Second, RX is attached to a DP object that contains an object relative clause.

(7) Baatar [bagš-aas-aa sur-san hičeel-(*ϕ*)]-**ee** marta-v.
Baatar-NOM teacher-ABL-RX learn-NFIN lesson-ACC-**RX** forget-PST
'Baatar forgot the lesson that he learned from his teacher.'

However, not all object relative clauses within the object are compatible with RX. As exemplified in (8), RX is out in the case that the subject of the relative clause is not coreferential with the subject of the main clause. That is, RX is incompatible with switch reference.[7]

(8) *Baatar [bagš-in-(h)aa zaa-san hičeel]-**ee** marta-v.
Baatar-NOM teacher-GEN-RX teach-NPST lesson-ACC-**RX** forget-PST
'Baatar forgot the lesson that his teacher taught.'

This property is also displayed by cases in which the object contains a subject relative clause, as illustrated in (10), in which no switch reference is obtained between the subjects of main and relative clauses and therefore RX is present.

(9) Baatar [gee-gd-sen nom(-ig)]-**oo** olž av-la.
Baatar-NOM lose-PS-PST book-ACC-**RX** find-PST
'Baatar has found his book that was lost.'

Third, RX is attached to a nonfinite verb signaling the boundary of an object clause, as exemplified in (10). Morphologically, RX is attached to the verb but in syntax, it is attached to the whole verb phrase.

(10) Baatar [ger-t-ee hari-h][8]-**aa** marta-v.
Baatar-NOM home-DAT-RX return-NFIN-**RX** forget-PST
'Baatar forgot to return home.'

Again, RX must not be present when switch reference is obtained, as shown below.

(11) *Baatar [Bat-in ger-t-ee hari-h]-**aa** hara-b.

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always extends to include a dealing-with relation. For example, in (6), when the possessive pronoun *öörin* is absent, the book is either actually possessed by the subject or acted on (that is, dealt with) by him, or both. For detailed discussion on the interpretive properties of RX, see (Guntsetseg 2012: 101).

[6] The accusative marker *-ig* may or may not be present in colloquial Mongolian, without affecting the use of RX.

[7] See Anisman (2021) for detailed discussion on switch reference in Mongolian. See also discussion on (2) in section 1.

[8] Here, no accusative case marker is present morphologically.

Baatar-NOM Bat-GEN home-DAT-RX return-NFIN-**RX** see-PST
'Baatar saw Bat return home.'
'Lit. Baatar saw Bat's returning home.'

After outlining the basics of RPR, in what follows, we elaborate on its properties as Binding Principle A mentioned in section 1. First, the property that RX is incompatible with switch reference resembles the rebinding-resisting property of Binding Principle A sketched in (5). To elaborate, in (8), for example, *bagš* 'teacher', the subject of the relative clause, is not coreferential with *Baatar*, the matrix subject, which leads to the failure of RPR. This is because *hičeel* 'lesson' is first associated with (virtually possessed by) the subject of the my clause, *bagš* 'teacher',[9] before the merger of the matrix verb, and then it (*hičeel* 'lesson') enters an association (possession) relation again, but this time with the matrix subject. That is, RPR applies to the same item twice, leading to ungrammaticality. The same holds true in (11).

Second, as seen in (1) and below, RX is never attached to a nominative phrase; that is, the host of RX never occurs in a nominative position. This resembles the nominative-resisting property of Binding Principle A sketched in (4).

(12) *[Baatar-in bagš]-**aa** hičeel zaa-v.
Baatar-GEN teacher-NOM-**RX** lesson-ACC teach-PST
'Baatar's teacher taught a lesson.'

(13) *Baatar bagš-**aa**[10] hičeel zaa-h-ig hara-v.
Baatar-NOM teacher-NOM-**RX** lesson-ACC teach-NFIN-ACC see-PST
'Baatar saw that his teacher taught a lesson.'

These findings indicate that RPR in Mongolian is a special type of binding, with RX behaving in the same way as *SELF*, as described below.

Binding Principle A 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. RPR, by contrast, is a complex dependence in the sense that in, for example, (15), *Baatar* and the pronoun *öör-in* 'own', the genitive form of *öör* 'self', are coreferential, where RX is employed as a marker of the coreferentiality. Morphologically, *SELF* is realized on the possessor, while RX is realized on the possessum.

(14) John$_i$ loves pictures of him$_i$-SELF.

(15) Baatar$_i$ öör$_i$-in nom-**oo** marta-v.
Baatar self-GEN book-**RX** forget-PST

For Binding Principle A, a simplex dependence, the binder and the bindee are present simply as an antecedent, e.g., *John* in (14), and the accusative pronoun in an anaphor, e.g., *him* in *him-*

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

[10] For such a structure to be grammatical, the embedded subject must appear with genitive case as in *bagš-in-aa*.

SELF.[11] In contrast, for RPR, a complex one, the binder is present as a nominative subject, e.g., *Baatar* in (15), and the bindee is optionally realized as the genitive pronoun *öörin*. Most importantly, both the reflexive markers *SELF* and RX are attached only to non-nominative elements that resist rebinding.

3. The RPR's Implications for English

Given that *öörin*, which translates as '(somebody's) own' or 'of oneself', is the genitive form of the reflexive pronoun *öör*, it is a reflexive possessive pronominal. The following properties are notable for *öörin*. First, it must be coreferential with the subject. Second, it is ommittable, remaining an implicit element, with RX present. Third, it can be preceded by a possessive personal pronoun, for example, *tüün-ne* 'his', which is also often absent from the surface structure.[12]

(16) Baatar$_i$ nom-**oo** marta-v.
Baatar$_i$ öör$_i$-in nom-**oo** marta-v.
Baatar$_i$ tüün$_i$-ne öör$_i$-in nom-**oo** marta-v.
Baatar 3SG-GEN self-GEN book-RX forget-PST
'Baatar forget his (own) book.'

Interestingly, English has a pronominal that behaves the same way as *öörin*. That pronominal is *own*. As exemplified in (17), *own* must be coreferential with the preceding possessive personal pronoun and the subject as in the case of *öörin*. In addition, *own* can be omitted when there is a way to express the possessive relation.

(17) John$_i$ loves [his$_i$ own$_i$ pictures].
*John$_i$ loves [his$_i$ own$_j$ pictures].
*John$_i$ loves [his$_j$ own$_j$ pictures].
*John$_i$ loves [his$_j$ own$_i$ pictures].
*John$_i$ loves [his$_j$ own$_k$ pictures].

An important difference between *öörin* and *own* lies in the fact that *öörin* can head the possessive DP, without a personal pronoun such as *tüün-ne* 'his', while *own*, when present, must be preceded by a personal pronoun like *his*. This difference is attributed to the parametric fact that Mongolian is a zero-determiner language much like Japanese and Chinese, while English is not.[13] Importantly, the properties of *öörin* and *own* as instantiating Binding Principle A is not affected by this difference.

Notably, sentences such as (17) can be paraphrased by sentences such as (18), in which the constellation formed of the preposition and the reflexive pronoun, i.e., *of himself*, is identical in function to *his own*, both encoding the meanings of possession and reflection.

[11] However, we will see the accusative pronoun in anaphors are not the only type of bound indexicals in English.
[12] This is arguably due to the multiplicity of exponents of the possessive reflexive relation.
[13] This means that possessive personal pronouns are exponents of a D head.

(18) John$_i$ loves [pictures of him$_i$-SELF].

Tying this with the property shared by *own* and the possessive reflexive pronominal *öör-in*, it is reasonable to say that *one's own* is a possessive reflexive pronominal with a complex morphology. This is a challenge to a previous claim (Truswell 2014: 226, for example) that English does not have a possessive reflexive pronominal. It then turns out that what does not exist in English as previously claimed is *oneself's* and what does exist is a possessive reflexive pronominal, namely, *one's own*. Notice that *one's own* is not a lexical item from the lexicon but a constellation of lexical items.

Consequently, (19) is subject to Principle A, not to Principle B. This accounts for why such sentences give rise to the prima facie violation of Principle B.

(19) John$_i$ loves his$_i$ pictures.

(20) Bill$_i$ loves his$_j$ pictures.

Concretely speaking, in (19), there is an implicit possessive pronoun *own*, as illustrated in (21), which is not true in (20). In (21), the complex *his own* as a whole behaves as a possessive reflexive pronominal.

(21) John$_i$ loves his$_i$ *own*$_i$ pictures.

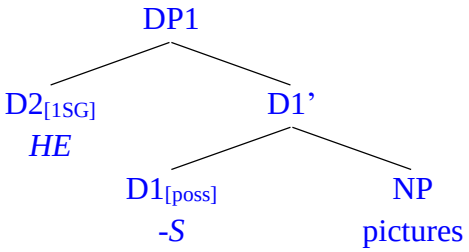
It then follows that the so-called "lexical" ambiguity of the possessive pronouns such as *his* between a reflexive and a pronoun (Truswell 2014: 224) is in fact a structural ambiguity, as fleshed out below.

(22) [$_{CP}$ John$_i$ loves [$_{DP}$ his$_j$ [$_N$ pictures]]]

(23) [$_{CP}$ John$_i$ loves [$_{DP}$ his$_i$ [$_{DP}$ own$_i$ [$_N$ pictures]]]]

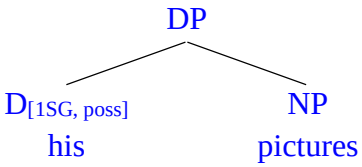
Following Davis (2023), possessive pronouns in English spell out the fused outcome of the head D and the material in its Spec. Based on a *bare phrase structure* theory of labeling (Chomsky 1995a,b), in which non-projecting heads are equivalent to phrases, Davis (2021) assumes that a bare determiner D2 occupies Spec of D1. Applying this analysis to *his pictures*, we obtain (24), in which *HE* and *-S* represent the lexical content of D2 and D1, respectively.

(24) Initial structure of *his pictures*



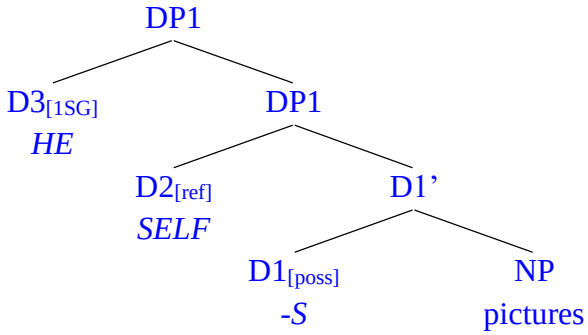
After (24) is built and before vocabulary insertion (VI) rules apply, fusion is applied,[14] thereby making D2 and D1 bundled as a single node and their features clustered on it. Next, the VI rule applies to this structure, as a result of which, a single morpheme *his* spells out multiple syntactic nodes in a 'portmanteau' fashion as in (25).

(25) Fusion of possessive D and its Spec



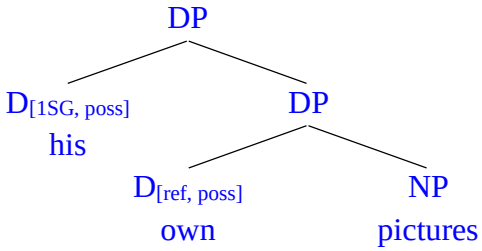
This fusion analysis of the monomorphemic pronoun such as *his* allows us to assume a structure such as (26) and (27) for the bimorphemic pronominal *his own*.

(26) Initial structure of *his own pictures*



In (26), *HE*, *SELF* and *-S* represent the lexical contents of the possessive D head, $D1_{[poss]}$, the reflexive D head, $D2_{[ref]}$, and the personal pronominal D head, $D3_{[1SG]}$, respectively. Unlike the case of *his pictures*, in (26), both fusion and the VI rule apply twice. When they apply to $D2_{[ref]}$ and $D1_{[poss]}$, *his* spells out their fused outcome, i.e., $D_{[ref, poss]}$, as in (27), and when they apply to $D3_{[ref]}$ and $D1_{[poss]}$, *own* spells out their fused outcome, i.e., $D_{[1SG, poss]}$. Importantly, after the application of fusion, DP becomes a layered projection, containing two D heads. The higher D deals with personal possession, and the lower D deals with reflexive possession.

(27) Fusion of possessive D and its Specs followed by the VI rule

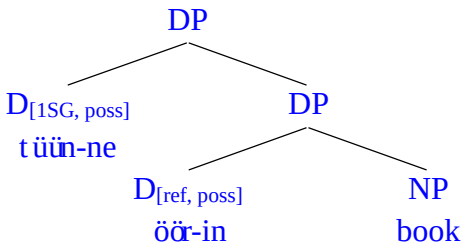


Notice that the features [ref] and [poss] are bundled on the lower head D, which leads to the possessive reflexive property of *own*.

[14] *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.

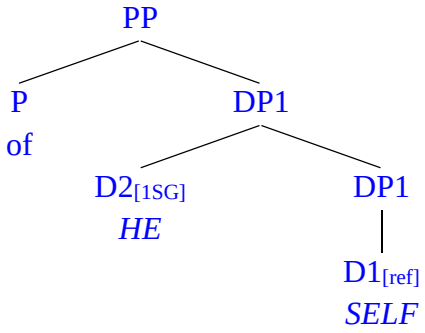
The same structure is assigned to *öör-in*. Unlike English, Mongolian may assign bimorphemes to a bundled head. *Tüün-ne* 'his' is formed of *tüün* 'he' and the genitive marker *-ne*,[15] and *öör-in* is formed of *öör* 'self' and the genitive marker *-in*.

(28) The ultimate structure of *tüün-ne öör-in nom* 'his own book'



For anaphors in PPs, e.g., *pictures of himself*, (29) is the plausible structure under the proposed analysis. Assuming that non-projecting heads are equivalent to phrases under the *bare phrase structure* theory, $D1_{[ref]}$ does not take a complement but selects another non-projecting head $D2_{[1SG]}$ in its Spec,[16] as in (24). Since there is no possessive determiner head $D_{[poss]}$ present in this structure, the VI rule does not insert a possessive form, for example, *his* into $D2_{[1SG]}$. Instead, the accusative form *him* is inserted because *HE* is assigned accusative case by *of*. The reflexive morpheme *self* is inserted into $D1_{[ref]}$. Ultimately, the complex formed from $D2_{[1SG]}$ and $D1_{[ref]}$ is spelled out by *himelf*.[17] The same holds true of the case in which an anaphor is the object of the verb, e.g., *John loves himself*.

(29) Initial structure of *(pictures) of himself*



4. Conclusion

Few studies have discussed RPR and RX in Mongolian in connection with Binding Principle A and the English pronoun *own* in connection with possessive reflexive pronominals. This paper has argued that RPR is a special kind of Binding Principle A, showing that the application of Binding Principle A is not restricted to the case in which a reflexive marker such as *SELF* is attached to the possessor. It was shown that the binding of a reflexive possessor can also be expressed by possessive reflexive pronominals such as *one's own* without a dedicated marker

[15] Two forms *-in* and *-ne* are used for marking the genitive in Mongolian.

[16] Alternatively, $D2_{[1SG]}$ may select $D1_{[ref]}$ as its complement.

[17] Notice that $D2_{[1SG]}$ and $D1_{[ref]}$ are not fused into one node. This means that only the possessive determiner $D_{[poss]}$ is subject to fusion. However, it may also be the case that $D_{[poss]}$ is syntactically present and selects a φ-less implicit nominal, as indicated by non-determiner pronominals like *hers/his/mine* in *pictures of hers/his/mine*. In fact, the φ-less implicit nominal *bey* 'body' in Mongolian points to this possibility. A separate paper will deal with this issue.

such as *SELF*.[18] Besides, the possessum can also be reflexive-marked by a morpheme such as Mongolian RX *-aa*. The morpho-syntactic significance of *өөрin* and *own* indicated that possessive reflexive pronominals exist in languages including English in one way or another. It is hoped that further exploration will reveal more facts about Binding Principle A both in Altaic languages centering on Mongolian and in English-type languages on the one hand and syntactic generalizations of the principle on the other hand.

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[18] Quite many languages e.g., Japanese and Chinese, express binding of reflexive possessor without appealing to a reflexive morpheme other than possessive pronominals.