

# External Possession and Possessor Raising

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## 1 Introduction

External possession is a phenomenon where a nominal is syntactically encoded as a verbal dependent but semantically understood as the possessor of one of its

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co-arguments. The phenomenon is very common cross-linguistically. Examples from French and Japanese are given in (1).

- (1) a. Je lui ai pris la main.  
 I 3SG.DAT have taken the hand  
 'I took his hand.'  
 b. Mary-ga kami-ga naga-i.  
 Mary-NOM hair-NOM long-be  
 'Mary's hair is long.'

(Ura 1996, 100)

The nominals interpreted as possessors in these examples bear markings typical of verbal dependents – the dative case in (1a) and the nominative case in (1b). It is instructive to compare these sentences with their counterparts in (2), where the possessor nominals are encoded syntactically as dependents of the possessum nouns. In the terms introduced by Vergnaud and Zubizarreta (1992), the comparison shows the difference between external possession, as in (1), and internal possession, as in (2).

- (2) a. J'ai pris sa main.  
 I.have taken his hand  
 'I took his hand.'  
 b. Mary-no kami-ga naga-i.  
 Mary-GEN hair-NOM long-be  
 'Mary's hair is long.'

(Ura 1996, 100)

The differences between these groups of examples concern the alignment between syntactic and semantic argument relations. To be understood as a possessor, the referent of a nominal must be related semantically to the referent of another nominal; the possessor nominal is therefore treated as a semantic dependent of the possessum. In (2), the possessor is also a syntactic dependent of the possessum, and so the syntax and semantics of the possession relation align. The external possession cases in (1) are interesting because syntactic and semantic dependency relations mismatch. On semantic grounds, the possessor behaves as an argument of the possessum noun; on syntactic grounds, it behaves as an argument of the verb.

This mismatch between syntactic and semantic argumenthood brought external possession to the attention of generative linguists starting in the late 1960s, and it has generated considerable interest ever since. Theoretical discussions begin by asking: what is the syntactic structure of clauses with external possession? How does this relate to the structure of clauses with internal possession? There are two kinds of factors that deepen the puzzle and complicate the response. First, some of the most important analytical choices rest on arguments that are not narrowly syntactic, but at the syntax–semantics interface. This makes it crucial to appreciate the semantic profile of external possession along with its syntax. Second, neither the syntax nor the semantics of external possession is entirely constant cross-linguistically. The analysis of external possession is thus very much

an exercise in comparative grammar and, accordingly, an opportunity to discover the parameters that define and rein in linguistic variation.

This chapter first surveys some of the history of generative studies in external possession. At the core of this history is the notion of *possessor raising* – an idea originally developed in transformational grammar in the 1960s and continually refined in various frameworks through to the present day. Like many of the central analyses of the generative program, the possessor-raising analysis began to be applied to a large range of unrelated languages in the late 1970s and the 1980s, and this broadening of the empirical base brought into view linguistic variation that had not been properly recognized before. Comparative and typological questions came to the forefront of investigation.

In the last three sections of this chapter, I advance a particular view of how these questions might be answered. External possession constructions are divided into two types. Type A is analyzed with tools familiar from the syntax of infinitivals: control and raising. Type B calls for a blend of the ingredients to A- and  $\bar{A}$ -dependencies.

## 2 The classic analysis: possessor raising and its heirs

The earliest generative studies of external possession center on two main ideas:

- (i) External possession is derived from internal possession via a syntactic rule.
- (ii) Therefore, external possession and internal possession are semantically equivalent.

In the simplest case, exactly one type of rule of the relevant sort would be made available by Universal Grammar. Starting in the 1970s, attempts to explicitly characterize such a rule were made across a series of generative frameworks. I will refer to these approaches collectively as “the classic analysis.”

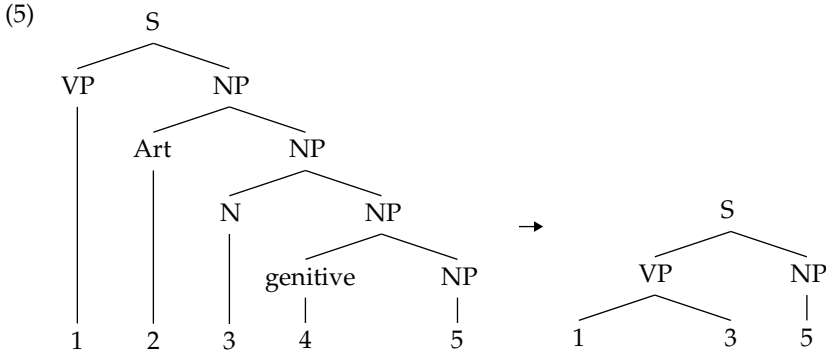
### 2.1 Possessor raising and ascension

The first steps were taken by linguists working in the framework of transformational grammar (Fillmore 1968, sect. 5; Langacker 1968; Keenan 1972; Kuno 1973, 71). In one of the more explicit proposals, Keenan (1972) proposed a transformational analysis of the relationship between Malagasy sentences like (3) and (4).

- (3) Nantsoin -dRakoto ny anaran' ny olona.  
called Rakoto the names.of the people  
'The names of the people were called by Rakoto.'
- (4) Nantsoin -dRakoto anarana ny olona.  
called Rakoto name the people  
'The people were name-called by Rakoto (i.e. called by name).'

Example (3) is a passive with *ny anaran' ny olona* ‘the names of the people’ as its subject. This contrasts with (4), where only *ny olona* ‘the people’ is subject. Keenan

proposed to relate the two sentences by means of a movement rule called POSS-RAIS. The POSS-RAIS transformation, shown in (5), takes (3) as input and moves the possessor phrase into the subject position, producing (4).



Since the subject position in Malagasy is sentence-final, this transformation produces no change to the surface order of major constituents. It does, however, feed  $\bar{A}$  processes that apply only to subjects.

Keenan's analysis came to the attention of transformational grammarians at an important time. Starting with Perlmutter and Postal (1972/1983), a new strand of thinking began to develop in the mid-1970s concerning the various raising transformations; this work eventually crystallized into a new framework, Relational Grammar (RG). Perlmutter and Postal's discussion of the Malagasy facts in their seminal (1972/1983) paper set the stage for a series of discussions of external possession within RG (Aissen 1979; 1987; Kimenyi 1980; Harris 1981; Bell 1983; Hubbard 1985; Davies 1986; Choi 1988; Allen et al. 1990).

The RG approach carried over from its transformational antecedent the idea that sentences with external possession, like (4), are ultimately derived from counterparts with internal possession, like (3). The notion of derivation, however, was understood in a new way. Instead of relating internal and external possession sentences via a movement rule applying to a representation of constituent structure, relational grammarians proposed a rule that applied directly to an abstract level of grammatical relations. These relations were understood as primitive elements, independent of particular phrase-structural realizations. External possession is produced by a rule of *possessor ascension* that alters the possessor's relational status, providing it with a grammatical relation to the verb.

The essence of the RG analysis can be appreciated via Aissen's (1987) study of external possession in Tzotzil. The phenomenon is exemplified by (6); note that the first-person possessor of the object is encoded by first-person verbal agreement, as though it were a verbal argument.

- (6) Ch-i-s-toyilan-be                    j-jol.  
 ASP-1ABS-3ERG-keep.lifting-IO 1GEN-head  
 'He kept lifting my head.'

The analysis begins with an underlying representation in which the possessor is in no way a verbal dependent. 'My head' is direct object at the most basic level; 'he' is subject; the possessor receives no grammatical relation from the verb. A rule of possessor ascension applies, altering the assignment of grammatical relations. 'My' becomes the indirect object; the direct object is now merely 'head'. Finally, an independent rule of Tzotzil grammar applies, promoting to direct object the indirect object that has been created by possessor ascension. This rule is associated with the appearance of the verbal suffix *-be*. The previous direct object assumes the special status of *chômeur*, characteristic of nominals that have lost a grammatical relation in the course of a derivation. Schematically:

(7)

	<i>keep lifting</i>	<i>head</i>	<i>my</i>	<i>he</i>
Level 1	Verb	Direct object		Subject
Level 2	Verb	Direct object	Indirect object	Subject
Level 3	Verb	Chômeur	Direct object	Subject

Possessor ascension takes place here between levels 1 and 2.

These analyses come with predictions for the semantics of external possession. On both the transformational and relational approaches, internal and external possession are expected to be semantically equivalent; this follows in each framework from the fact that the two sentence types are related by a syntactic rule. For Tzotzil, Aissen (1979) argues that this expectation is correct. The semantic constraints on external possession are those imposed on internal possession, rather than those imposed on underlying indirect objects (even though this latter group shares surface syntactic behaviors with external possessors). Underlying indirect objects are interpreted as benefactives and required to be animate. External possessors, however, may be inanimate, just as internal possessors may be. External possession in the key examples, like (8), is diagnosed primarily through the appearance of the suffix *-be*. The external possessor here is *li kaxlan vaj* 'the bread'.

- (8) Bu ma ch-a-ta-be s-tojol li kaxlan vaj?  
 where PARTICLE ASP-2ERG-find-IO 3GEN-price the bread  
*Literally:* 'Where in the world do you find the bread's money?'  
*More colloquially:* 'the money for the bread'

Munro (1984) provides arguments to the same effect for Choctaw external possession, analyzed as possessor ascension by Davies (1986). Certain Choctaw verbs allow external possession constructions but not benefactive constructions, and vice versa, suggesting that external possessors are not underlyingly benefactive arguments. Most tellingly, Munro shows that certain possessive constructions that are interpreted idiomatically retain their idiomatic interpretation under external possession. Compare the (a) and (b) examples in (9) and (10), which differ in whether possessum or possessor bears non-subject (NS) case marking.

- (9) Choctaw
- a. [Naahollo i-tobi-ya] apa-li-tok.  
 Anglo III-bean-NS eat-1SI-PT  
 'I ate the green peas.'
- b. [Naahollo-ya] [tobi] im-apa-li-tok.  
 Anglo-NS bean III-eat-1SI-PT  
 'I ate the green peas.'
- (10) Choctaw
- a. [Tali i-hina-ya] ayska-li-tok.  
 rock III-road-NS fix-1SI-PT  
 'I fixed the railroad track.'
- b. [Tali-ya] [hina] im-ayska-li-tok.  
 rock-NS road III-fix-1SI-PT  
 'I fixed the railroad track'

The expression *naahollo i-tobi* 'Anglo's bean' is interpreted idiomatically to mean 'green peas'. That idiomatic interpretation is present under both internal possession (9a) and external possession (9b). The same goes for *tali i-hina* 'rock's road' in (10); in both internal and external possession, the idiomatic meaning of 'railroad track' is permitted. As expected, internal and external possession behave the same way semantically. If idiomatic expressions must form underlying constituents, these facts make a clear case for the derivation of external possession from internal possession. Only in internal possession is the idiom a syntactic constituent, and thus the external possession structure must obtain its idiomatic reading via an underlying structure of internal possession.

## 2.2 Possessor government

The classic analysis continued into the Government and Binding (GB) literature most prominently in the work of Massam (1985) and Baker (1988). On these proposals, the key ingredient for an analysis of external possession lies in the theory of government: possessors behave as verbal arguments in external possession because they are governed by V. The analysis is stated in terms that do not reference grammatical functions directly, as on the transformational analysis. Yet in accounting for the relationship between the verb and the external possessor without invoking movement of the possessor phrase, this analysis carries over a central aspect of the relational approach.

On Massam's view, external possession may arise in an entirely base-generated structure. It is essentially an NP-internal version of ECM: the verb governs into its complement and assigns Case to that complement's specifier:

- (11) "NP/ECM": [VP V [NP NP<sub>possessor</sub> N' ]]  
 |-----Case-----↑

By contrast, on Baker's view, movement is typically involved in external possession, but it is not the possessor phrase that moves. What is key is movement of the possessum head noun – in particular, incorporation of this noun into V. Evidence for this proposal comes from Mohawk, Oneida, West Greenlandic, and Southern Tiwa, languages with noun incorporation. Incorporation of the possessum object may strand its possessor; the possessor then behaves as a verbal argument, controlling agreement. The Mohawk example in (12) is an example of internal possession, and the verb agrees in gender with the possessum (neuter). Example (13) is its counterpart with external possession. Note that the possessum is incorporated, and the verb and the possessor agree in gender (masculine).

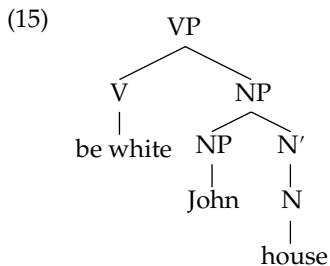
(12) Ka-rakv ne sawatis hrao-nuhs-a?  
 3N-white John 3M-house-SUF  
 'John's house is white.'

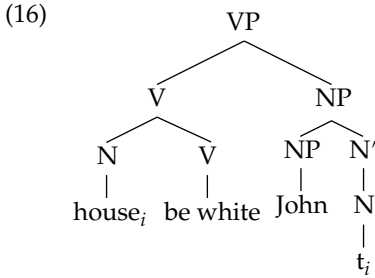
(13) Hrao-nuhs-rakv ne sawatis.  
 3M-house-white John  
 'John's house is white.'

The verb may agree with the object possessor in Mohawk only if the possessum incorporates. This leads Baker to propose that the verb does not automatically govern the possessor position inside its complement NP; it governs this position only upon incorporation of the possessum noun. The relationship between incorporation and government is expressed by the Government Transparency Corollary (Baker 1988, 64):

(14) *The Government Transparency Corollary*  
 A lexical category which has an item incorporated into it governs everything which the incorporated item governed in its original structural position.

Internal possession examples like (12) are given a structure as in (15). The possessor is governed by the possessum noun 'house', rather than by the verb. Once incorporation takes place, as in example (13), structure (16) is produced. Given the Government Transparency Corollary, V now governs the possessor position inside NP. This accounts for the behavior of the possessor as a verbal dependent.





For languages like Chamorro, Chichewa, Kinyarwanda, Choctaw, and Chickasaw, which show external possession without noun incorporation, Baker proposes a similar but more abstract process of *N-reanalysis*. Once the possessum N is reanalyzed with V, the verb governs the possessor position, and the telltale properties of verbal dependency for the external possessor can be accounted for. Reanalysis is thus essentially an abstract counterpart of possessum incorporation.

Baker observes that this approach predicts a key constraint on external possession constructions: external possession should only be possible where it is possible for the possessum noun to incorporate, overtly or covertly, into V. The possibility of incorporation is in turn constrained by the ECP, he proposes, with the result that only underlying objects may incorporate. This explains why external possession is only possible from objects in Chamorro and Chichewa. It also means that the intransitive subject in Mohawk (13) must be treated as an underlying object in (16). In general, external possession is only expected to be possible from subjects if the verb is unaccusative.

### 3 Possessor datives, affectedness, and binding

The increasingly cross-linguistic scope of the classic analysis began to raise the prospect in the 1980s of an alternative approach to external possession in some well-known languages. The arguments that led to this conclusion are essentially semantic: external possession is not always equivalent in meaning to an internal possession counterpart. Syntacticians concluded that external possession would have to be base-generated, then, as a structure distinct from internal possession. The classic analysis could not be fully maintained.

#### 3.1 Possessor datives and possessor affectedness

Among the languages to which the classic analysis had been applied were European languages showing so-called *possessor dative* constructions, as in (17). These examples feature dative clitics interpreted as possessors but encoded syntactically as verbal dependents.

- (17) a. French  
 Je lui ai coupé les cheveux.  
 I 3SG.DAT have cut the hair  
 'I cut his hair.'

(Guéron 1985)



## b. Spanish

Le apuntaron el número de Seguro Social.  
 3SG.DAT write.down the number of social security  
 'They wrote down her Social Security number.'

(Kempchinsky 1992, 136)

## c. Hebrew

ha-kelev šaxav li 'alha-mita.  
 the-dog lay 1.SG.DAT on the-bed  
 'The dog lay on my bed.'

(Borer and Grodzinsky 1986)

On the classic analysis, possessor dative constructions like (17a) would be derived by a syntactic rule from an internal possession structure along the lines of (18) (Langacker 1968):

## (18) French

J'ai coupé ses cheveux.  
 I.have cut his hair

But that approach left unexplained a crucial semantic difference between the possessor dative construction and its internal possession counterpart – a difference recognized in French linguistics for quite a long time (Bally 1926; Hatcher 1944). In the GB literature, the difference was expressed in terms of the theta theory: in the possessor dative construction, the referent of the dative receives an additional theta-role beyond the role of possessor. This role was typically identified as *benefactive* or *affectee*, the intuition being that the possessor must be affected for the external possession construction to be semantically appropriate. Several related types of facts were assembled to support this characterization.

First, in order to be affected in the relevant sense, the possessor in a possessor dative construction must meet certain criteria. It must be construed as a living, animate being. Where such a construal is not possible, the possessor dative construction is rejected in French:

- (19) \*Elle lui a cassé le pied, à cette table.  
 She 3SG.DAT has broken the foot to this table  
 'She broke the table's leg.'

(Barnes 1985, 168)

The same holds in Spanish in cases where the possessum does not stand in a part-whole relationship with the possessor (Cuervo 2003). In these cases, the possessor dative construction is rejected when the possessor is dead or inanimate:

- (20) \*Le redacté el cuento a Cervantes.  
 3SG.DAT edited the story to Cervantes  
 'I edited Cervantes' story.'

(Kempchinsky 1992, 136)

- (21) \*Valeria le miró los números a la pantalla.  
 Valeria 3SG.DAT looked.at the numbers to the screen  
 'Valeria looked at the screen's numbers.'

(Cuervo 2003, 78)

This pattern holds as well in German (Florian Schäfer, p.c.), and similar effects are reported for Hebrew (Berman 1981).

Second, the semantic relationship of possession must be one that ensures that an action on the possessum will affect the possessor, typically physically (Barnes 1985, 170). Possessor dative constructions are possible in French primarily when the possessum is a body part of the possessor. In this circumstance, an action on the possessum can scarcely leave the possessor unaffected.

- (22) Je lui ai lavé le bras/ \*le fils/ \*la voiture.  
 I 3SG.DAT have washed the arm/ \*the son/ \*the car.  
 'I washed his arm/\*son/\*car.'

Berman (1981) reports a looser version of this effect in reference to Hebrew examples like (23): the example is acceptable only if the child is wearing the sweater at the time the mother buttons it, and thus is physically affected by that action.

- (23) 'íma kiftera le-dáni 'et ha-svéder.  
 Mom buttoned to-Danny ACC the-sweater  
 'Mom buttoned Danny's sweater.'

A yet more generalized version of the effect is reported for Spanish by Tuggy (1980). Example (24), he reports,

is appropriate when the possessor is wearing the shoes (in which case he is almost certain to be affected by their being stepped on) and also in any other situation in which he is viewed as affected. For instance, in recounting a list of atrocities which A has committed against B, it would be quite apropos to include [(24)] even if B's shoes were in the closet when A stepped on them. (Tuggy 1980)

- (24) Le pisó los zapatos.  
 3SG.DAT stepped.on the shoes  
 'He stepped on his (another's) shoes.'

The French version of this constraint on semantic relationships of possession led to possessor dative constructions being described under the heading of "inalienable possession" (Kayne 1975; Guéron 1985; Cheng and Ritter 1987; Yoon 1990; Vergnaud and Zubizarreta 1992). Variation concerning the permissible semantic possession relationships for external possession is therefore sometimes described in terms of variation in which relationships are considered inalienable (Bally 1926; Chappell and McGregor 1996).

Finally, the verb is subject to certain constraints. In French, the verb of a possessor dative construction must describe an action; it cannot describe a state (Barnes 1985,

169; Guéron 2006, 600). Kayne (1975) influentially connected these facts to possessor affectedness, reasoning that the stative predicates do not describe eventualities with sufficient impact on the possessor.

(25) \*Je lui ai vu le bras.  
I 3SG.DAT have seen the arm

(26) \*Tu lui aime les jambes.  
you 3SG.DAT love the legs

For Spanish, Tuggy (1980) observes a more fluid effect. Possessor datives are possible with stative experiencer predicates like 'see' to the extent that the seeing has an important effect on the possessor of the seen object. While (27) is degraded, he reports, a dishonest bookkeeper might felicitously use (28) to describe an audit.

(27) \*Le vi al hijo.  
3SG.DAT saw the son  
'I saw his son.'

(28) Me vieron los libros.  
1SG.DAT saw the books  
'They saw my books.'

### 3.2 From affectedness to binding

The affectedness facts tightly constrained the analyses of possessor dative constructions that were possible within GB. The constraints on possessors, possessive relationships, and verbs hold *only* in the possessor dative construction, suggesting that the affectee role is assigned to the possessor not by the possessum noun, but by the verb. In an example like (23), then, the DP *Dani* must occupy a possessum-external position in which the affectee theta-role is assigned. It would not be possible for the DP to obtain this position by movement from the possessor position, as any such movement would violate a central GB tenet:

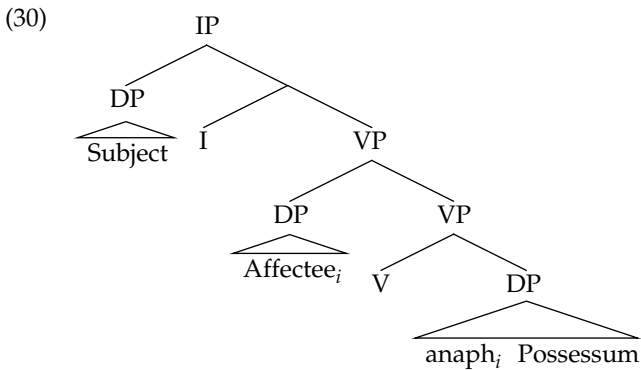
(29) *The Theta Criterion*  
Each argument bears one and only one  $\theta$ -role, and each  $\theta$ -role is assigned to one and only one argument.

(Chomsky 1981, 36)

If Danny (the individual) is understood both as possessor and as affectee, then two separate, co-referential arguments must be present in the structure to receive the possessor and the affectee roles. Abandoning the classic analysis for these cases, the standard GB approach therefore treated the possessor dative construction as an instance of base-generated anaphoric binding.

This analysis is presented in schematic form in (30). The dative argument is base-generated in the verbal spine and assigned the theta-role of affectee. It is obligatorily

coindexed with an anaphoric element inside the possessum nominal, which is responsible for the possessor interpretation.



In the GB literature, the crucial anaphoric element is identified variously as a PRO determiner (Guéron 1985; Borer and Grodzinsky 1986), a null operator (Tellier 1991), *pro* (Authier 1991), an unsaturated argument variable (Yoon 1990; Vergnaud and Zubizarreta 1992), or a base-generated NP trace (Kempchinsky 1992). Later approaches carry over these essential ideas, translating the analysis into HPSG (Koenig 1999), Mapping Theory (Gerdtts 1999), and a neo-Davidsonian event semantics (Hole 2005) with the help of a variety of anaphoric devices.

The binding analysis in its various forms drew support from constraints that apply both to possessor dative constructions and to other instances of obligatory anaphoric binding. The possessum must be c-commanded by the possessor dative, Guéron (1985) and Borer and Grodzinsky (1986) observed, just as other anaphoric expressions must be c-commanded by their binders. Borer and Grodzinsky pointed out that if the c-command restriction held at D-structure, it provides an explanation for why Hebrew allows possessor datives with unaccusative and passive verbs.

(31) ha-maftexot nafli li.  
 the-keys fell 1SG.DAT  
 'My keys fell.'

(32) ha-'uga ne'exla li.  
 the-cake was.eaten 1SG.DAT  
 'My cake was eaten.'

A dative can be construed as a possessor with an unergative verb, by contrast, only when VP internal material is added.

(33) Hebrew

a. ha-yalda yašva li \*(‘al ha-kise).  
 the-girl sat 1SG.DAT \*(on the-chair)  
 'The girl sat on my chair.'

b. ha-po'alim 'avdu li \*(ba-xacer).  
 the-workers worked 1SG.DAT \*(in-the.yard)  
 'The workers worked in my yard.'

The contrast follows if subjects of unergatives, but not unaccusatives and passives, are base-generated in a position higher than that of affectee datives. An anaphoric possessor internal to an unergative subject is too high for the dative to bind it.

Locality effects like those familiar from anaphora were also observed in the possessor dative construction. The possessor dative must be within the same minimal clause as the possessum (Steriade 1981; Guéron 1985, 48), at least modulo restructuring (Kayne 1975; Lee-Schoenfeld 2006):

(34) French

- a. Jean semble lui avoir lavé les cheveux.  
 Jean seems 3SG.DAT to.have washed the hair  
 'Jean seems to have washed his hair.'
- b. \*Jean lui semble avoir lavé les cheveux.  
 Jean 3SG.DAT seems to.have washed the hair  
 Intended: 'Jean seems to have washed his hair.'

This, too, follows from the binding analysis, on the assumption that an anaphoric possessor requires binding within a local domain.

## 4 Between movement and possessor affectedness

### 4.1 The Theta Criterion and the typology of external possession

The abandonment of the classic analysis for the possessor dative construction raised important questions about the cross-linguistic typology of external possession. Was the classic analysis indeed correct for Malagasy, Tzotzil, Choctaw, and Mohawk, or should those languages be reanalyzed in terms of binding? Affectedness conditions on external possession are extremely common cross-linguistically (see e.g. Shibatani 1994; Haspelmath 1999; Payne and Barshi 1999; O'Connor 2007). Would it be possible, then, for the binding analysis to replace the classic analysis in its entirety?

In theories adopting the Theta Criterion, as in (29), the choice between the binding analysis and the classic analysis for a particular language could be equally well approached from either of two angles. First, one might look for evidence of movement of the possessor phrase from a DP-internal position to a position in the clausal spine. Second, one might look for evidence of an additional theta-role to the possessor in the external possession construction. The two factors are correlated by (29), predicting only three of four potential language types:

(35) *The GB Typology of External Possession*

		Does the possessor phrase move?	
		Yes	No
Does the possessor receive an additional theta-role?	Yes	–	Binding analysis
	No	Classic analysis (raising)	Classic analysis (government)

If the possessor moves out of the possessum DP and into the clause, then by (29), it must land in a position to which no new theta-role is assigned. The classic analysis is appropriate, in a variant involving raising. If the possessor receives an additional theta-role in the external possession construction, then, by (29), it must occupy a position in the clausal spine to which it could not have moved. The binding analysis is appropriate. If the possessor does not move and does not receive a new theta-role, but nevertheless behaves as a syntactic dependent of the verb, a variant of the classic analysis involving government is appropriate. But there is no fourth option in a theory adopting (29).

In view of the frequent appearance of affectedness conditions in external possession, this line of reasoning led to the extension of the binding analysis to a diverse set of languages. Well beyond European possessor dative constructions, a binding analysis was proposed for “adversative passives” like Mandarin (36) and Japanese (37), which feature affectedness conditions on the possessor (Cheng and Ritter 1987; Huang 1999).

- (36) a. Zhangsan bei tufei dasi-le baba.  
 Zhangsan BEI bandits kill-PERF father  
 ‘Zhangsan had his father killed by bandits.’  
 (Huang 1999, ex. 114)

- b. Ta ba juzi bo-le pi.  
 he BA orange peel-ASP skin  
 ‘He peeled the skin from the orange.’  
 (Cheng and Ritter 1987, 66)

- (37) John-ga Mary-ni kodomo-o sikar-are-ta.  
 John-NOM Mary-DAT child-ACC scold-PASS-PAST  
 ‘John had his child scolded by Mary.’  
 (Huang 1999, ex. 116)

On the other hand, this typology raised questions of enormous difficulty for languages that, in spite of evidence for possessor affectedness, nevertheless show evidence of possessor movement. The conflict between these factors set the stage for two important papers in the 1990s that grappled with the choice between the classical approach and the binding alternative. Keach and Rochemont (1994) and Landau (1999) each conclude, with the classic approach, that external possession must be derived syntactically from internal possession; both posit derivations involving possessor movement. Yet they also each observe that internal and external possession are not semantically equivalent. External possession imposes a semantic condition that internal possession does not impose, and this condition is naturally described as involving possessor affectedness.

## 4.2 Movement and affectedness in Swahili

Keach and Rochemont (1994) provide a possessor-raising analysis within GB theory for Swahili external possession constructions like (38). Numbers indicate

noun class; note that the possessor but not the possessum controls noun-class agreement on the verb.

- (38) Juma a-li-m-kata Asha kidole.  
 1.Juma 1-PST-1-cut 1.Asha 7.finger  
 'Juma cut Asha's finger.'

The underlying structure of (38) is equivalent, they propose, to that of the internal possession structure in (39). Here noun-class agreement may be controlled by the possessum, but not by the possessor.

- (39) Juma a-li-(ki-)ata kidole cha Asha.  
 1.Juma 1-PST-(7)-cut 7.finger 1-of 1.Asha  
 'Juma cut Asha's finger.'

Keach and Rochemont propose that Swahili objects receive Case and trigger agreement from a SpecVP position. In internal possession (39), the entire object *kidole cha Asha* 'Asha's finger' moves to SpecVP, but in external possession (38), only the possessor *Asha* does.

Because the external possession construction is not base-generated, it circumvents a restriction that otherwise limits the valence of Swahili verbs. While Swahili verbs may augment their valence through productive applicative and causative strategies, no base-generated structure may be tritransitive. It is impossible to add an applicative argument to a ditransitive, for instance, resulting in a structure with three postverbal arguments.

- (40) a. Asha a-li-m-pa Juma kitabu.  
 1.Asha 1-PST-1-give 1.Juma 7.book  
 'Asha gave Juma a book.'  
 b. \*Ali a-li-m-p-e-a Asha Juma kitabu.  
 1.Ali 1-PST-1-give-APPL 1.Asha 1.Juma 7.book  
 Intended: 'Ali gave [Juma] [a book] [for Asha].'

But seemingly tritransitive structures are possible in external possession:

- (41) ni-li-m-chan-i-a Juma watoto nywele.  
 I-PST-1-comb-APPL 1.Juma 2.children 9.hair  
 'I combed the children's hair for Juma.'

Keach and Rochemont take this contrast between external possession and applicative constructions to lend crucial support to the movement analysis.

Yet Keach and Rochemont also observe a series of constraints on external possession that suggests a semantic difference from internal possession. The findings make for a clear parallel to the argument for possessor affectedness in Romance possessor dative constructions. As in French, external possession

is not acceptable when the possessor is not physically affected, or when the verb is stative:

- (42) ni-li-m-vunja Juma mguu / \*kiti.  
 I-PST-1-break 1.Juma 3.leg / \*7.chair  
 'I broke Juma's leg / \*chair.'
- (43) Rosa a-li-nyang'any-wa shuka.  
 1.Rosa 1-PST-rip-PASSIVE 9.shuka  
 'Rosa had her shuka ripped off her.'
- (44) \*Juma a-li-mw-ona Asha miguu.  
 1.Juma 1-PST-1-see 1.Asha 4.legs  
 'Juma saw Asha's legs.'

Adopting (29), Keach and Rochemont (1994) are forced to leave as an open puzzle how such facts can be reconciled to their proposal for possessor movement.

### 4.3 Movement and affectedness in Hebrew

A similar puzzle faces Landau's (1999) account of the possessor dative construction in Hebrew. Like Keach and Rochemont (1994), Landau proposes that the possessor of a complement DP may leave the possessum and move to SpecVP; this movement is motivated by Case. The c-command and locality effects that had been marshalled in favor of the binding view are reinterpreted as following from constraints on movement.

The movement account provides a natural explanation for why certain verbs may take dative arguments only when a potential possessum argument is also present.

- (45) Gil axal le-Rina \*(et ha-sendvich).  
 Gil ate to-Rina \*(ACC the-sandwich)  
 'Gil ate Rina's sandwich.'

On the binding account (30), it follows immediately that the anaphoric possessor requires a c-commanding antecedent, the dative; but because binding is directional in nature, questions remain about why the dative should be possible only when a lower anaphor is also present. Various special mechanisms are required to handle this relationship: the dative and the anaphoric possessor must, for instance, jointly satisfy the Theta Criterion (Guéron 1985). Landau (1999) observes that the connection between the dative and the empty category is accounted for automatically, by contrast, if the empty category is a movement trace. The moved item and its trace stand in the expected mutually entailing relationship.

Additional evidence favoring movement over binding comes from distinctions among types of PPs embedding the possessum. Landau (1999) observes that the possessor dative construction is possible when the possessum is embedded in a locative (46), source, or instrumental (47) PP. It is not possible when the possessum is embedded in a PP expressing cause or benefit (48) or opposition (49).



- (46) Gil yašav le-Rina ba-mitbax.  
 Gil sat o-Rina in-the.kitchen  
 'Gil sat in Rina's kitchen.'
- (47) Gil hitkaleax le-Rina im ha-sabon.  
 Gil bathed to-Rina with the-soap  
 'Gil took a shower with Rina's soap.'
- (48) \*Gil pitpet le-Rina biglal/lema'an ha-hofa'a.  
 Gil chatted to-Rina because/for the-performance  
 'Gil chatted because of/for the benefit of Rina's performance.'
- (49) \*Gil azav le-Rina lamrot ha-'iyumim.  
 Gil left to-Rina despite the-threats  
 'Gil left despite Rina's threats.'

Landau (1999) proposes to bring this pattern under the rubric of island effects. Locative, source, and instrumental PPs are treated as argumental; these PPs are transparent for extraction. Real adjunct PPs are islands for movement, accounting for the ungrammaticality of (48) and (49). This pattern, too, remains difficult to explain on the binding analysis, Landau argues, but falls naturally in line in a theory postulating possessor movement.

What this line of reasoning leaves open is, again, how the semantic relationship between internal and external possession can be explained. Following previous work, Landau grants that the two constructions are not semantically equivalent (1999, 3); only external possession necessarily implies that the possessor is an affected party. Given (29), this fact is at odds with the diagnosis of movement. And thus a central premise of the GB and early minimalist frameworks rendered inexplicable a crucial aspect of the syntax–semantics interface in external possession.

## 5 The parallel to control and raising

The key idea that made it possible to break this impasse did not come from studies of external possession. In the late 1990s, Hornstein proposed a movement analysis of control structures like (50) (Hornstein 1999):

- (50) Robin wanted  $[_{TP} t \text{ to win}]$   
 ↑ Movement ↓

Such an analysis is incompatible with the Theta Criterion as in (29), and Hornstein accordingly proposed that this criterion be abandoned. That abandonment makes it possible for the theory to countenance movement between thematic positions. Control and raising can then in principle both be treated as movement, with the difference being whether this movement targets a thematic position (control) or an athematic one (raising).

The theoretical revision behind this proposal has an immediate consequence for the predicted typology of external possession. I want to propose that the new typology is the right one for a major external possession type (Type A). A fourth variety of language is now predicted possible:

(51) *A Typology of External Possession without the Theta Criterion (Type A Languages)*

	Does the possessor phrase move?		
	Yes	No	
Does the possessor receive an additional theta-role?	Yes	Hybrid analysis: movement to a theta-position	Binding analysis
	No	Possessor raising analysis	Possessor government analysis

The newly recognized ‘hybrid’ language type is precisely one in which possessors both move syntactically and are interpreted semantically with additional theta-roles in external possession. Analyses of this type have been explored over the last decade for several languages (Lee-Schoenfeld 2006; Rodrigues 2010).

Before we review these analyses, a word is in order on the logical connection between hybrid analyses of external possession and the movement analysis of control, (50). These analyses each depend crucially on a rejection of (29), the GB Theta Criterion. But the approach to external possession as movement between thematic positions and the parallel approach to control infinitivals do not logically depend on one another. Any theory recognizing movement between thematic positions must tightly constrain the circumstances under which it is possible. In principle, it could be that such movement is not possible in the case of control infinitivals like (50), but is possible in the case of external possession.

It is nevertheless instructive to make a connection between external possession constructions and varieties of infinitival embedding for typological purposes. One might, on a theory adopting (50), set up a typology similar to (51) to describe the possible cross-clausal dependencies for a DP originating in an infinitival clause:

(52) *Types of Dependencies into Infinitival TPs*

		Does the DP move?	
		Yes	No
Does the DP’s referent receive an additional theta-role?	Yes	Control <i>John wanted to win.</i>	Base-generated binding <i>John expected himself to win.</i>
	No	Raising <i>John seemed to win.</i>	ECM <i>John expected Sue to win.</i>

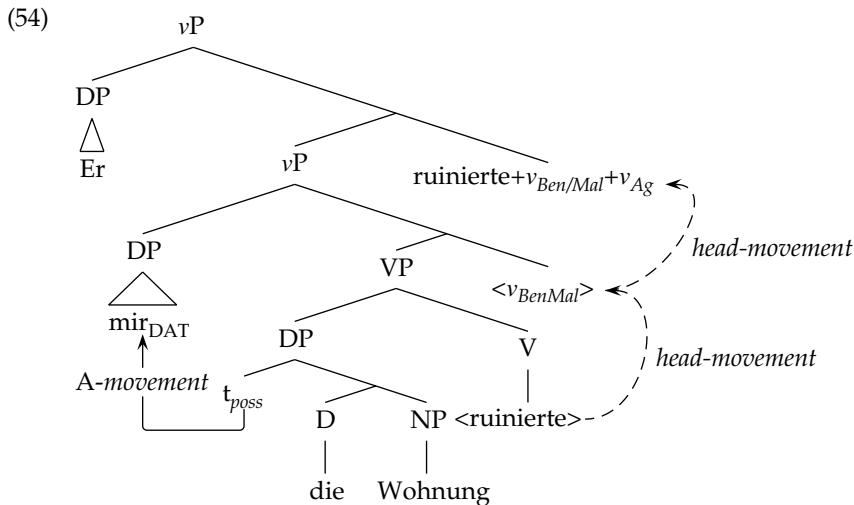
We now review the correlates of these dependency types in the realm of external possession.

### 5.1 External possession as control

An initial articulation of the view that external possession can be treated as movement between thematic positions is found in Lee-Schoenfeld's (2006) study of German possessor dative constructions like (53).

- (53) Er ruinierte mir die Wohnung.  
 he ruined me.DAT the place  
 'He ruined my place.'

Like its counterpart in Hebrew, the German construction has been analyzed both on the classic analysis (Gallmann 1992) and on the binding analysis (Hole 2004). The hybrid analysis combines ingredients from both antecedents. The same syntactic effects that led Landau (1999) to posit movement for the Hebrew possessor dative construction can be reproduced in German; this suggests that the possessor phrase indeed moves out of its original DP-internal position. The same semantic effects that led Berman (1981) to a diagnosis of possessor affectedness in Hebrew can be called up in German as well; this means that possessor movement must target a thematic position. Lee-Schoenfeld (2006) identifies the landing site as the specifier of a head  $v_{Ben/Mal}$  that assigns the affectee role and the dative case.



In treating the landing site of movement as a thematic position, this analysis accounts for the puzzle facing Keach and Rochemont's (1994) and Landau's (1999) earlier movement approaches. Movement of the possessor phrase no longer implies synonymy between internal and external possession.

The same style of analysis is extended by Rodrigues (2010) to cases of external possession in Brazilian Portuguese, as in (55). Note that the subject is interpreted as the possessor of the object.

- (55) O João encontrou o irmão no supermercado.  
 the João met the brother in.the supermarket  
 'João<sub>1</sub> met his<sub>1/\*2</sub> brother in the supermarket.'

Rodrigues (2010) observes that the relationship between the subject/possessor and the possessum shows island effects indicative of movement. The two may not be separated by a relative clause boundary, for instance.

- (56) \*A Maria<sub>1</sub> viu a menina que beijou [o namorado e<sub>1</sub>].  
 the Maria saw the girl that kissed the boyfriend  
*Intended:* 'Maria<sub>1</sub> saw the girl that kissed her<sub>1</sub> boyfriend.'

Nor may the possessum be coordinated with another DP that does not receive an anaphoric possessor interpretation; this recalls the coordinate structure constraint.

- (57) \*O Pedro<sub>1</sub> encontrou [a irmã de João] e [a mãe e<sub>1</sub>].  
 the Pedro met the sister of.the João and the mother  
*Intended:* 'Pedro<sub>1</sub> met João's sister and his<sub>1</sub> mother.'

Such coordination is possible only when both possessa are interpreted as possessed by the subject, recalling across-the-board movement.

- (58) O Pedro<sub>1</sub> encontrou [a irmã e<sub>1</sub>] e [a mãe e<sub>1</sub>].  
 the Pedro met the sister and the mother  
 'Pedro<sub>1</sub> met his<sub>1</sub> sister and his<sub>1</sub> mother.'

Bringing these indications of movement together with the thematic content assigned to the possessors *qua* subjects, Rodrigues (2010) proposes that possessor phrases initially receive the possessor role inside the possessum DP, and subsequently move to a thematic position in *v*P. This is the position in which an external thematic role is assigned in (55). Thus, the hybrid analysis of external possession is extended beyond cases in which the possessor is assigned the particular thematic role of affectee.

## 5.2 External possession as base-generated binding

In proposing hybrid analyses for external possession, Lee-Schoenfeld (2006) and Rodrigues (2010) each find cause to recognize alternative constructions that should indeed be analyzed in terms of base-generated binding. Lee-Schoenfeld proposes a base-generation analysis for examples like (59), where a possessive pronoun appears inside the possessum DP. The dative phrase, she proposes, is an ethical dative base-generated in VP and coindexed with a pronoun that is syntactically independent of it.

- (59) German  
 Mein Bruder hat der Mami<sub>1</sub> leider [ihr<sub>1</sub> Auto] zu  
 my brother has the mom.DAT unfortunately her car to  
 Schrott gefahren.  
 scrap driven  
 'Unfortunately my brother totaled mom's car.'

This is distinguished from the possessor dative construction proper, where a trace, not an independent pronoun, occupies the possessor position.

- (60) Mein Bruder hat der Mami<sub>1</sub> [*t*<sub>1</sub> das Auto] zu Schrott gefahren.  
 my brother has the mom.DAT the car to scrap driven  
 'My brother totaled mom's car.'

Rodrigues (2010) extends a similar analysis to the distinction between examples like those in (61). Movement to a thematic position is involved in (61b), but (61a) involves base-generated binding.

- (61) a. A Maria<sub>1</sub> cortou [as unhas dela<sub>1</sub>].  
 the Maria cut the nails of.her  
 'Maria<sub>1</sub> cut her<sub>1</sub> nails.'  
 b. A Maria<sub>1</sub> cortou [as unhas *t*<sub>1</sub>].  
 the Maria cut the nails *t*  
 'Maria<sub>1</sub> cut her<sub>1</sub> nails.'

Rodrigues (2010) shows that island effects and other characteristics of movement do not apply to the dependency in (61a). This is simply a case where a subject happens to be coreferential with a syntactically independent possessor pronoun.

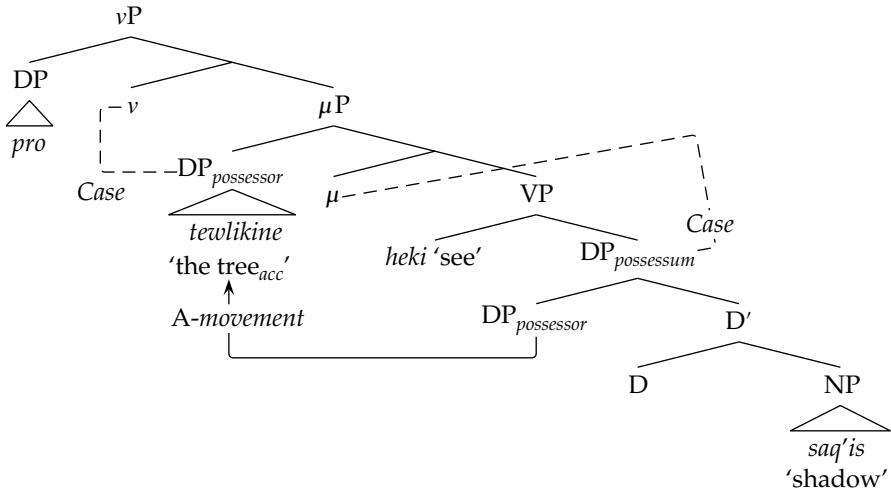
### 5.3 External possession as raising

Lee-Schoenfeld's (2006) and Rodrigues' (2010) studies fill in two of the three expected cells of the typology in (51). One of the remaining cells should be filled by a language that arrives at external possession syntactically through possessor movement, but does not connect this movement to a new thematic role for the possessor. This is the type of analysis that Deal (2013) pursues for Nez Perce constructions like (62).

- (62) *pro* 'e-ex-ney'-se- $\emptyset$  tewliki-ne saq'is.  
*pro* 3OBJ-see- $\mu$ -IPFV-PRES tree-ACC shadow.NOM  
 'I see the tree's shadow.'

Lacking a source for Case DP-internally, the possessor phrase moves from a DP-internal position to the specifier of a Case-assigning head  $\mu$ . In this position, the possessor can receive Case from  $v$  while the possessum receives Case from  $\mu$ . The  $\mu$  head itself is realized as a suffix on the verb.

(63)



The involvement of movement in Nez Perce external possession is supported by locality effects of a familiar type. In a ditransitive construction, where the goal is generated higher than the theme, the possessor may be raised from within the goal DP. It may not be raised from within the theme DP, however.

- (64) 'aayat-om hi-kiwyek-ey'-se- $\emptyset$  'iin-e picpic cuu'yem.  
 woman-ERG 3SBJ-feed- $\mu$ -IPFV-PRES 1SG-ACC cat.NOM fish.NOM  
 a. 'The woman fed my cat the fish.'  
 b. \*'The woman fed a/the cat my fish.'

This effect may be understood in terms of intervention – a factor that routinely shows its face in movement, but not in binding. On parse (64b), the goal DP intervenes in movement of the theme possessor DP to  $\mu$ .

The proposed Nez Perce structure (63) differs from its counterpart in German, (68), in the nature of the head to which the possessor phrase raises. Deal argues that the head involved in Nez Perce external possession assigns the possessor no new theta-role. The major factors that allow possessor affectedness to be diagnosed in languages like German are notably absent in Nez Perce. The possessor need not be animate, as (62) shows, and the possessive relationship need not be inalienable, as (64) shows. The verb need not be eventive, as (62) shows as well. Also striking is that external possession is generally obligatory in Nez Perce, regardless of the possibility of possessor involvement. Even when the possessor is long deceased, the external possession structure must be used.

- (65) a. Weet *pro* 'e-cukwe-ney'-se- $\emptyset$  Luk-ne<sub>i</sub> [<sub><DP<sub>possessor</sub><sub>i</sub>></sub> tiim'es]?  
 Y.N *pro* 3OBJ-know- $\mu$ -IPFV-PRES Luke-ACC [ book.NOM]  
 'Do you know Luke's book (a.k.a. the Gospel of Luke)?'  
 b. \*Weet *pro* 'e-cukwe-ce- $\emptyset$  [Luk-nim tiim'es-ne]?  
 Y.N *pro* 3OBJ-know-IPFV-PRES [Luke-GEN book-ACC]

The absence of an alternation between internal and external possession further suggests that there is no optional semantic content conveyed by the choice of the external possession structure in particular.

## 5.4 External possession as ECM

The final cell in the typology in (51) should be filled by a language where external possession brings neither possessor movement nor possessor affectedness. The possessor's sole semantic dependency is on the possessum; its syntactic dependency on the verbal structure is encoded *in situ*, by a mechanism like government or Agree.

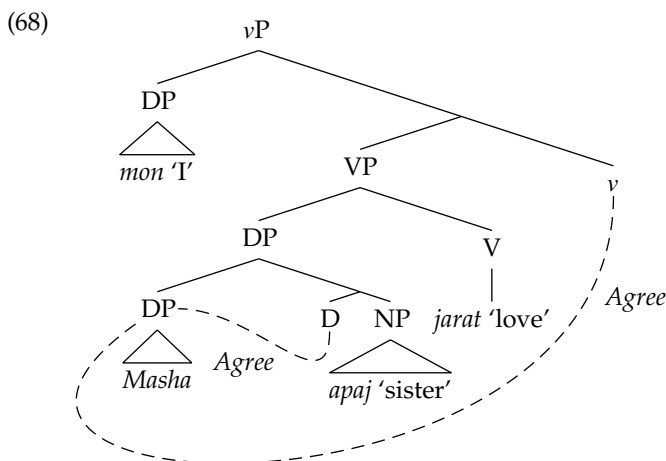
This type of analysis has been proposed by Assmann et al. (2014) for Udmurt possessive constructions like (66), where the possessor is marked with the ablative case.

- (66) Mon Masha-leš apaj-z-e jarat-is'ko.  
 1SG Masha-ABL sister-3SG-ACC love-PRES.1SG  
 'I love Masha's sister.'

The ablative possessor of this example is notable because the typical possessor case in Udmurt is genitive. Ablative appears for all and only possessors of accusatives; possessors of DPs receiving other cases are always genitive, as in the nominative example (67).

- (67) Masha-len apaj-ez Petyr-ez jarat-e.  
 Masha-GEN sister-3SG Peter-ACC love-PRES.3SG  
 'Masha's sister loves Peter.'

Assmann et al. (2014) argue that the difference in possessor case across examples like (66) and (67) does not result from a difference in the syntactic position of genitive and ablative possessors. Both remain *in situ* in SpecDP. Instead, they propose that the ablative of (66) results from the possessor's agreement with two distinct heads. On one hand, the possessor in Udmurt always agrees with D, which is responsible for assigning abstract genitive Case. On the other hand, the possessor of an object agrees with *v*, which is responsible for assigning abstract accusative Case. In an example like (66), these two abstract Cases stack on the possessor. Thus Udmurt manifests underlyingly a version of the case-stacking phenomenon seen overtly in languages like Lardil (Richards 2013). This analysis takes the syntax of (66) to be as in (68).



This analysis is akin to ECM in that a DP in the specifier of *V*'s complement agrees with *v*.

Curiously, Agree between the possessor and *v* in Udmurt does not have the result that the object possessor takes on standard object behaviors. Udmurt objects, agreeing with *v*, are typically marked in the accusative case. The object possessor appears in the ablative rather than the accusative, Assmann et al. propose, as a morphological consequence of the stacking of abstract Cases. Unlike Lardil, Udmurt does not allow the two Case features assigned to the possessor to be realized in two separate morphemes. Instead, it uses the ablative morphological case to realize the combined set of basic ingredients to genitive and accusative Case. The Assmann et al. (2014) proposal thus takes possessor case in Udmurt to result from a combination of Agree operations and morphological realization rules.

This proposal accounts for the fact that ablative is obligatory for object possessors in Udmurt, just as accusative is obligatory for object possessors in Nez Perce.

- (69) a. so-leš eš-s-e ažži-ško.  
 he-ABL friend-3SG-ACC see-PRES.1SG  
 'I see his friend.'  
 b. \*so-len eš-s-e ažži-ško.  
 he-GEN friend-3SG-ACC see-PRES.1SG

Possessor case is not connected to a semantic distinction, but rather arises in virtue of the basic mechanics of Agree (in Udmurt) and movement (in Nez Perce).

### 5.5 Type A external possession: parametric implications

These studies suggest three major parameters at the core of Type A external possession.

The first (as foreseen by Ura 1996) has to do with whether it is possible for a possessor to be generated in DP without receiving its final Case value there. If possessors invariably receive Case inside the possessum DP, as they plausibly do in English, external possession will be possible only via base-generated binding. This requires no special syntax; it arises when an independent DP happens to bind a pronominal in possessor position.

- (70) Beth<sub>1</sub> asked me if I would take a look at her<sub>1</sub> car.

If, on the other hand, a language allows possessors to avoid DP-internal Case assignment, that opens the door to additional types of external possession. Further parametrization depends on the properties of DP-external heads that may assign Case to possessors.

The second parameter concerns whether local DP-external heads may assign Case to possessors in situ, without requiring them to move. This can be described in terms of whether these heads necessarily bear a feature [EPP]. If the local Case assigner bears no EPP feature, an ECM analysis can be expected: the Case assigner

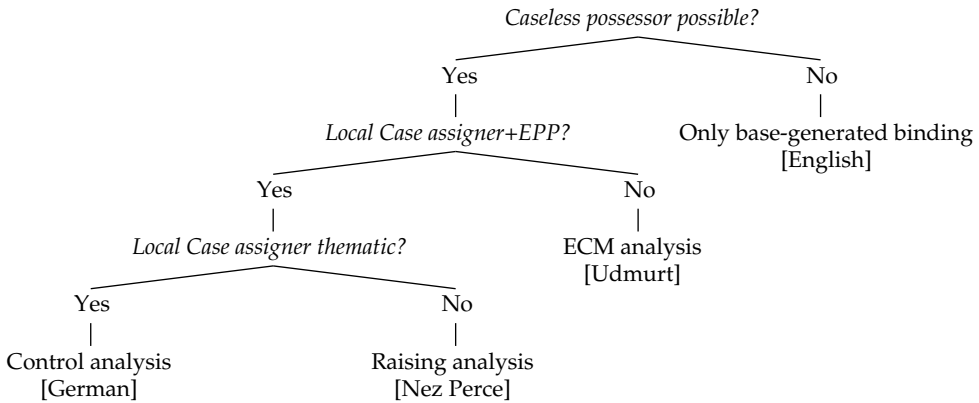


provides Case to the possessor in its base position via Agree. That is a major piece of the analysis just reviewed for Udmurt. If the local Case assigner bears [EPP], in contrast, the possessor will have to move outside DP.

The final parameter depends on the semantics of the head responsible for possessor Case and possessor movement. If this head has a theta-role, the possessor moves into a thematic position. This is the analysis just reviewed for German. If, finally, the head is athematic, serving a strictly syntactic function, possessor movement is akin to raising. This is the analysis just reviewed for Nez Perce.

The implications among these parameters make it possible to arrange them into the type of logical structure that Baker (2001), Roberts and Holmberg (2010), and Sheehan (2014) have called a *parameter hierarchy*:

(71) *Three Points of Variation in External Possession*



It is worth pointing out that this typology raises a difficult question concerning the level of parametrization. Individual languages typically have a mixture of control, raising, and ECM. Why should it be that individual languages do not typically have a mixture of control-, raising- and ECM-like external possession?

## 6 Pushing on the A/ $\bar{A}$ distinction

### 6.1 An additional type of external possession

There are several reasons to think that the typology in (51) does not exhaust the variety of external possession. To wit:

*Subject requirements.* Raising, control, and ECM are found in infinitivals in complement position; infinitivals in subject position do not allow their subjects to depend on the embedding clause for Case. Yet external possession constructions in some languages are not only possible for subject possessa, but also *restricted* to subject possessa. Consider the multiple nominative construction in Japanese. Both the possessor and the possessum are marked with the nominative case in (72).

- (72) a. John-ga musuko-ga (butai-de) odot-ta.  
 John-NOM son-NOM stage-at dance-PAST  
 'John's son danced at the stage.'  
 (Ura 1996)
- b. John-ga musuko-ga hito-o korosi-ta.  
 John-NOM son-NOM person-ACC kill-PAST  
 'John's son killed a man.'  
 (Ura 1996)

This type of external possession is possible only for nominative possessa. Japanese allows no multiple accusative constructions, for instance, when the possessum is in object position.

- (73) \*John-ga Mary-o atama-o nagut-ta.  
 John-NOM Mary-ACC head-ACC hit-PAST  
 'John hit Mary's head.'  
 (Ura 1996)

If external possession as in (72) arises via possessor movement, as Kuno (1973) and Ura (1996) propose, that movement must be distinguished from the types of movements that connect infinitival arguments to embedding clauses. The same can be said for external possession in other languages showing subject requirements, for example Cebuano (Bell 1983), Tz'utujil (Aissen 1999), Chickasaw (Munro 1999), Nuuchah-nulth (Ravinski 2007), and certain dialects of Flemish (Haegeman and Danckaert 2013).

*Iterativity.* Raising, control, and ECM are limited by the distribution of Case. In raising, for instance, only one argument may raise to the embedding clause; there would not be a source for Case there for any others. But external possession is not always limited in a parallel way. More than one possessor may be external in a given sentence. Consider Chickasaw (74). Example (74a) shows internal possession; subject case marking appears only on 'leg'. In (74b), subject case marking appears on both 'leg' and 'table'; in (74c), it spreads to 'Jan' as well.

- (74) a. Jan im-aaimpa' iyy-at oppolo.  
 Jan 3III-table leg-SBJ broken  
 'Jan's table's leg is broken.'
- b. Jan im-aaimp-at iyy-at oppolo  
 Jan 3III-table-SBJ leg-SBJ broken
- c. Jan-at im-aaimp-at iyy-at oppolo  
 Jan-SBJ 3III-table-SBJ leg-SBJ broken

Munro (1999) reports that there is no upper limit on the number of possessors that may be external in Chickasaw. This makes for a pattern strikingly unlike what is found in infinitival dependencies.

*Discourse conditioning.* Raising, control, and ECM are driven by Case and thematic interpretation; but external possession in some languages is driven by factors of a

more information-structural flavor. In Japanese, for instance, multiple nominative constructions are well-known to exhibit subtle changes in focus structure vis-à-vis their internal possession counterparts. Kuno (1973) records the special interpretation of the external possessor with a feature [+exhaustive]. In internal possession, this feature accrues to the entire possessive DP; in external possession, it accrues to the possessor only.

- (75) [Kono class-no dansei-ga]<sup>[+exhaustive]</sup> yoku dekiru.  
 this class-GEN male-NOM well are.able  
 'It is the boys of this class that do well.'

(Kuno 1973, 72)

- (76) [Kono class-ga]<sup>[+exhaustive]</sup> [dansei-ga] yoku dekiru.  
 this class-NOM male-NOM well are.able  
 'It is this class that the boys do well in.'

(Kuno 1973, 73)

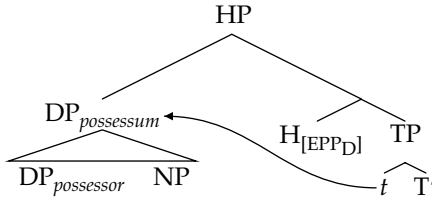
Similar types of effects are found in many languages. In Hungarian, possessors external to the possessum DP may act as foci or as *wh*-operators, as Szabolcsi (1984) has influentially discussed. For Cebuano, Bell (1983) reports a topicality condition on external possession. Munro (1999) reports for Chickasaw that the possessor must be more salient in the discourse than the possessum. For Tz'utujil and Malagasy, Aissen (1999) and Keenan and Ralalaoherivony (2001) report that the possessor must be construed as the subject of a categorical judgment or a stable, individual-level predicate – a further type of decidedly information-structural effect.

## 6.2 Type B external possession: toward an analysis

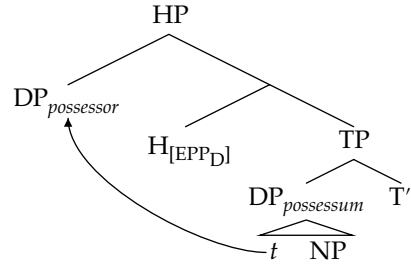
The repeated confluence of these factors in a number of unrelated languages points to an alternative major type of external possession construction. While many important aspects of this type remain to be worked out, one recurrent property that can be identified thus far is a combination of the ingredients to A- and  $\bar{A}$ -dependencies. That combination means that this second major type (Type B) is less readily assimilated to counterparts outside the possessive domain.

Consider the well-studied case of Japanese. Ura (1996) proposes that the possessor in a possessive multiple nominative construction moves out of the possessum DP driven by a need for Case. This proposal in turn suggests the existence of a head H, commanding the subject, which behaves as a trigger for movement. Such a head, in featural terms, would need to possess the feature [EPP<sub>D</sub>]; this would cause it to attract the closest accessible DP. The subject possessor and the subject itself are presumably equidistant from such a head, as one occupies the specifier of the other. We might suppose that either one may move to the specifier of H. The nominative case is assigned to the moving DP.

(77) a. Possessum DP moves (75)



b. Possessor DP moves (76)



The central puzzle of this type of external possession is the precise identity of H.

On one hand, H behaves as part of the A system; this explains its ability to assign Case. Whereas heads in the  $\bar{A}$  system typically attract operator features (e.g. focus features and *wh*-features) that need not be located on the highest DP in the clause, H and other heads in the A system are constrained to attract the closest DP, regardless of its particular featural profile. This property, recorded in the feature [EPP<sub>D</sub>], derives the fact that only subject possessors may interact with H; the subject intervenes in any potential dependency between H and the object possessor.

On the other hand, H behaves in striking respects like part of the  $\bar{A}$  system. It contributes semantic content of an information-structural flavor, first of all, and it is apparently located at the left periphery. The possibility of iterative external possession in languages like Chickasaw suggests the possibility of iteration of H heads. This recalls Rizzi's (1997) proposal for aspects of the extended CP domain. Notably, there does not seem to be any counterpart head lower in the clause, giving rise to an external possession construction that (i) targets only objects, (ii) allows for unlimited iteration, and (iii) gives rise to information-structural effects, rather than (say) implications of possessor affectedness.

## 7 Conclusion

The study of external possession has come a long way from its transformational beginnings. The empirical basis has expanded enormously; our ability to account for certain particular types of external possession in theoretical terms has also grown. These factors together make it possible to theorize about the typology of external possession in a way that would have been much less straightforward before.

Two major types of external possession constructions have emerged from this study, along with various subtypes:

- (78) Type A: external possession is akin to raising/control/binding/ECM
- (i) External possession is akin to raising: A-movement to an athematic position (Nez Perce)
  - (ii) External possession is akin to control: A-movement to a thematic position (German and Brazilian Portuguese)

- (iii) External possession is akin to binding: base-generated anaphora (English)
- (iv) External possession is akin to ECM: in-situ Agree with *v* (Udmurt)

Type B: external possession combines ingredients of A- and  $\bar{A}$ -dependencies (Japanese, Chickasaw, Tz'utujil, and Nuu-chah-nulth)

Constructions of Type A target possessives in verb complements, much as A-dependencies in infinitivals do. While each of the four expected Type A subtype analyses have been proposed for external possession in various languages, the number of languages proposed to have raising- and ECM-type external possession in particular remains very small. It remains to be seen whether substantially similar patterns may be discovered in external possession in other languages.

Constructions of Type B target subject possessives. The analysis of these cases poses unsolved theoretical puzzles that future work must explore.

Interesting empirical questions also remain open. External possession in Korean, for instance, has seen analyses that suggest the imposition of a possessor affectedness condition (Yoon 1990; Tomioka and Sim 2007), and thus a Type A approach, but also analyses that suggest a connection to focus structure (Kim 2000), and thus a Type B approach. Many languages that have received far less theoretical attention are ripe for renewed approaches that take both the syntax and the semantics of external possession into consideration. It is hoped that the new discoveries that will be made in this area will shed light not only on the syntax of possessive and clausal structures but also on important aspects of the syntax–semantics interface.

SEE ALSO: Accusative Plus Infinitive Constructions in English; Affectedness; Chinese *Ba*; Control Phenomena; Double Nominatives in Japanese; Inalienable Possession, Primarily in French; Noun Incorporation

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