

# Case and agreement in possessive noun phrases in mainly English, Swedish, and Finnish

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## 1. Introduction

This paper is based on mainly two observations about possessive noun phrases in English, Swedish, and Finnish. The first one is that coordination of possessive pronouns is degraded in English, for most combinations, but perfectly well formed in Swedish and Finnish.

- |     |    |                        |           |
|-----|----|------------------------|-----------|
| (1) | a. | ??my and your friends  | (English) |
|     | b. | mina och dina vänner   | (Swedish) |
|     |    | my and your friends    |           |
|     | c. | minun ja sinun ystävät | (Finnish) |
|     |    | my and your friends    |           |

The second observation concerns the adnominal pronoun construction (APC: *you children*, *we linguists*). Ever since Postal (1969) it has been widely accepted that the adnominal pronoun is a determiner taking the lexical noun as its complement, and ever since Abney (1987) it has been widely accepted that the determiner is the head of the argument noun phrase. As the head, the pronoun in the APC will reflect the case assigned to the DP; it is *we children* if the DP is subject, *us children* if the DP is object.<sup>1</sup> However when the APC is a possessor, the pronoun does not have Genitive (possessive) case, in English. The APC rather behaves as a lexical DP possessor, constructed (somewhat marginally) with the possessive clitic *-s*.

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<sup>1</sup> This is the Standard English rule. There is variation in English regarding nominative vs. accusative in various contexts. See below note 2 and discussion of (8).

- (2) a. \*your children opinions  
 b. ?you children's opinions

In Swedish, too, the possessive pronoun cannot have Genitive case.

- (3) \*era barn åsikter (Swedish)  
 you.PL.POSS children opinions

But in Finnish the APC can occur as a possessor with Genitive case.

- (4) teidän lapsien mielipiteet (Finnish)  
 you.GEN children.GEN opinions  
 "you children's opinions"

With some qualification, this is also possible in Hungarian. Another relevant observation is that the possessive construction in (4) does not admit possessor agreement on the noun, while this is optional or obligatory, depending on the variety of Finnish, with a bare possessive pronoun.

- (5) a. teidän mielipitee-nne (Finnish)  
 you.GEN opinions -2pl  
 "your.PL opinions"  
 b. teidän lapsien mielipitee (\*-nne)  
 you.GEN children.GEN opinions 2PL  
 "you children's opinions"

These observations will be made sense of with the help of the theory of agreement and incorporation articulated in Roberts (2010a, b). The possessive pronouns in English and Swedish are possessive determiner (Poss) heads derived by Agree between Poss and an NP-internal possessor argument in a structure [<sub>POSS/DP</sub> Poss NP]; this is how they are Case-licensed. If the possessor is lexical, Poss does not agree with it, but is spelled out as the invariant clitic –s. The possessor in Finnish is assigned Genitive case in the NP. If the possessor is a pronoun, it undergoes Agree with Poss in the structure [<sub>POSS/DP</sub> Poss NP], spelled out as an agreement suffix on the possessee noun. If the possessor is lexical, Poss does not agree with it. The APC, in spite of being headed by a pronoun, does not trigger agreement. In this way the reason why (2a) and (3) are ill-formed is the same reason why the possessive agreement suffix is ill formed in Finnish (5b): they feature illicit agreement. The reason why (5b) is well formed in Finnish without the possessive agreement suffix, unlike (2a) and (3), is that the possessor DP can get Genitive case independently. The situation in Hungarian will be touched upon briefly; it is similar, though not identical with the situation in Finnish.

## 2. The adnominal pronoun construction (APC) as possessor

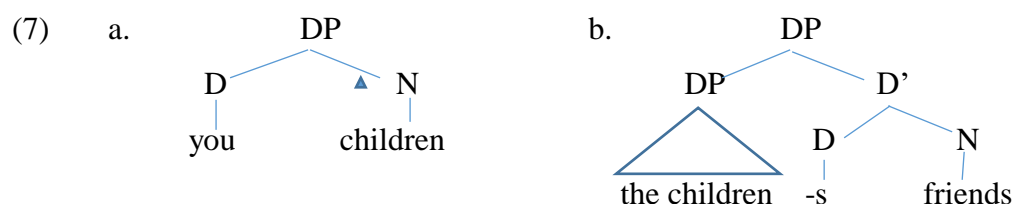
The following terminology will be used: A nominal construction with a possessor and a possessee will be called *possessive construction* or just *possessive*. The argument with the

possessor role will be called *possessor* or *possessor DP* (ignoring the issue whether nominal arguments are necessarily DPs in all languages, including Finnish, a language without articles). If it is a pronoun it will be called *possessor pronoun*.

Ever since Postal (1969) the adnominal pronoun construction (APC), exemplified in (6), has played a crucial role in the theory of noun phrase structure.

- (6) a. We children should be taken more seriously.  
 b. They look down on us children.

Postal (1969) used the APC to argue that pronouns are determiners taking a lexical NP as complement, where the lexical NP may be pronounced/spelled out or not. In Abney (1987) this became part of the argumentation for the DP-hypothesis. The structure of the APC would be (7a), under this hypothesis (here simplified; see Höhn 2017 for a more detailed analysis), while the structure of a DP with a lexical possessor DP would be (7b).



As can be seen in (6a,b), the pronoun in the APC overtly shows the case assigned to the DP; nominative in (6a), accusative in (6b).<sup>2</sup> In English the nominative-accusative distinction is visible only on pronouns. English also has a Genitive or possessive case visible on pronouns, as in *my book*, *our friends*, etc. It is visible only on pronouns if we take the clitic *-s* in (7b) to be a possessive marker of sorts but not a spell-out of Genitive case. The possessor pronoun cannot, however, be constructed as the head of an APC.

- (8) a. \*Our children opinions should be taken seriously.  
 b. ?We/us children's opinions should be taken seriously.  
 c. We/us children, our opinions should be taken seriously.

(8a) is virtually unparseable. (8b) may be somewhat marginal but is very clearly preferable to (8a), either with nominative or default pronominal accusative on the pronoun; there appears to be some variation among speakers which option they prefer. Another clearly well-formed alternative is (8c), with a left-dislocated APC combined with a possessor pronoun.

The same holds true of Swedish. (9a,b) shows that Swedish has the APC, with case visible on the pronoun.

- (9) a. Vi barn borde tas mera på allvar. (Swedish)  
 we children should take.PASS more on serious  
 "We children should be taken more seriously."  
 b. Dom ser ner på oss barn.  
 they look down on us children

<sup>2</sup> The following is an expression in a Facebook message written by a native English speaker: (This was) "a good plug for we skipraiders". This would be a case where the accusative case assigned by the preposition does not trickle down to the head of the APC.

“They look down on us children.”

(10a,b) show that the possessor pronoun cannot be constructed as an APC.<sup>3</sup>

- (10) a. \*Våra barn åsikter tas inte på allvar. (Swedish)  
our children opinions take.PASS not on serious  
b. ??Vi barns åsikter tas inte på allvar.  
we children’s opinions take. PASS not on serious  
“We children’s opinions are not taken seriously.”  
c. Vi barn, våra åsikter tas inte på allvar.  
we children our opinions take. PASS not on serious  
“We children, our opinions are not taken seriously.”

Standard Swedish has the possessive construction in (7b) with lexical possessors, essentially just like English (see Delsing 1998, Julien 2005; virtually the only difference is that the possessive clitic –s is not spelled with an apostrophe in Swedish).<sup>4</sup> (10b) would be an instance of that construction. It may be highly marginal, but is still preferable to (10a), which is word salad. (10c), with a left-dislocated APC, is a perfectly well formed alternative.<sup>5</sup>

This is not a universal case, though. Finnish has the APC, as shown in (11) (PAR = partitive).

- (11) a. Me lapset voimme tulla mukaan. (Finnish)  
we.NOM children. NOM can.1PL come along  
“We children can come along.”  
b. Ne eivät ota meitä lapsia vakavasti.  
they.NOM not.3PL take we.PAR children. PAR seriously  
“They don’t take us children seriously.”

The Finnish APC, like any other noun phrase, has morphological case on the head noun and on specifiers and modifiers, in this case on the pronominal determiner. In (11a) the case is nominative, the case of the subject of finite clauses. The case on the APC in (11b) is partitive, one of the object cases in Finnish. The possessor case in Finnish is Genitive. In possessives with a pronominal possessor, Standard Finnish has possessor agreement in the noun phrase, realized as a suffix on the noun; see (12a,b). The pronoun has Genitive case and can be null except in the 3<sup>rd</sup> person (see Brattico and Huhmarniemi 2016). With a lexical possessor, as in (12c), there is no agreement (the 3<sup>rd</sup> person suffix is neutral for number).

- (12) a. (Meidän) mielipiteitä -**mme** ei oteta vakavasti. (Finnish)  
we.GEN opinions. PAR-1PL not take.pass seriously  
“Our opinions are not taken seriously.”  
b. Heidän mielipiteitä -**nsä** ei oteta vakavasti.  
their.GEN opinions. PAR-3 not take.pass seriously

<sup>3</sup> (10b) seems even more marginal than (8b). There is no obvious explanation for this, in terms of the theory expounded here. It is also not confirmed by a proper comparative investigation, so I leave it aside here.

<sup>4</sup> There is much dialectal variation in Swedish, and Mainland Scandinavian generally, regarding the possessive construction (Holmberg and Sandström 1996, Delsing 1998, Julien 2005).

<sup>5</sup> The APC does not form a constituent together with the possessive pronoun in this case; (i) is ill formed.

(i) \*Dom skrattar åt vi/oss barn våra åsikter.  
they laugh at we/us children our opinions

- “Their opinions are not taken seriously.”
- c. Lapsien mielipiteitä (\*-nsä) ei oteta vakavasti.  
 children.GEN opinions 3 not take.PASS seriously  
 “(The) children’s opinions are not taken seriously.”

(13) shows that the APC can be a possessor, with Genitive marked on both the pronominal D and the NP. It also shows that the possessee head noun does not show possessor agreement, in that case (thanks to Balazs Suranyi for drawing my attention to this interesting and intriguing fact). The APC possessor behaves like a lexical possessor, in spite of being headed by pronoun.

- (13) Meidän lapsien mielipiteitä (\*-mme) ei oteta vakavasti. (Finnish)  
 we.GEN children.GEN opinions.PAR.1PL not take. PASS seriously  
 “We children, our opinions are not taken seriously.”

In colloquial Finnish (13) can alternatively mean ‘our children’s opinions are not taken seriously’. This is because colloquial Finnish does not make consistent use of the possessor agreement suffix. The Genitive pronoun can be interpreted as the determiner of an APC, but can also be interpreted as a possessor of the following noun, ‘our children’s opinions’. In Standard Finnish, where possessor agreement is obligatory, the meaning of ‘our children’s opinions’ would be expressed as in (14):

- (14) meidän lapsie -mme mielipiteitä (Finnish)  
 we.GEN children-1PL opinions  
 “our children’s opinions”

What is interesting in the present context, though, is the comparison of Standard Finnish (12a), (12c) and (13): The APC possessor does not trigger agreement, behaving in that sense like a lexical possessor, in spite of having a pronoun as head. It is not the case that the APC would not trigger agreement as determined by its pronominal head in other contexts, as in *We children are upset* or the Finnish example (11a); see Höhn (2017).

Even with a lexical possessor there is agreement on the noun if the possessor is outside the possessive construction. As argued by Brattico and Huhmarniemi (2015), this is because the possessor binds a null pronoun within the possessive construction which triggers agreement. The APC possessor also triggers agreement on the noun under these conditions, for the same reason, I assume; see (15a,b).

- (15) a. Lapset<sub>i</sub> kaipaavat [DP pro<sub>i</sub> ystäviä-nsä] (Finnish)  
 children miss.3PL friends-3PL  
 “The children miss their friends.”  
 b. Me lapset<sub>i</sub> kaipaavat [DP pro<sub>i</sub> ystäviä-mme]  
 we children miss -1PL friends-1PL  
 “We children miss our friends.”

Consider Hungarian. This language is well known for having two possessive noun phrase constructions (Szabolcsi 1983,1995). Both are constructed with a definite article. In one, the possessor is marked nominative and follows the definite article, in the other, the possessor is marked dative and precedes the definite article. In both constructions the noun features a possessor suffix, agreeing with the possessor in person and number when the possessor is a

pronoun. When the possessor is a lexical DP, there is no agreement. Even then (and unlike Finnish), the possessee noun has a suffix encoding possession. When the possessor is a pronoun, but not when it is a lexical DP, the possessive suffix is accompanied by a suffix agreeing with the pronominal possessor.<sup>6</sup>

- (16) a. a ti vélemén-ye -tek (Hungarian)  
the you opinion-POSS-2PL  
“your opinion”  
b. nektek a vélemén-ye -tek  
you.DAT the opinion -POSS-2PL  
“your opinion”  
c. a gyerekek vélemén-ye  
the children opinion -POSS  
“the children’s opinion”  
d. a gyerekeknek a vélemén-ye  
the children.DAT the opinion -POSS  
“the children’s opinion”

The APC does not appear in the morphologically unmarked NOM possessive construction, but may appear, somewhat marginally, in the dative possessive construction, with dative-marking both on the pronoun and the nominal (the APC-possessor is focused with the help of the focus marker *csak* ‘only’ in (17) in order to make sure that it is parsed as a constituent).<sup>7</sup>

- (17) a. \*csak a ti gyerekek véleménye (-tek) befolyásolja a .  
only the you.NOM children.NOM opinion.POSS -2PL influences the  
döntést  
decision.ACC  
b. ?csak nektek gyerekeknek a véleménye (\*-tek) befolyásolja a  
only you.DAT children.DAT the opinion.POSS-2PL influences the  
döntésünket.  
decision.ACC  
“It’s only you children’s opinion that influences our decision.”

However, as in Finnish, the APC-possessor does not trigger possessor agreement; see (17b). It behaves in this respect like a lexical DP.

Comparison of the four languages English, Swedish, Finnish, and Hungarian, limited though it is as a dataset, suggests the following generalization:

- (18) An APC can be a possessor argument if and only if the possessor is assigned morphological case.

Hungarian is a particularly interesting case, as the possessor can be an APC but only when it is dative-marked. On the assumption that the nominative ungrammatical option in (17a) is a

<sup>6</sup> Between the possessive suffix and the agreement suffix there is a number suffix denoting the number of the possessee NP. This suffix is null when the NP is singular, hence not indicated in these examples.

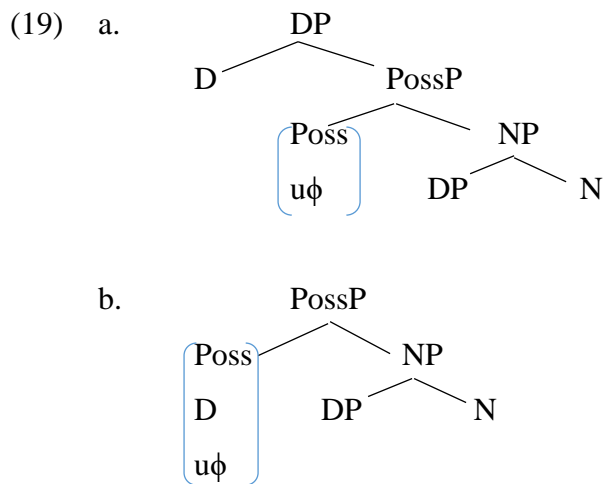
<sup>7</sup> I’m much indebted to Balasz Suranyi for data and discussion.

no-case option, this fact falls under the generalization (18). This idea will be developed in section 3.<sup>8</sup>

### 3. Deriving possessive constructions

#### 3.1. The structure of possessive constructions

I assume that nominal possessive constructions in the languages discussed here, English, Swedish, Finnish and Hungarian, have the structure (21a) (cf. Cardinaletti 1998, Delsing 1998, Julien 2005, Alexiadou et al. 2007). An alternative analysis is (21b).



In Hungarian, D in possessive constructions is spelled out as a definite article, while Poss is realized as a suffix on N. The structure (19a) is therefore quite clearly preferable to (19b) in Hungarian. In Finnish there is no overt article in possessive constructions, and in fact no overt articles anywhere (in Standard Finnish, which is the variety discussed here). This may imply that the category D is missing in Finnish (see Bošković 2009). In English and Swedish the possessive pronoun and the definite article have complementary distribution (*\*the my home*). While this could be taken as evidence that the structure (19b) is right, there are other reasons for thinking that (21a) is closer to the mark.<sup>9</sup> I will not include D as a feature of Poss

<sup>8</sup> In Icelandic, too, the possessor DP may be an APC, with Genitive case on the pronoun and the lexical noun (Halldór Sigurðsson, p.c.), and likewise in Polish (Gosia Krzek, p.c.).

- (i) Skoðanir ykkar stúdentar eru mikilvægar. (Icelandic)  
 opinions.NOM you.GEN students.GEN are important  
 'You students, your opinions are important.'
- (ii) opinia was dzieci nie będzie brana poważnie. (Polish)  
 opinion.NOM you.GEN children.GEN NEG be.FUT taken seriously  
 'You children, your opinion will not be taken seriously.'

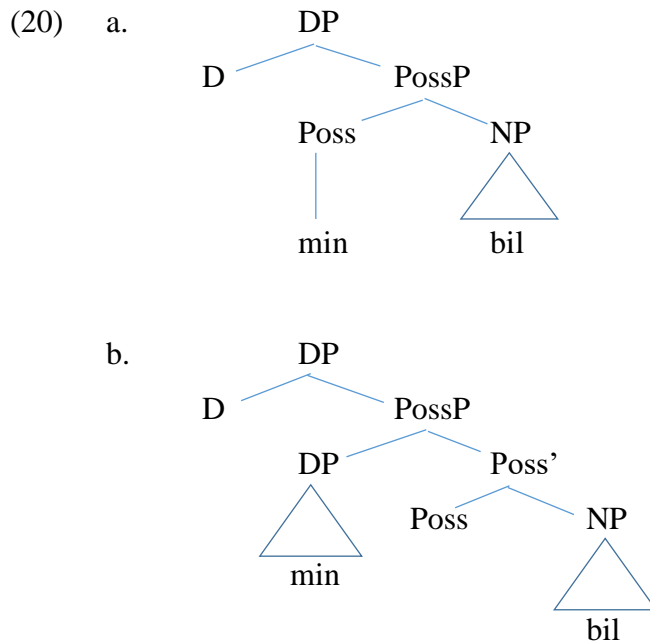
They are thus consistent with generalization (18). However, the possessor is postnominal in both languages, which complicates matters, and I will therefore put them aside.

<sup>9</sup> See the references just cited. One reason not mentioned in these references is that the prenominal possessive construction can be a predicate, as in *Mary is John's teacher*, where *John's teacher* can be interpreted as a set of which Mary is a member, i.e. it can be interpreted as a nominal predicate, which entails that it is smaller than DP (Holmberg 1993).

in what follows, but the theory and analyses developed here do not depend on this assumption.

The complement of Poss is more precisely a Number Phrase, dominating Num and NP (as it may contain a numeral or quantifier: *John's three cats*). I will ignore this additional structure. The possessor argument being a DP is also a simplification, to be modified below. (21) is not a representation of linear order. I assume the linear order is ultimately determined by the Linear Correspondence Axiom (Kayne 1994), which is to say, the linear order will be determined by the structural relations, particularly c-command relations, at spell-out. The construction will undergo the operation Agree (Chomsky 2001), which assigns feature values to the  $u\phi$ -features of Poss and assigns a Case value to the possessor DP.

Consider first Swedish. Delsing (1993,1998) argues that the possessor pronoun in Swedish is a Poss head, not a DP. The structure of, for example *min bil* 'my car' would be roughly (20a), not (20b) (he assumes D and Poss are separate heads).



He presents a number of arguments in favour of this idea. Specifically, he demonstrates that while pronominal arguments in other contexts can be somewhat complex in Swedish, possessor pronouns cannot. Consider, for example, (21) (based on Delsing 1998).

- (21) a, [Hela han] var täckt av lera (Swedish)  
 whole he was covered of mud  
 "He was all covered in mud."  
 b. \*[Hela hans] kropp var täckt av lera.  
 whole his body was covered of mud

The structure of the subject in (21a), I assume, is roughly (22), with a null D. The pronoun is, in this case, a noun modified by the adjectival quantifier *hel* 'whole'.<sup>10</sup>

<sup>10</sup> The string in (21b) is grammatical with the analysis (i).

(i) Hela [hans kropp] var täckt av lera. (Swedish)  
 whole his body was covered in mud



(22) [DP D [NP hela [NP han ]]]

If the pronominal possessor were a DP, (23b) would arguably be predicted to be well formed. If, on the other hand, the pronominal possessor is a D-type head, it is predicted that it would not be modifiable by an adjective.<sup>11</sup>

The following is a piece of evidence of the same kind, but for English.<sup>12</sup>

- (23) a. I want to hear an answer from the real you.  
b. \*I want to hear the real your answer.

In English, too, a pronoun can function as a noun in restricted circumstances. The structure of *the real you* is, I assume, roughly (22):

(22) [DP the [NP real [NP you ]]]

If the pronominal possessive pronoun were a DP, this would (arguably) predict that (23b) would be good, on a par with (23a).

Since the pronoun in (21) and (23) exceptionally functions as a noun, there may be other reasons why the counterpart possessive construction is not good; it could be that the Genitive case cannot ‘trickle down’ as far as to the head of NP. A more convincing piece of evidence that the possessor pronoun in English and Swedish is not a DP is provided by the observation that it cannot be an APC.

- (25) \*[våra barn] åsikter (Swedish)  
our children opinions  
Intended: “we childrens opinions”

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More evidence that the parse [hela hans] kropp is ruled out is provided by sentence fragments:

- (ii) Vems kropp var täckt av lera? (Swedish)  
'Whose body was covered in mud?'  
a. Hans.  
his  
b. \*Hela hans.  
whole his

<sup>11</sup> Julien (2005: 227-230) provides the following example to counter Delsing's (1998) claim that pronominal possessor pronouns are heads in Swedish:

- (i) [vårt alla] -s ansvar  
our all 's responsibility

In this case the possessor pronoun is embedded as specifier of a quantifier in a QP, with arguably no relation to the NP *ansvar*. Interestingly the pronoun has the Genitive form, rather than the (perhaps) more expected default form (which would be nominative *vi* in Swedish): ?*vi allas ansvar*.

<sup>12</sup> An anonymous referee points out that (i), although quite marginal, is still clearly better than (23b), as we would expect.

- (i) ?the real you's answer

A related construction, interesting in this context, is discussed by Tsoulas and Woods (forthcoming).

- (ii) Norman is both of our friends.

This looks like a clear counterexample to the claim made in the text that the English Genitive pronoun is a head taking the possessee NP as complement. I will put this issue aside in this paper, though.

(26) \*our children opinions

### 3.2 Coordination of possessor pronouns

The English coordination facts mentioned in the introduction provide another argument that possessor pronouns are not DPs, in English. Pronouns that are subjects or objects can be coordinated, as in (27), but possessor pronouns generally cannot, as seen in (28, 29) (Quirk et al. 1972: 601-602):

(27) [You and I] are friends. They didn't see [us or them].

- (28) a. ??my and your (friends)  
b. ??your and my  
c. ??my and his  
d. ?his and my  
e. ??your and his  
f. ?his and your  
g. ??my and her  
h. ??her and my  
i. ??your and her  
j. ??her and your  
k. his and her  
l. ??her and his

- (29) a. ??our and your  
b. ??your and our  
c. ??our and their  
d. ??their and our  
e. ??your and their  
f. ??their and your

This is not the full paradigm, as I have not included coordination of a singular and a plural pronoun, nor any coordination with *its*. However, even including them, the generalization is that all coordinations of two possessor pronouns are degraded, although less with those that have *his* as the first conjunct (particularly *his and her*). Assigning ?? to the rest of them is an idealisation. Speakers tend to agree that they are degraded, but to somewhat varying degrees. Putting that case of *his* aside for the moment, if the pronouns are Poss heads in a structure (20a), not DPs in a structure (20b), and in particular if they are derived by agreement, as will be proposed in the next section, that could explain why you cannot coordinate them.<sup>13 14</sup>

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<sup>13</sup> The assumption that possessive pronouns are heads does not, on its own, explain why they cannot be coordinated, since there is (at least apparently) coordination of some functional heads: *if and when (the situation changes)*, *She both can and will contest the decision*.

<sup>14</sup> Cardinaletti (1998) discusses coordination of pronouns in Italian, and notes that while postnominal possessor pronouns can be coordinated, prenominal ones cannot. Her analysis of the prenominal ones is not too dissimilar from the one articulated here for English and Swedish: She argues that they are clitics, which is what I will argue below holds true of the English and Swedish possessor pronouns, albeit in the context of a theory (Roberts 2010) where the derivation of pronominal clitics is different from that in Cardinaletti (1998). As discussed by Cardinaletti and Starke (1999), it is a criterial property of weak and clitic pronouns that they cannot be coordinated (cf. Kayne 1975, Holmberg 1986: 228-233). Thus, if the English possessive pronouns are weak or clitic pronouns we expect them not to be coordinatable. However, it is not the case that the extant theories actually explain why weak and clitic pronouns cannot be coordinated.

Perhaps surprisingly, in view of the discussion above, Swedish allows coordination of possessor pronouns. (30) only lists three coordinations, but in fact any combination of two pronouns is good.<sup>15</sup>

- (30) a. mina och dina vänner  
mine and your friends  
b. dina och hennes vänner  
yours and her friends  
c. våra och deras vänner  
ours and your friends

Note the glosses. Differently from English, the possessor pronouns in Swedish have only one form where English has a weak and a strong (independent) form: *my* vs. *mine*, *your* vs. *yours*, etc. The claim is that the Swedish coordinated pronouns in (30) are coordinated PossPs each with a pronominal head and an NP, as shown in (31), where the NP is elided/null in the first conjunct. I assume the coordination as a whole is a Conjunction phrase (CoP), as in Johannesen (1999), but this is not crucial.

- (31) [CoP [PossP mina [NP ~~vänner~~]] [och [PossP dina [NP vänner]]]]

Alternatively the second NP can be deleted, giving (32):

- (32) mina vänner och dina  
my friends and yours

Many speakers (although not all) agree that the English coordinations in (33) are better than the ones in (28) and (29), as we would expect, given that they can be analysed as coordination of two PossPs. The structure of, for example, *mine and your friends* would be roughly (34).

- (33) mine and your friends  
yours and his friends  
hers and his friends  
ours and their friends  
theirs and your friends

- (34) [CoP [PossP mine [NP friends]] [and [PossP your [NP friends]]]]

Now we can understand why *his* is an exception among the possessor pronouns; see (28): *his* is the only possessor pronoun which has an identical strong and weak form.<sup>16</sup> We can therefore assume that the structure of, for example *his and her friends* is roughly (35), a coordination of two PossPs.

- (35) [CoP [PossP his [NP friends]] [and [PossP her [NP friends]]]]

<sup>15</sup> I am indebted to Tom Swallow, who conducted a questionnaire-based experiment comparing coordination of possessive pronouns in English, Swedish, and Danish as part of his BA degree programme at Newcastle University in 2015.

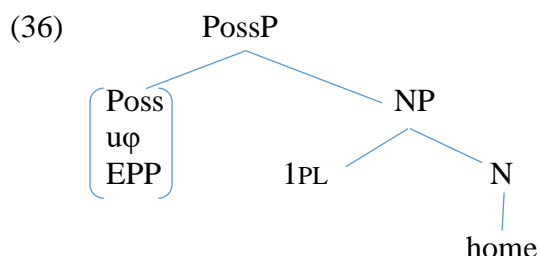
<sup>16</sup> The pronoun *its* also does not have a distinct weak and strong form. However, this is because it does not have a strong form: *I like my food and the cat likes his/\*its*. Interestingly, this is as predicted by Cardinaletti (1998) and Cardinaletti and Starke (1999): Strong pronouns can only have human reference.

Just as in Swedish, an alternative to *his and her friends* is *his friends and hers*, with the same structure (35), except that the second NP is deleted/null instead of the first one.<sup>17</sup>

Coordination of possessive pronouns in English is discussed in Payne (2011). Payne notes first that Quirk et al (1972) classifies them as ungrammatical. In a search of the British National Corpus he finds 12 examples of coordinated possessive pronouns, five of which are *his and her*. He takes this as evidence that coordination of possessive pronouns is not ungrammatical, and he proceeds to propose a syntactic analysis for them. In the spring of 2017, I did a search of coordinated possessive pronouns in a number of English corpora together with a group of students as part of an advanced syntax course at Newcastle University. Our findings were consistent with Payne's: a small quantity of examples were found in every corpus, proportional to the size of the corpus. For example the Corpus of Contemporary American English (COCA, then 520,000,000 words) contained 15 tokens of *your and my*, 13 of which were in the relevant context: *your and my* NP. We then did a comparison with a Swedish corpus, using the corpus search engine Korp, accessing a range of Swedish corpora. We picked the corpus *Tidningstexter* 'Newspaper texts' as it was roughly the same size as COCA (just over 592,000,000 words) and a similar genre, contemporary written sources. There were 235 tokens of *din och min* 'your/yours and my/mine', 166 of which were relevant. This gives a clear indication of how many examples you expect to find of this construction in a language where it is grammatical: more than 12 times as many as in English. We can only conclude that it is a marginal construction, at best, in English, unlike, for example, Swedish. This is what needs to be explained.

### 3.3 Agree in the possessive construction

Delsing (1998) studiously avoids taking a stand on what the source of the pronominal Poss head is. Following standard assumptions within phrase structure theory in general and Roberts (2010) in particular, I will assume that a head cannot itself be an argument. It can, however, agree with an argument, which is what happens in the PossP. The argument agreed with may itself be null, as for example in the case of a null subject in agreement with T in languages with rich subject-verb agreement (Biberauer et al. 2010). This is also the case in the PossP. I take the structure of the PossP *our home* to be (36), at the point when Poss is merged with NP.



<sup>17</sup> One question that remains unanswered in the present work is why it is that coordination of possessive pronouns is not ruled out altogether and uniformly, by English speakers. It is possible that coordinations like *my and your friends* can be analysed, at least by some speakers, as coordination of two DPs: [<sub>DP</sub> my friends] and [<sub>DP</sub> your friends], with exceptional deletion of the NP in the first conjunct; exceptional because a null NP normally requires the strong form pronoun *mine*. I leave this matter for future research.

The structure is, again, somewhat simplified. The NP that Poss merges with is more accurately a Num(ber)P, as mentioned earlier. The possessor argument, in this case, a bare pronoun, which I take, for now, to be made up of just the valued  $\phi$ -features [1,PL]. I shall refer to it as  $\phi$ P, a maximal category (though not actually a phrase; see note 18). The  $\phi$ P is assigned a role by N; I refer to it loosely as a possessor role.<sup>18</sup>

The head of PossP has the features [Poss,  $u\phi$ ] and an EPP feature. The presence of  $u\phi$ -features in Poss in English is a new hypothesis, to be tested here. It is less controversial in the case of Finnish and Hungarian, as will be discussed below.

Due to its  $u\phi$  features, Poss will probe its complement NP seeking a set of valued  $\phi$ -features. In the case of (36), it will find the  $\phi$ -feature set [1PL] and copy its feature values. As a result, and since the  $\phi$ P in (36) has no lexical content, after valuation the feature values of the pronoun will be a proper subset of the feature values of Poss.

Following Roberts (2010a,b), this means that the  $\phi$ P is formally a copy of Poss. The possessor pronoun and Poss form a chain of two copies, equivalent, in relevant respects, to a chain derived by movement, although in this case the chain is derived by Agree alone.<sup>19</sup> Roberts (2010a,b) refers to this as incorporation: The  $\phi$ P is incorporated in the head Poss. As is generally the case in chains, only one copy is spelled out, typically the higher copy. So the copy that is ‘deleted’, i.e. not spelled out, in this case is the  $\phi$ P. The resulting structure is (37). A morphological rule spells out the feature complex [Poss,D,1PL] as *our*. Note that there is no Case-feature involved; incorporation ensures that the resulting chain is visible to the morphological rules spelling out the pronoun (essentially as predicted by Baker (1988: 117-119).

(37) [<sub>POSSP</sub> [Poss, D, 1PL] [<sub>NP</sub> [~~1PL~~] home ]]]  $\rightarrow$  *our home*

Consider Finnish. The counterpart of our home is (38):

(38) (meidän) koti-mme (Finnish)  
our home-1PL

The underlying structure is, again, (36). Consider first the option with no spelled out pronoun. As in English, [ $u\phi$ ] probes and finds the valued  $\phi$ -features of the possessor pronoun. The values are copied. Since the pronoun is now a copy of the Poss head, it will be deleted, i.e. not spelled out in PF. The features are spelled out on Poss. The head Poss itself is spelled out as a suffix on the noun. While it may be attractive to think that the suffixation is a result of head movement of the noun to Poss (in particular as Finnish has head-movement in other

<sup>18</sup> This includes any role that can be assigned by a noun, including agent or theme (*their discovery of a new planet, my release from prison*, etc.). Alexiadou et al. (2007) postulate a head within what is called NP here, distinct from N, which introduces a possessor argument. They call this head Poss, not to be confused with the head Poss in the present model. Such a head could be assumed here, but would potentially increase the number of parameters more than is needed to account for the observations here, and will therefore not be assumed.

<sup>19</sup> The fact that the lower copy is a maximal category while the higher copy is a head is no obstacle. The lower copy, the pronoun, is in fact a minimal-maximal category (Chomsky 1995: 249). A category  $\alpha$  is minimal if it dominates no category distinct from  $\alpha$ , and maximal if it is not immediately dominated by a category non-distinct from  $\alpha$  (Roberts 2010: 54-56). The pronoun meets both conditions. All that matters for incorporation in Roberts’s sense is the feature content.

constructions; see Holmberg *et al.* 1993), the fact that adjectives and quantifiers precede the noun militates against such an analysis.

- (39) (meidän) uusi kotimme (Finnish)  
 “our new home”

I therefore assume some form of affix lowering from Poss to N to derive the suffixed noun form.

As (38) and (39) show, the pronoun can optionally be spelled out, with Genitive Case. I assume the Genitive Case is assigned by N to its specifier, the possessor (more on this below). I assume the optionality of spell-out is because the pronoun has a [uCase] feature optionally. If it does not, it will be deleted after Agree, as a copy of Poss. If it does, it will be spelled out, as the Case feature will rule out copy deletion (assuming that the Poss does not have a Genitive feature). Also, if it is not deleted, the EPP will trigger movement of it from NP to the spec of PossP, shown by the fact that it precedes the adjective, an adjunct to NP, in (39). The structure of (39) will be (40), if the Case option is taken.

- (40) [<sub>PossP</sub> [1PL, GEN] [<sub>Poss'</sub> [POSS, 1PL] [ [<sub>AP</sub> uusi] [<sub>NP</sub> [~~1PL~~, GEN] koti ]]]]

If the possessor is a lexical DP, there is no agreement, no copying of  $\phi$ -features between Poss and the possessor, neither in English nor in Finnish. In English this results in the spell-out of the  $\phi$ -features of Poss as -s, the default spell-out. In Finnish it is spelled out as absence of a possessor suffix and presence of Genitive morphological case on the possessor noun and its specifiers. Why is there no copying of  $\phi$ -features? An initially plausible hypothesis is that this is because a lexical DP does not have the  $\phi$ -feature that Poss wants, namely person, assuming that the 3<sup>rd</sup> person of a lexical DP is = no person (cf. Harley and Ritter 2002, Nevins 2007 for discussion). Consideration of the possessor-APC indicates that this is not the reason, though. The possessor-APC, being headed by a D encoding 1PL or 2PL, has person, yet does not trigger agreement. If there was agreement between Poss and a lexical possessor, with or without APC, the result would look like (41a,b), following EPP-driven movement of the possessor argument to the spec of PossP. The structure of (41b) would be (41c).<sup>20</sup>

- (41) a. \*the girl her car  
 b. \*we children our home  
 c. [<sub>PossP</sub> [we children] [<sub>Poss'</sub> our [<sub>NP</sub> <we children> [<sub>N'</sub> home]]]]]

This construction is in fact found in late 16<sup>th</sup> and 17<sup>th</sup> century English, the so called ‘his-Genitive’.

- (42) and then is there good vse of Pallas her Glasse  
 “and then there is good use made of Pallas’ mirror” (Allen 2002, example 5)

<sup>20</sup> The well-formed expression (i) contains the string *we children our home*. It does not, however, form a constituent. Instead, *we children* is a hanging topic. Example (ii) shows the effect when the string is analysed as a constituent.

(i) We/us children, our home is important to us.  
 (ii) \*They didn’t like we/us children our home.

As noted by Allen (2002), a construction like it is found in some other Germanic languages as well: Norwegian, Afrikaans, Dutch and German. Note, however, that in those languages the pronoun which, by hypothesis, spells out Poss is a reflexive pronoun which does not agree with the possessor. Even though the pronoun in 16<sup>th</sup>-17<sup>th</sup> century English did agree with the possessor, as shown by Allen (2002), it seems that this is a marked phenomenon.<sup>21</sup>

In Finnish, the absence of agreement between Poss and the possessor shows in the absence of an agreement suffix on the possessee noun.

- (43) a. lapsien koti (\*-nsa) (Finnish)  
           children.GEN home 3  
       b. meidän lapsien koti (\*-mme)  
           we.GEN children.GEN home 1PL

We also need to account for another difference between English and Finnish visible when comparing (43b) and (44) (cf. (2a)).

- (44) \*our children home

The APC can have a Genitive head in Finnish but not in English. As discussed in section 2, Swedish patterns like English in this respect, while Hungarian patterns like Finnish in the case when the possessor has Dative Case.

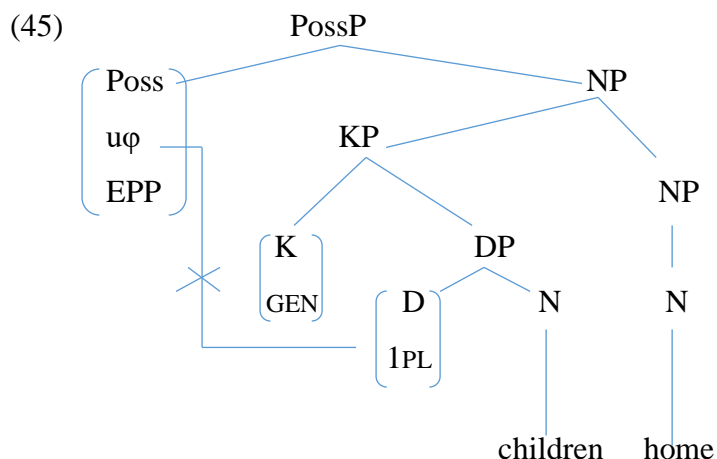
I propose that what blocks agreement between Poss and the lexical possessor in English and Finnish is Genitive Case. Just like oblique Case assigned to a subject blocks agreement between T and the subject, as seen very clearly in Icelandic (Thrainsson 2005), but also in Finnish (Laitinen and Vilkuna 1993, Holmberg 2010b:209-210), Genitive Case assigned to the possessor blocks agreement between Poss and the possessor. I propose, furthermore, that the formal mechanism blocking the agreement is a Case head K at the head of the possessor argument, intervening between Poss and D.

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<sup>21</sup> The following sentence, found on the web (thanks to Marit Julien for data and discussion) shows what a Genitive APC looks like in Norwegian, when employing the ‘his-Genitive’.

(i) Tror nok både hennes eget og oss barn sine liv ville vært bedre.  
       Think PRT both her own and us children their.REFL lives would have been better  
       ‘I do think both her own life and the lives of us children would have been better.’

The pronoun realizing Poss in the Norwegian his-Genitive is a reflexive which agrees with the possessee NP but not with the possessor, at least not directly; if the possessor is a pronoun it will agree with the possessee NP, hence indirectly with the reflexive.



I assume KP is assigned Genitive by N, along with the possessor theta role. Poss probes, but K blocks access to the  $\phi$ -features of D, with the result that  $[u\phi]$  of Poss is spelled out as *-s*.<sup>22</sup> The EPP steps into action and triggers movement of KP to merge again with PossP, deriving *we children's home* or *us children's home*, depending on which form of the pronoun is the default (which varies across dialects and idiolects).

One crucial difference between English and Finnish is that Finnish has morphological Case on nouns and specifiers of nouns. As in English, N assigns Genitive Case to KP. In Finnish this Case trickles down to D, with its person and number feature, and to N. As in English, Poss probes, but access to the  $\phi$ -features of D is blocked by K. The result is that the  $[u\phi]$ -features of Poss are ignored at both interfaces, LF and PF (there is no ‘crash’; see Preminger 2014). The EPP triggers movement and remerge of the KP with PossP. The valued Case-features of the noun and the possessor features are spelled out as Genitive.

If this is on the right track, then the pronominal form *meidän* ‘our’ in Finnish has two derivations: (a) The Genitive Case can be assigned directly by the possessee N to a bare pronoun. In that case Poss can agree with the Genitive pronoun, or (b) it can be assigned by N to a KP containing a possessive pronoun along with a lexical NP, and trickle down from KP to the pronoun. In that case there is no agreement between Poss and the head of the possessor, seen most clearly in the case of the APC possessor. In English there is one derivation only: the possessive pronoun is the spellout of agreement between Poss and the possessor.<sup>23</sup>

<sup>22</sup> A slightly different formal account is that the probing  $[u\phi]$  finds the Case-feature [GEN] of K, and copies this feature. Under this analysis, the *-s* would be a morphological realization of Genitive, as in traditional grammatical description.

<sup>23</sup> The difference between pronouns and lexical DPs in the way they agree with the Poss head in the possessive construction does not have an obvious analogue in subject agreement with T in the languages discussed here, but is found in some languages, including Irish and Welsh, where there is subject-verb agreement only with pronominal subjects. If we follow Roberts (2010a: 128-139) and analyse object clitics in Romance languages as the spell-out of agreement between v and the object, then there is a possible analogue to possessor-Poss agreement in the Romance varieties which do not allow clitic doubling, including French and varieties of Spanish and Italian. In those languages v agrees with the object, agreement realised as a pronominal clitic, only if the object is a pronoun. In other varieties there is, or can be, agreement also when the object is a lexical DP; they have so-called clitic-doubling.



### 3.4. A note on Hungarian

In section 2 we saw that Hungarian shows essentially the same pattern as Finnish, particularly in the case where the possessor has dative case. Like Finnish, Hungarian has possessor agreement, spelled out as a suffix on the possessee noun, when the possessor is a pronoun, not when it is a lexical DP.

- (46) a. nektek a vélemén-ye -tek (Hungarian)  
you.DAT the opinion -POSS-2PL  
“your opinion”  
b. a gyerekeknek a vélemén-ye  
the children.DAT the opinion -POSS  
“the children’s opinion”

As in Finnish, the possessor can be an APC, but only when it has dative case. On the assumption that nominative case on the possessor, which is the other alternative in the Hungarian possessive construction, means no case, the Hungarian APC conforms with the generalization (18), repeated here:

- (18) An APC can be a possessor argument if and only if the possessor is assigned morphological case.

And just as in Finnish, when the possessor is an APC, there is no possessor agreement. The APC behaves like a lexical DP in spite of being headed by a pronoun.

- (47) ?csak nektek gyerekeknek a véleménye (\*-tek) befolyásolja a döntésünket.  
 only you.DAT children.DAT the opinion.POSS-2PL influences the decision.acc  
 ‘It’s only you children’s opinion that influences our decision.’

As in Finnish, as well as (although less conspicuously) in English and Swedish, this is due to conditions on Agree between Poss and the possessor argument. In English an effect of this is that possessor pronouns cannot be coordinated. In Finnish and Hungarian an effect is absence of a possessor agreement suffix. For reasons of space I will not discuss the details of the Hungarian possessive construction here.

## 4. Conclusions

Probably the most controversial claim in this paper is that the possessor pronoun in English (*my*, *your*, *our*, etc.) is the spell-out of a possessive D-head derived by Agree with an abstract possessor DP within NP, within the theory of agreement articulated in Roberts (2010a,b). Delsing (1998) argued that the possessive pronoun in Swedish is a head, not an XP, but left open what the relation is between this head and the possessor argument within NP. The relation is Agree, valuation of unvalued  $\phi$ -features. As in certain other cases of Agree, only pronominal arguments can be goals.

Possessor agreement is familiar from languages which exhibit an affix on the possessee noun agreeing with the possessor. Two such languages are discussed here, Finnish and Hungarian.

Essentially the same phenomenon can be seen in these languages: only pronominal possessors trigger agreement, that is  $\text{u}\phi$ -feature valuation, on a probing head.

The theory can explain why coordination of possessive pronouns (*my and your, her and his*, etc.) are typically judged as degraded in English. Possessive pronouns in English are realizations of a functional head. Coordination of functional heads is a highly restricted phenomenon (but not unheard of; for instance auxiliaries in English can be coordinated). However, in this case the coordination of pronouns would have to be the result of Agree between Poss, containing a set of  $\text{u}\phi$ -features, and a possessor CoP in NP; very likely not an operation provided for by UG.

In Swedish coordination of possessive pronouns (*min och din* ‘my and your’, etc.) is perfectly grammatical. However, this is because the Swedish possessive pronouns can all take a null NP complement, unlike the English ‘weak form’ pronouns (there is no distinction between *my* and *mine* in Swedish). The coordinated pronouns can therefore always be analysed as coordination of PossPs, in Swedish. This also explains why *his* is the English pronoun which is most amenable to coordination as the first conjunct. This is because *his* is the one pronoun whose strong form is the same as the weak form.

Another fact that the theory can explain is why the adnominal pronoun construction (APC), for example *we children*, cannot have the head assigned Genitive case, in English or Swedish: *\*our children home*. Only Poss, the head of a possessive construction, can have that form. In Finnish the APC can have Genitive case and be possessor. Likewise in Hungarian the APC can be possessor provided it has Dative case. The APC does not trigger possessor agreement, though, in Finnish or Hungarian. That is to say, neither in English and Swedish on the one hand or Finnish and Hungarian on the other hand can Poss agree with the head of the APC; it is treated as a lexical, personless DP. By hypothesis, this is because it is assigned Genitive Case by N, taking the form of a head K, intervening and blocking Agree between Poss and the D of the Possessor. In Finnish and Hungarian, but not in English or Swedish, the Case assigned by N can trickle down to, and be spelled out on, the D and the N of the possessor, also when it is an APC, allowing it to function as a nominal argument with a Case-marked head.

Throughout the paper I have assumed that a bare possessive pronoun in English or Swedish consists of  $\phi$ -features only. A more articulated analysis would include a null N or null root merged with the  $\phi$ -feature set, as in Panagiotidis (2002), Elbourne (2008), Holmberg and Phimsawat (2017). This would complicate the condition on incorporation somewhat; we would need to postulate that the copy deletion operation does not see the null root. This would seem to be more of a technical than a substantive problem, though.

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