

One of Those Constructions that Really Needs a Proper Analysis

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1 Introduction

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- It has been noted before (e.g. Pinker (2014, p250), Huddleston and Pullum (2002), some prescriptive grammar), but has not received much attention in the formal literature. There is something very similar in Dutch (de Hoop et al., n.d.)
- The goal here is to explore the phenomenon, and describe a solution in the framework of HPSG.

- It is not a rare or exotic phenomenon:
 - (4) a. I asked one of **the medics** who **was** unloading the wounded.[A61/1052]
 - b. Dr Hemingway and colleagues, who developed the tests, have also found one of **the genes** that **makes** malaria-transmitting mosquitoes resistant to pesticides such as DDT. [AKD/871]
 - c. This generation of vipers has again bitten one of **the hands** that **was** stretched out in blessing it. [B1J/1984]
 - d. They raised one of **the questions** that **has** been consistently debated.
 - e. He will try to train one of **the dogs** that **has** been brought in today.
 - f. This is one of the best **goals** that **has** ever been scored at Wembley.
- In fact, it is very common — searching in Google Books for *one of the things that annoys me* gives about 389 results, *one of the things that annoy me* gives about 100 results.
- Common enough to have attracted (fairly mild) prescriptive attention.

- It appears to be almost entirely optional – most the above examples can be reformulated with a plural verb, e.g.

(5) This is one of **those problems** which really **annoy(s)** me.

- But there maybe exceptions – there seems to be a contrast here:

(6) a. One of the things that really **bug_s** me about you is the way you talk.
b. ??One of the things that really **bug** me about you is the way you talk.

- There is some slight difference of emphasis (or something), but there seems to be at least no truth conditional difference; so for now we assume synonymy.

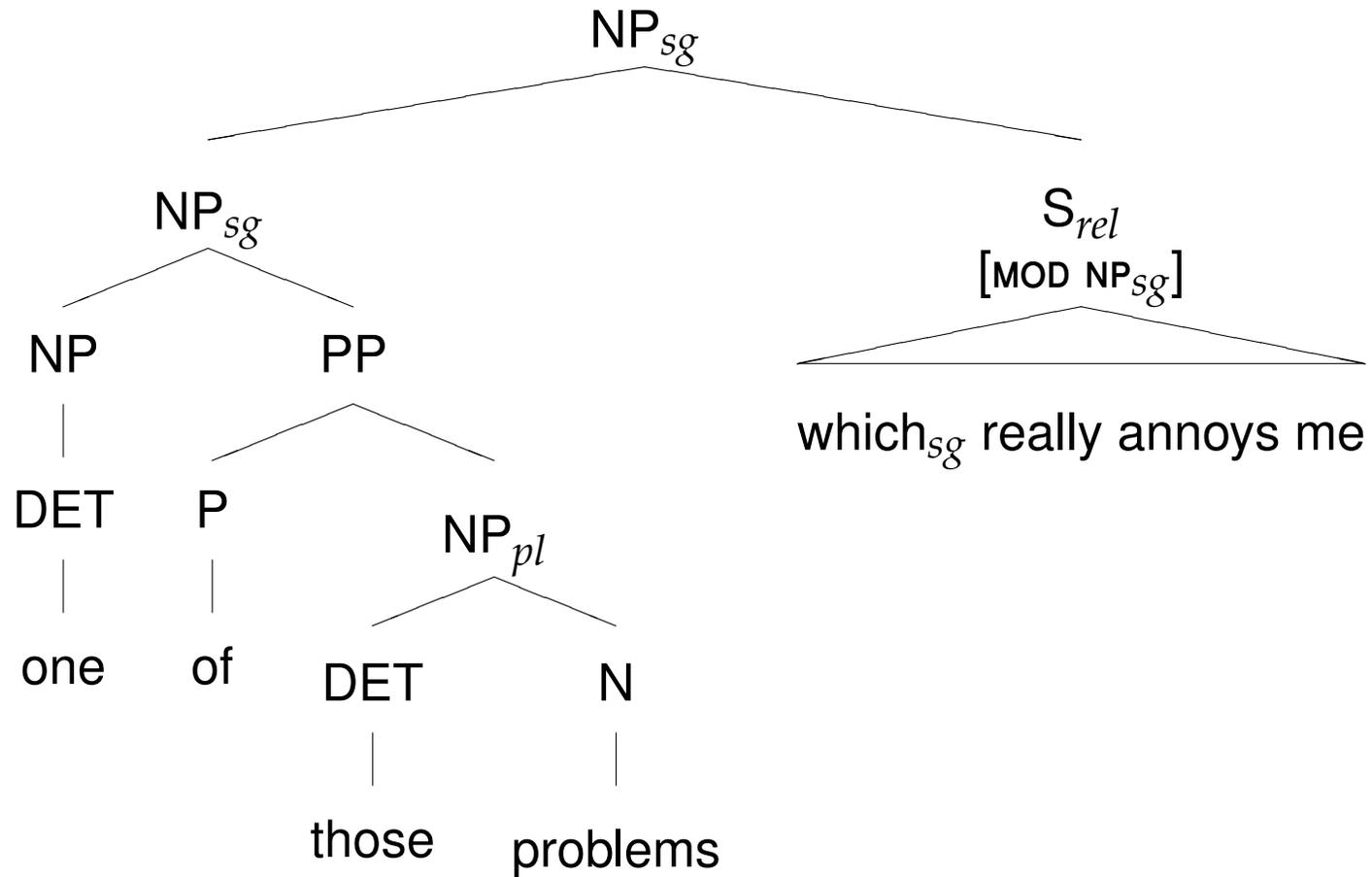
- The ingredients are a partitive containing: (i) *one*, (ii) a definite plural NP, and (iii) a singular relative clause:

(7) This is one of those problems which really annoys me.
(i) (ii) (iii)

Possible quick/easy (non-)solutions:

- The relative is modifying ‘one’ – like a non-restrictive relative perhaps?
- This is some kind of performance thing (“acceptable ungrammaticality”);
- ...
- None of these seem to work...

(8)



- This is a perfectly reasonable structure for some superficially similar examples, in particular, for non-restrictives:

- (9) a. This is [one of those problems]_i , which Δ_i really annoys me.
b. This is [one]_i (**which Δ_i really annoys me**) [of those problems]

But these have a different interpretation from (1). According to (9)[a/b]:

- there is a ‘identifiable’ set of problems (NB not *annoying* problems),
- one of which annoys me (cf. *This is one of those problems. And it really annoys me.*)

- This is not the natural interpretation of (1) — the natural interpretation of (1) is that there is an identifiable set of *annoying* problems:

(10) This is one of [*those problems* which Δ_i really *annoys* me], though they don't seem to annoy anyone else. [*they*='the annoying problems']

■ Similarly (=4b):

(11) A team at UCL have found one of **the genes** that **makes** malaria-transmitting mosquitoes resistant to pesticides such as DDT.

(11) could be uttered 'out of the blue' — the discourse need not contain a pre-established set of genes to warrant the definite article. Compare (12), which would elicit a puzzled “Which genes?”

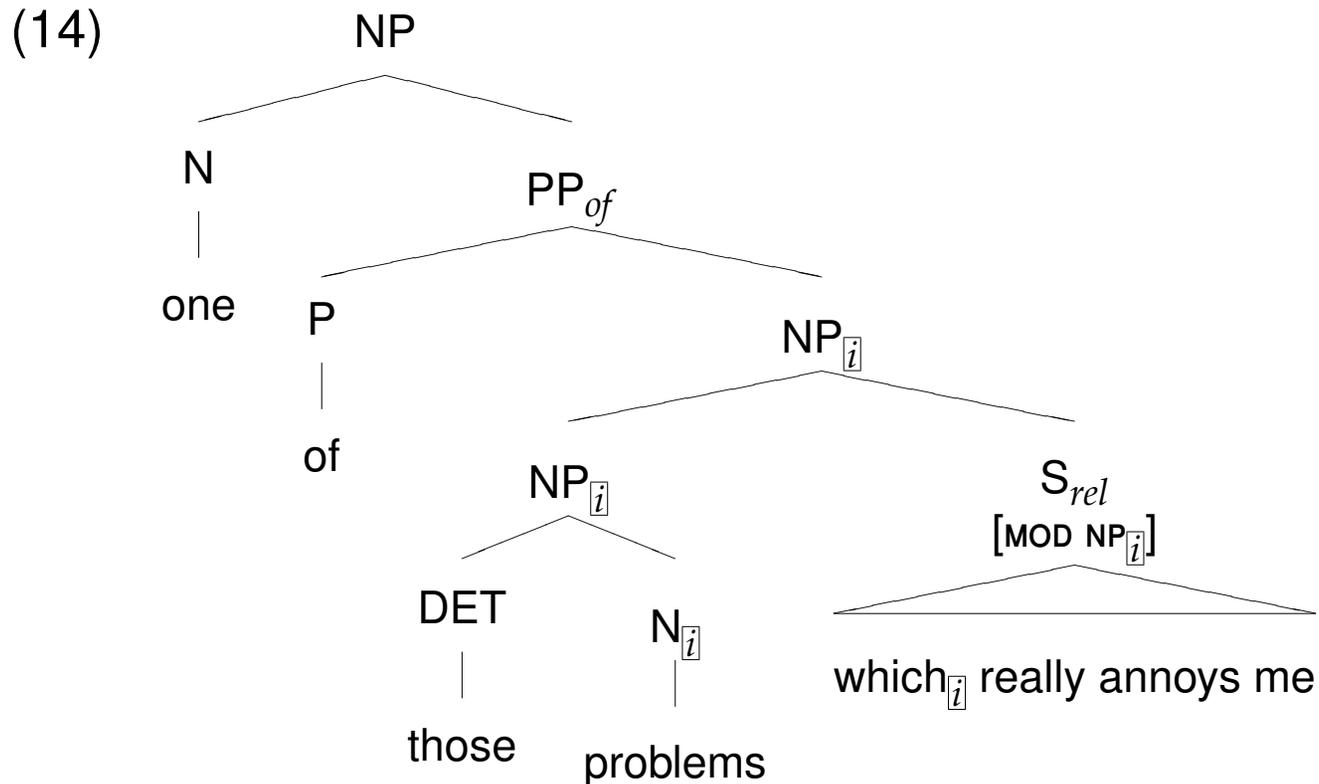
(12) A team at UCL have found one of **the genes**, which **makes** malaria-transmitting mosquitoes resistant to pesticides such as DDT.

- This point can be re-enforced by considering examples involving a superlative like (13a). Notice the negative polarity item *ever*, which is licensed by the superlative (cf. the ungrammaticality of (13b) without the superlative). This is strong evidence that the relative clause is interpreted ‘downstairs’ in the semantic scope of the superlative, i.e. inside the partitive PP.

- (13) a. This is one of **the most impressive goals** that **has** ever been scored at Wembley.
b. This is one of the goals that has (**ever*) been scored at Wembley.

- The relative clause is *not* modifying *one*.

- The structure that drives the semantics must be something like (14)



- But this looks impossible, because it requires the index i to be singular in some places and plural in others.

- So we need to look more closely.
 - the external properties of the top NP
 - the internal properties of the relative clause
 - the properties of the *of* NP
 - the internal properties of the top NP

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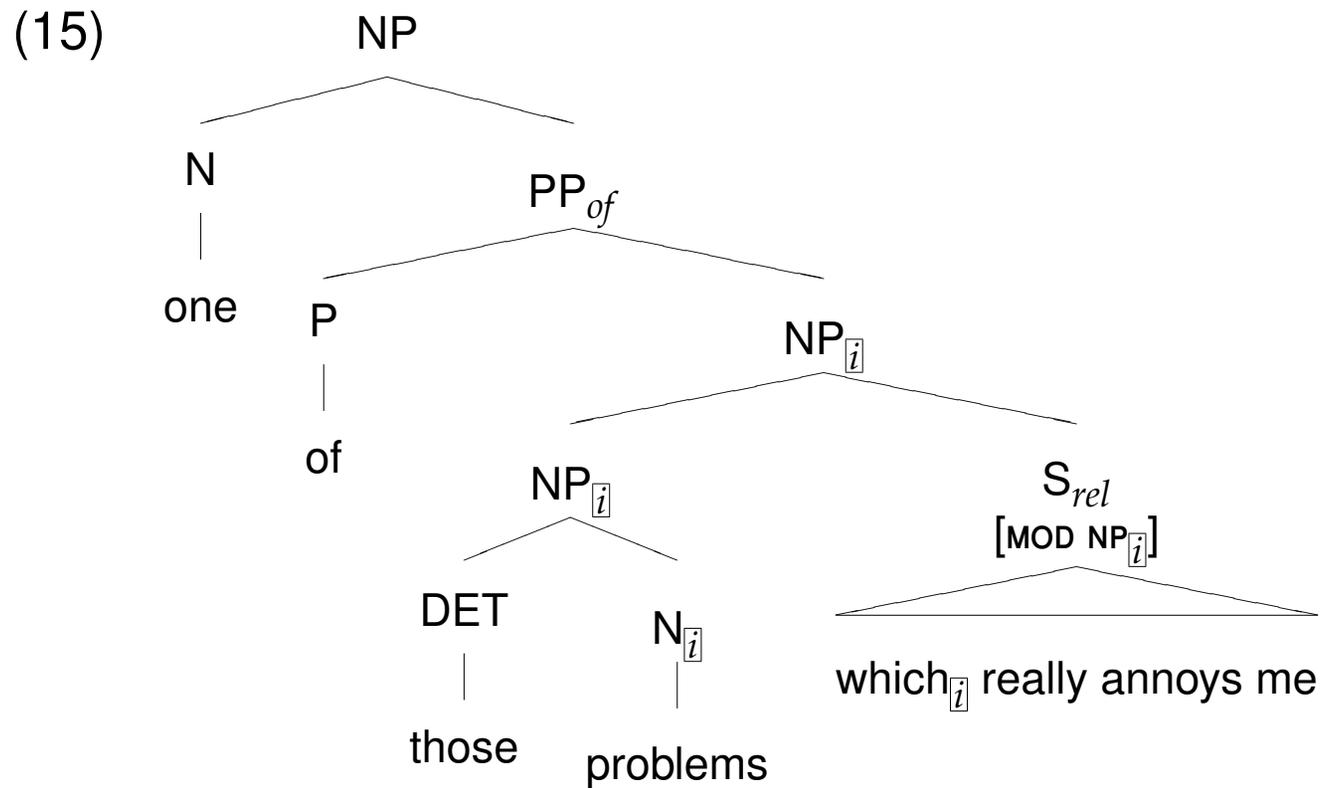
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2 Phenomena



2.1 The External Properties of the Top NP

- Externally, the top NP is a normal singular indefinite:

- (16) a. There's [one of those letters that always annoys you] in the post.
b. [One of those letters that annoys you] **has** found **its** way into the post.
c. I have just torn up [one of those letters that always annoys you].
d. It's either [[a circular] or [one of those letters that always annoys you]].

- Except that it introduces a plural entity into the discourse:

- (17) I've solved one of those problems that annoys you.
a. But *the others* are going to have to wait.
b. I decided *they* could not wait

- (18) I've solved a problem that annoys you.
a. *The others are going to have to wait.
b. *I decided *they* could not wait.

2.2 The Internal Properties of the Relative Clause

(19) This is one of those problems which really annoys me.

- The relative clause seems to be internally normal.

- Both *wh*- and *that* relatives are possible (see above):

- (20) a. one of **the medics** who **was** unloading the wounded
b. one of **the dogs** that **has** been brought in today

- The relativized NP need not be a ‘top-level’ subject:

- (21) This is one of **those problems** that [we think [Δ_i **deserves** urgent attention]].

- Subject relatives are the most obvious (because of subject-verb agreement), but reflexivization data show it is not restricted to subject relatives:

- (22) a. He is one of **those people** who Δ_i just can't behave **himself_i**.
b. He's one of **those people** who_i you should leave Δ_i strictly to **himself_i**.

- (23) a. If we add this number to itself, we get an interesting result.
b. This is one of **those numbers** which_i you can add Δ_i to **itself_i** to get an interesting result.
- (24) a. We should try to save this institution from itself.
b. This is one of **the institutions** that_i we should try to save Δ_i from **itself_i**.

- Similarly for other anaphoric pronouns:

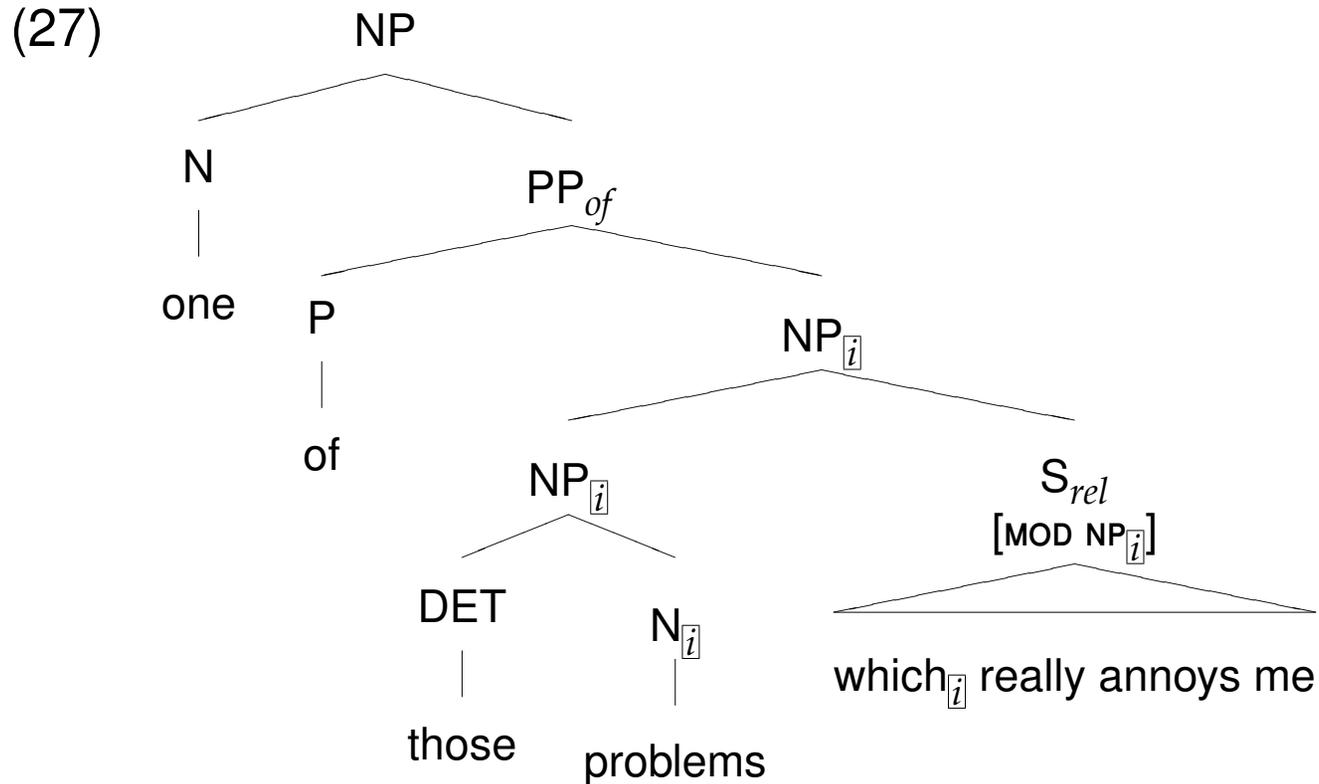
(25) He is one of **those patients** you can't understand Δ_i until you have met **his_i** mother.

- As well as finite relatives, non-finite relatives are possible:

(26) One of **the first kennels_i** to establish **itself_i** as a consistent winner in the show ring was the Tankerville Kennel. (BNC AR5/753)

- Conclusion: The relative clause is entirely normal, in particular, subject-verb, and pronoun-antecedent agreement inside the relative clause are working normally, and the relative pronoun is singular.
- Assuming the analysis of relative clauses in Sag (1997), the relative clause is specified as mod:NP_i , where i is the index of the relative pronoun.
- Thus, in this construction, the relative clause is mod:NP_{sg} .

2.3 The Properties of the 'downstairs' DET+N phrase



(28) This is one of those problems which really annoys me.

- Morphosyntactically it is clearly plural — one *never* sees phrases like *the problems* or *those problems* triggering singular index agreement (e.g. on verbs or reflexives, where index agreement is involved):

(29) These/the problems are/*is difficult to solve.

(30) These/the problems won't solve themselves/*itself.

- Moreover it introduces a plural entity into the discourse:

(31) This is one of those problems that annoys you.

(32) a. *They* (=the problems) don't annoy me.

b. *The others* (=other problems) are easier.

- Hence the DET+N is almost certainly NP_{pl}.

2.4 The downstairs NP+Relative Clause

- The downstairs NP is NP_{pl} (i.e. [INDEX | NUM pl])
- The Relative Clause is MOD:NP_{sg} (i.e. [MOD | INDEX | NUM sg])
- But NP internal agreement sometimes involves ‘syntactic’ agreement (CONCORD), rather than ‘semantic’ agreement (INDEX values); is there any mileage here?
- It is normally assumed that for number values (as opposed to gender values), concord and index are identical – though [Wechsler and Zlatić \(2003\)](#) discuss a class of collective nouns in Serbo-Croat (the *deca*-type) which trigger singular agreement inside NP (so that constraint can be only a default).
- We would have to say that what matters for relative clause attachment is the CONCORD, not the INDEX, value:

■ Schematically:

The standard picture:

DET+N	Relative Clause
$\left[\begin{array}{ll} \text{CONCORD} & \boxed{1} \\ \text{INDEX} & \boxed{1} \text{ } \textit{pl} \end{array} \right]$	$\left[\text{MOD} \left[\begin{array}{ll} \text{CONCORD} & \boxed{1} \\ \text{INDEX} & \boxed{1} \text{ } \textit{sg} \end{array} \right] \right]$

If INDEX did not matter (a):

$\left[\begin{array}{ll} \text{CONCORD} & \boxed{1} \\ \text{INDEX} & \boxed{1} \end{array} \right]$	$\left[\text{MOD} \left[\begin{array}{ll} \text{CONCORD} & \boxed{1} \textit{pl} \\ \text{INDEX} & \boxed{2} \textit{sg} \end{array} \right] \right]$
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If INDEX did not matter (b):

$\left[\begin{array}{ll} \text{CONCORD} & \boxed{2} \textit{sg} \\ \text{INDEX} & \boxed{1} \textit{pl} \end{array} \right]$	$\left[\text{MOD} \left[\begin{array}{ll} \text{CONCORD} & \boxed{1} \\ \text{INDEX} & \boxed{1} \end{array} \right] \right]$
---	---

- The mismatch between CONCORD and INDEX mismatch could be in the relative clause (a) or the DET+N (b).

- But neither is plausible.
- Nowhere else can relative clauses with singular relative pronouns modify plural nouns — (33) is normally completely ungrammatical:

(33) *I want to talk about [those problems which has been annoying me].

2.5 The Properties of the PP_{of}

(34) This is one of those problems which really annoys me.

- The construction as a whole is a kind of partitive.
- In partitives involving countable nouns, the ‘downstairs’ NP (the NP in the *of* PP) must be plural (and definite):

(35) a. She is one of my friends.
b. *She is one of my friend.

- It seems rather plausible that this should involve a plural index (i.e. a semantic plurality).

- So the downstairs PP should [INDEX pl], just like the NP it contains:
 - Either the preposition is making a semantic contribution and that contribution ensures plurality;
 - Or it makes no contribution – it just passes on the plurality of the NP it contains.

2.6 Properties of the Upstairs DET (i.e. *one*)

- *One* is the most obvious quantity word that allows this kind of behaviour.

(36) $\left\{ \begin{array}{l} \text{One} \\ *Two \\ *Some \\ *Many \\ *All \\ \text{None} \end{array} \right\}$ of those problems that annoy^s you ...

- Mass determiners also don't allow any freedom (they are consistently singular):

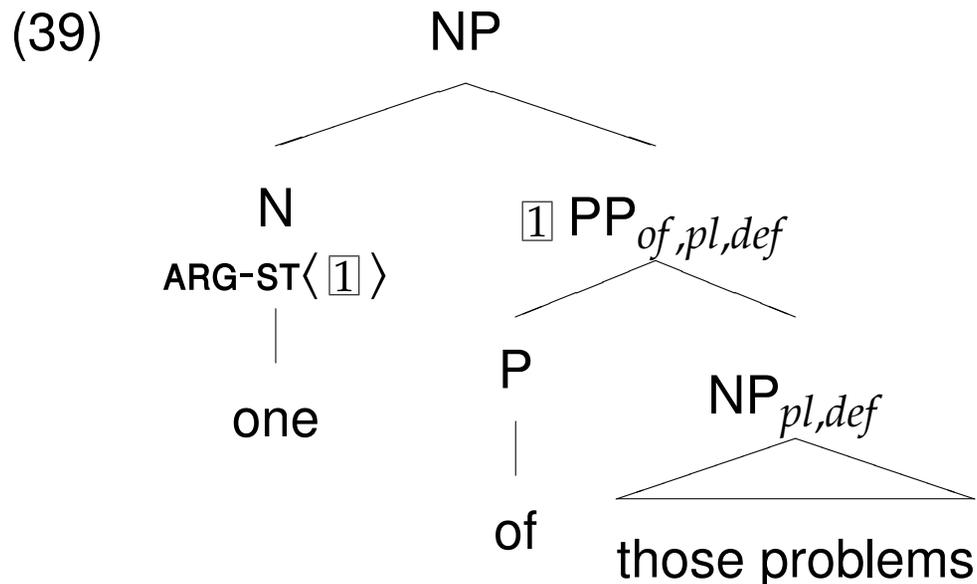
(37) $\left\{ \begin{array}{l} *Some \\ *Much \\ *All \end{array} \right\}$ of that advice that annoy you ...

- Note also that overt nouns are excluded:

(38) *One $\left\{ \begin{array}{l} \text{token} \\ \text{example} \\ \text{instance} \end{array} \right\}$ of the problems that annoy_s you

- This makes it plausible to suggest (following Huddleston and Pullum (2002)) that partitive *one* is a crucial part of the construction.

- The correct analysis of partitives like is not obvious:
 - a construction: NP → QuantityWord PP_{of}
 - an empty nominal (*one* Δ *of those problems*)
 - Kim (2002), Kim and Sells (2008), Flickinger (2008) assume quantity words are (nominal)s head of the partitive, as in (39); we assume an entry for *one* as in (40)



(40) a. lexical entry for *one*

b.
$$\left[\begin{array}{c} \text{ARG-ST} \left\langle \left[\text{LOC} \mid \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \\ \text{RESTR } \boxed{R} \end{array} \right] \right] \right\rangle \\ \text{SS} \mid \text{LOC} \left[\text{CONT} \left[\begin{array}{l} \textit{one-part-rel} \\ \text{INDEX } \boxed{x} \left[\text{NUM } \textit{sg} \right] \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X} \right\} \cup \boxed{R} \end{array} \right] \right] \end{array} \right]$$

(41) a. one of those problems

b.
$$\left[\text{SS} \mid \text{LOC} \mid \text{CONT} \left[\begin{array}{l} \textit{one-part-rel} \\ \text{INDEX } \boxed{x} \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X}, \textit{problems}^*(\boxed{X}) \right\} \end{array} \right] \right]$$

c.
$$\left[\text{SS} \mid \text{LOC} \mid \text{CONT } x:\textit{one-of}(x, X, \textit{problems}^*(X)) \right]$$

- In the normal case, relative clauses share the index of the nominal they modify, and add their restrictions to its restrictions:

(42) a. one of those problems [*that_{pl} annoy_{pl} me*]

b. $\left[\begin{array}{l} \text{SS | LOC | CONT} \left[\begin{array}{l} \text{one-part-rel} \\ \text{INDEX } \boxed{x} \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X}, \text{problems}^*(\boxed{X}), \text{annoy}^*(\boxed{X}, \text{me}) \right\} \end{array} \right] \end{array} \right]$

c. $\left[\text{SS | LOC | CONT } x:\text{one-of}(x, X, \text{problems}^*(X) \wedge \text{annoy}^*(X, \text{me})) \right]$

2.7 Other Constructions?

There are other constructions which show number mismatches.

- There are cases where a plural nominal gets treated as singular (cf. H&P p354), in particular, cases involving measure phrases:

(43) [That ten days we spent in Florida] was fantastic.

H&P speak of the plural *ten days* being ‘respecified’ as singular, and cf. Polard and Sag (1994).

But this is quite unlike our construction. What we have in (43) is a plural NP respecified as singular (denoting a single entity – a group or collection), our construction involves a singular predicate being understood as plural.

- Measure phrases (pseudo-partitives) also show some odd (variable) agreement behaviour
- (44) a. That pile of problems that has puzzled philosopher down the ages...
b. That pile of problems that have puzzled philosopher down the ages...
- But this is a straightforward matter of high vs low attachment and (modification of *pile* vs *problems*)

- Some measure phrases seem to be ‘transparent’ to number, e.g. *a lot of problems* seems to be internally singular, but it is externally plural.

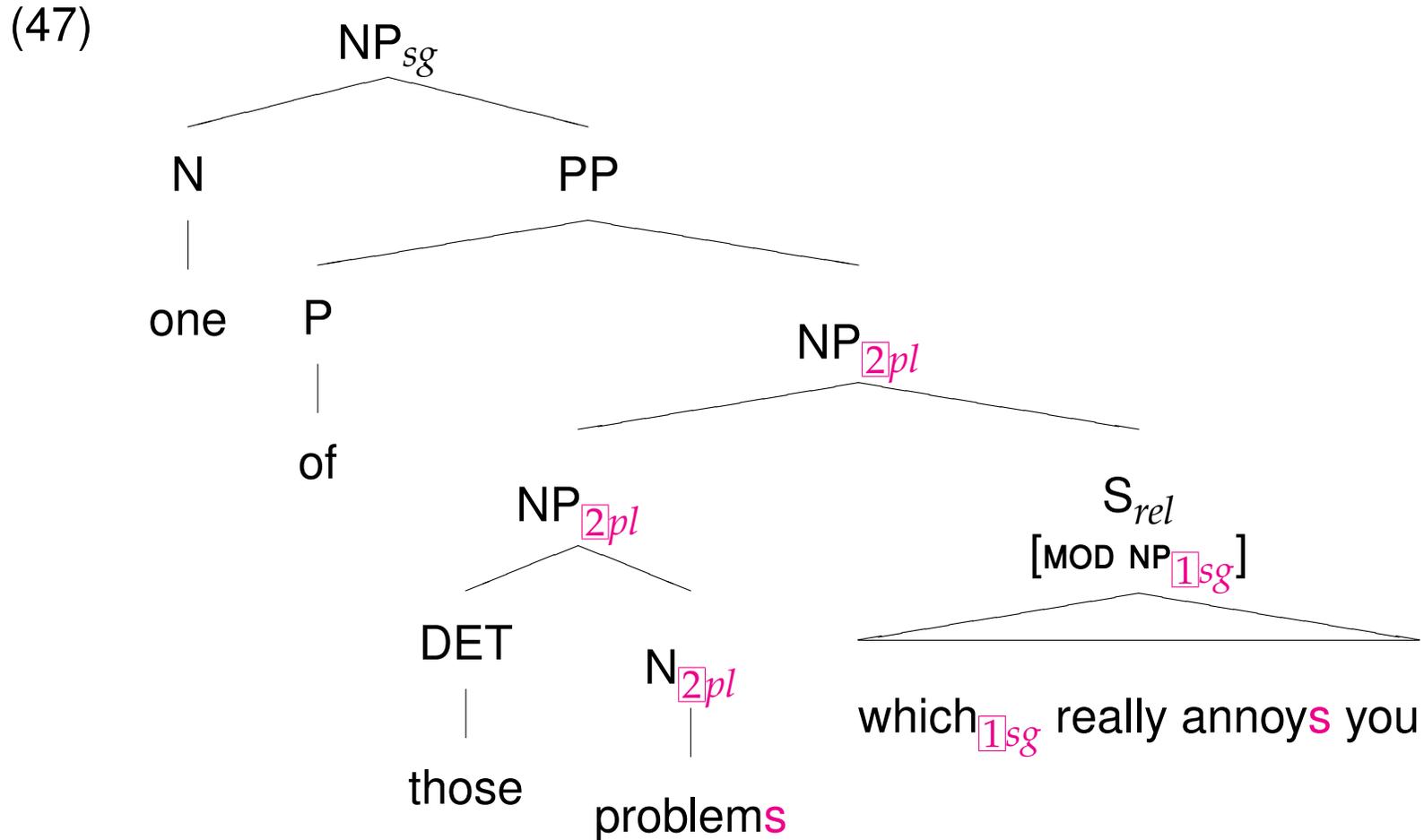
(45) [A lot of problems] have been solved today.

- But of course our construction does not involve a measure phrase.

- In fact, with measure phrases like this ‘our’ construction is never allowed:

- (46) a. One of those problems_{pl} that Δ_{sg} annoys you ...
b. *A lot of those problems_{pl} that Δ_{sg} annoys you ...

So we have, where 1=2:



- This is clearly impossible.

- We appear to have a paradox: the singular relative is in some sense selected by *one*, at the top of the partitive construction, but makes its semantic contribution at the bottom of the construction, inside the *of*-PP.

- But what can we give up?

- We have:
 - A normal singular relative clause (i.e. that is looking for a singular nominal to modify)
 - A normal plural NP in a partitive PP
 - We have somehow to combine them.

- We are really in a mess: we should be prepared to try anything!

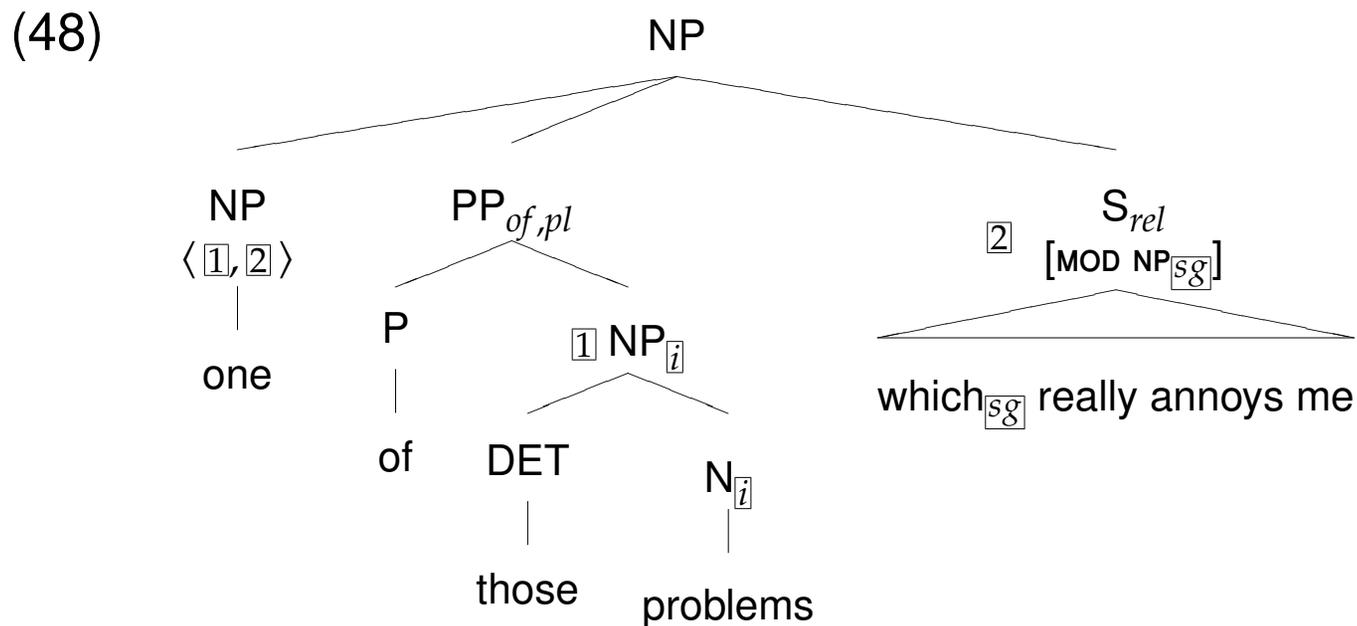
- H&P think the cause of all this is the *one* (which is singular, of course)
- We try to develop this idea.

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3 Analysis

- Try to develop H&P's intuition that this *one* plays a crucial role here.
- The problem is that the relative clause seems to make its semantic contribution 'downstairs';
- But recognising the crucial role of *one* requires the relative clause to be selected by *one* – 'upstairs';
- Moreover, while the relative clause is 'singular', its contribution must be 'plural'.

- Assume a structure something like (48), where the relative clause [2] is interpreted as an adjunct of the downstairs NP [1];



- Partitive *one* allows an optional Relative Clause argument which is interpreted as a modifier of its PP argument:

$$(49) \left[\begin{array}{l} \text{ARG-ST} \left\langle \left[\begin{array}{l} \text{PP} \\ \text{LOC} | \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \\ \text{RESTR } \boxed{R} \end{array} \right] \right] , \left[\begin{array}{l} \text{Relc} \\ \text{LOC} | \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \\ \text{RESTR } \boxed{R'} \end{array} \right] \right] \right\rangle \\ \text{SS} | \text{LOC} \left[\begin{array}{l} \text{CONT} \left[\begin{array}{l} \textit{one-part-rel} \\ \text{INDEX } \boxed{x} \left[\text{NUM } \textit{sg} \right] \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X} \right\} \cup \boxed{R} \cup \boxed{R'} \end{array} \right] \end{array} \right] \end{array} \right]$$

- Of course, this only works if the INDEX of the relative clause is plural (which it isn't in our case).
- We need to somehow 'singularize' the relative clause.

- Introduce a ‘singularize’ operation – but what would it be?
- Rethink the approach to (index) agreement – e.g. introduce a new feature REF for ‘reference tracking’ which can be shared independent of number values (cf Müller, 1999).
- Somehow ‘restrict out’ and respecify the number value on the relative, as in (50).

$$(50) \left[\begin{array}{l} \text{ARG-ST} \left\langle \begin{array}{l} \text{PP} \\ \left[\text{LOC} \mid \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \\ \text{RESTR } \boxed{R} \end{array} \right] \right] , \left[\text{LOC} \mid \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \text{ ! } [\text{NUM } \textit{sg}] \\ \text{RESTR } \boxed{R'} \end{array} \right] \right] \end{array} \right\rangle \\ \text{SS} \mid \text{LOC} \left[\begin{array}{l} \text{CONT} \left[\begin{array}{l} \textit{one-part-rel} \\ \text{INDEX } \boxed{x} [\text{NUM } \textit{sg}] \\ \text{RESTR } \{ \boxed{x} \in \boxed{X} \} \cup \boxed{R} \cup \boxed{R'} \end{array} \right] \end{array} \right] \end{array} \right]$$

- The problem is that while this ‘singularizes’ \boxed{X} , it does not affect the predicates in $\boxed{R'}$ – these are singular, but need to be plural if they are to be predicated of \boxed{X}
- Moreover, the notation $\left[\text{INDEX } \boxed{X} ! \left[\text{NUM } \textit{sg} \right] \right]$ does not really ‘singularise’ \boxed{X} – it creates a *copy* of \boxed{X} – like a new variable; compare:

(51) a. one of those problems [that_{sg} annoys_{sg} me]

- b. $\left[\begin{array}{l} \text{SS | LOC | CONT} \\ \text{INDEX } \boxed{x} \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X}, \text{problems}^*(\boxed{X}), \text{annoys}(\boxed{y}, \text{me}) \right\} \end{array} \right]$
- c. $\left[\text{SS | LOC | CONT } x:\text{one-of}(x, X, \text{problems}^*(X), \text{annoys}(y, \text{me})) \right]$

(52) a. one of those problems [that_{pl} annoy_{pl} me]

- b. $\left[\begin{array}{l} \text{SS | LOC | CONT} \\ \text{INDEX } \boxed{x} \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X}, \text{problems}^*(\boxed{X}), \text{annoy}^*(\boxed{X}, \text{me}) \right\} \end{array} \right]$
- c. $\left[\text{SS | LOC | CONT } x:\text{one-of}(x, X, \text{problems}^*(X), \text{annoy}^*(X, \text{me})) \right]$

- We need something a bit more subtle.

- Distribute the content of the relative clause across the content of the *of*-PP:

(53) a.
$$\left[\begin{array}{l} \text{ARG-ST} \left\langle \left[\begin{array}{l} \text{PP} \\ \text{LOC} \mid \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{X} \\ \text{RESTR } \boxed{R} \end{array} \right] \right] , \left[\begin{array}{l} \text{Relc} \\ \text{LOC} \mid \text{CONT} \left[\begin{array}{l} \text{INDEX } \boxed{y} \\ \text{RESTR } \boxed{R_{sg}} \end{array} \right] \right] \right\rangle \\ \text{SS} \mid \text{LOC} \left[\begin{array}{l} \text{CONT} \left[\begin{array}{l} \textit{one-part-rel} \\ \text{INDEX } \boxed{x} \left[\text{NUM } \textit{sg} \right] \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X} \right\} \cup \boxed{R} \cup \Sigma \right] \end{array} \right] \end{array} \right] \end{array} \right]$$

b.
$$\Sigma = \left\{ \left[\begin{array}{l} \text{QUANTS} \left[\begin{array}{l} \textit{foreach} \\ \text{INDEX } y \\ \text{RESTR } \left\{ \textit{partof}(y, X), \textit{atomic}(y) \right\} \right] \right] \\ \text{NUCL } \boxed{R_{sg}} \end{array} \right] \right\}$$

(54) a. one of those problems [that_{sg} annoys_{sg} me]

b. $\left[\begin{array}{l} \text{SS | LOC | CONT} \left[\begin{array}{l} \text{one-part-rel} \\ \text{INDEX } \boxed{x} \\ \text{RESTR } \left\{ \boxed{x} \in \boxed{X}, \text{ problems}^*(\boxed{X}), \text{ forall}(y, y \in X, \text{ annoys}(y, \text{me})) \right\} \end{array} \right] \end{array} \right]$

c. $\left[\text{SS | LOC | CONT } x:\text{one-of}(x, X, \text{ problems}^*(X), \text{ forall}(y, y \in X, \text{ annoys}(y, \text{me}))) \right]$

■ Cf. *one of those problems such that each of them annoys me.*

- This gives us the right semantics (viz. all the problems annoy me)
- But it does not deal with all the data.
- The relative clause need not be a modifier of the *of*-PP — it can also be interpreted *inside* the *of*-PP:

- Consider (55a) (=4f))

- (55) a. This is one of the best **goals** that **has** ever been scored at Wembley.
b. This is one of the most impressive **goals** that **has** ever been scored at Wembley.

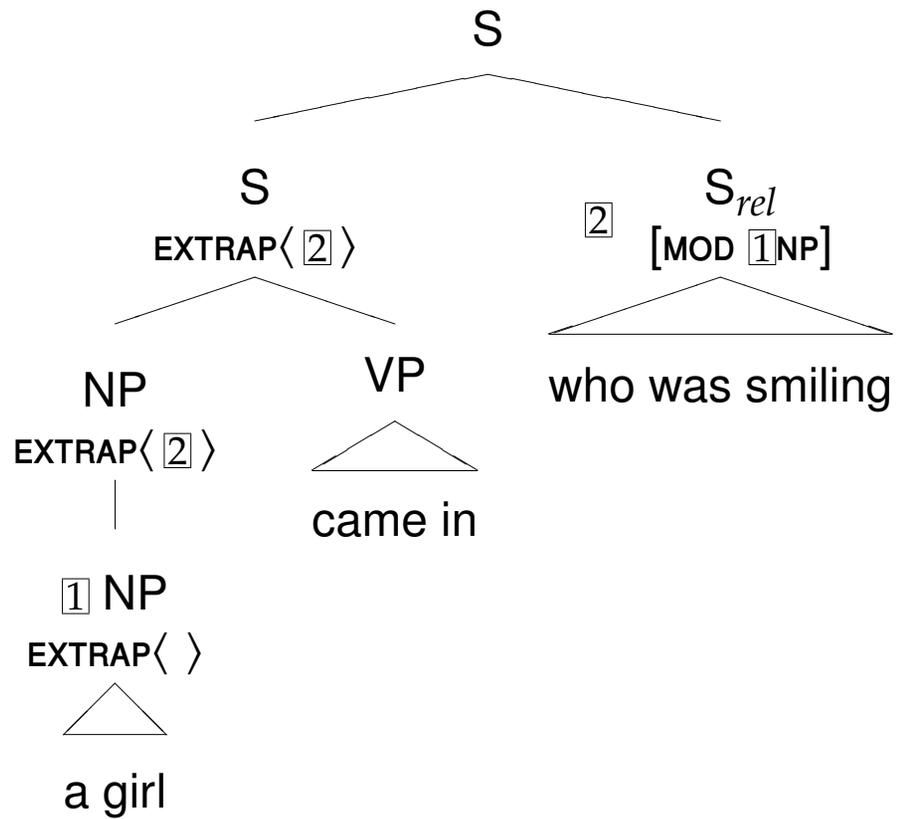
- The relative clause is a dependent of the superlative (cf. the negative polarity item *ever*)

- *that has ever been scored at Wembley* is in the semantic scope of the superlative *most* — it is presumably an extraposed dependent of *most*:

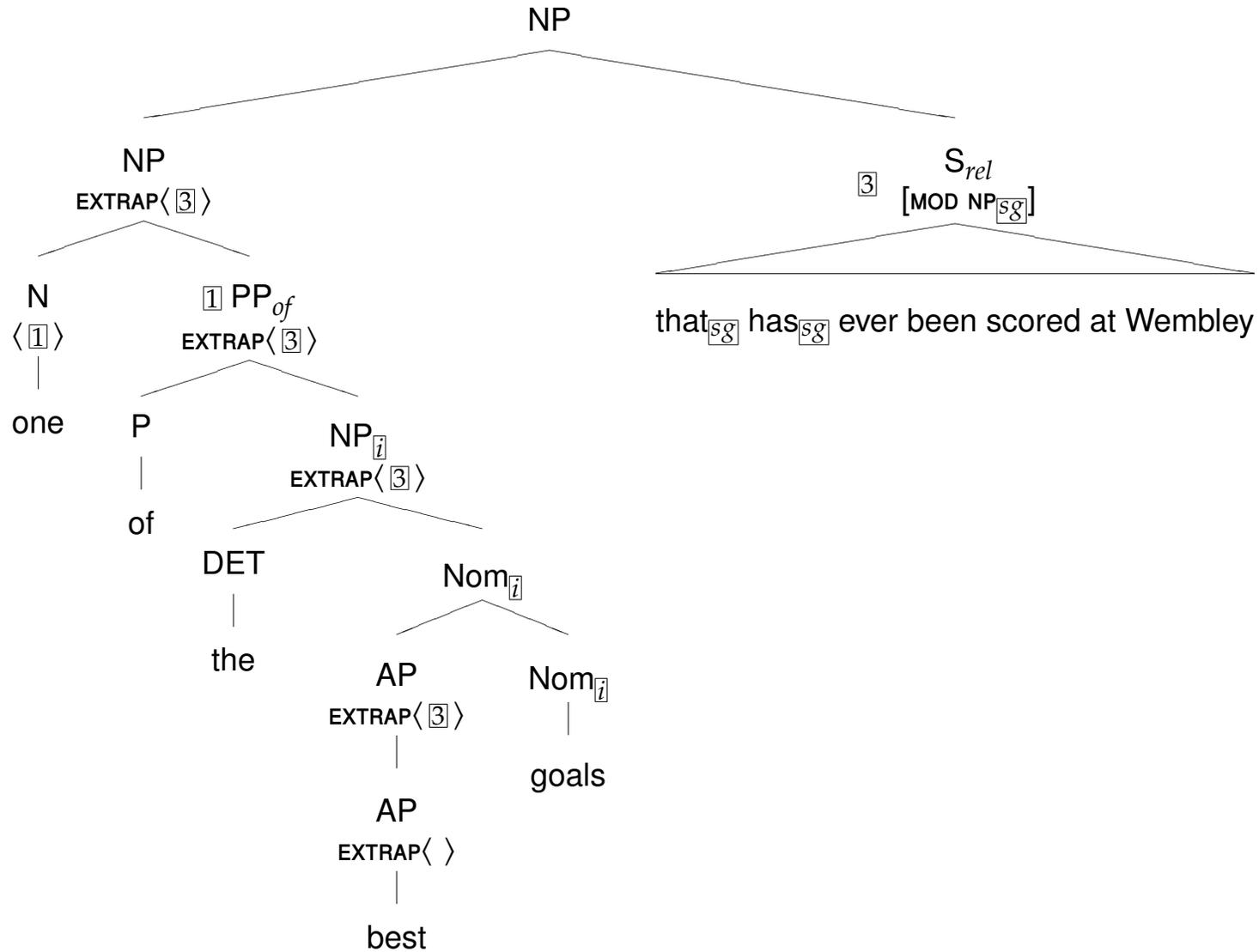
- (56) a. the most [**that has ever been scored at Wembley**] interesting goals ⇒
b. the most ___ interesting goals [**that has ever been scored at Wembley**]

- Kiss (2005) extrapolation is a semantic relation – an extraposed phrase is interpreted ‘downstairs’
- Approaches involving an ‘EXTRAP’ list which is passed around (Pollard and Sag (1994, p386), Keller (1995), Van Eynde (1996), Bouma (1996), Kim and Sag (2005), Kay and Sag (2012), Cysmann (2013)), with variations as to the contents of the list.
- We have to assume a version of the latter involving semantic content.

(57)

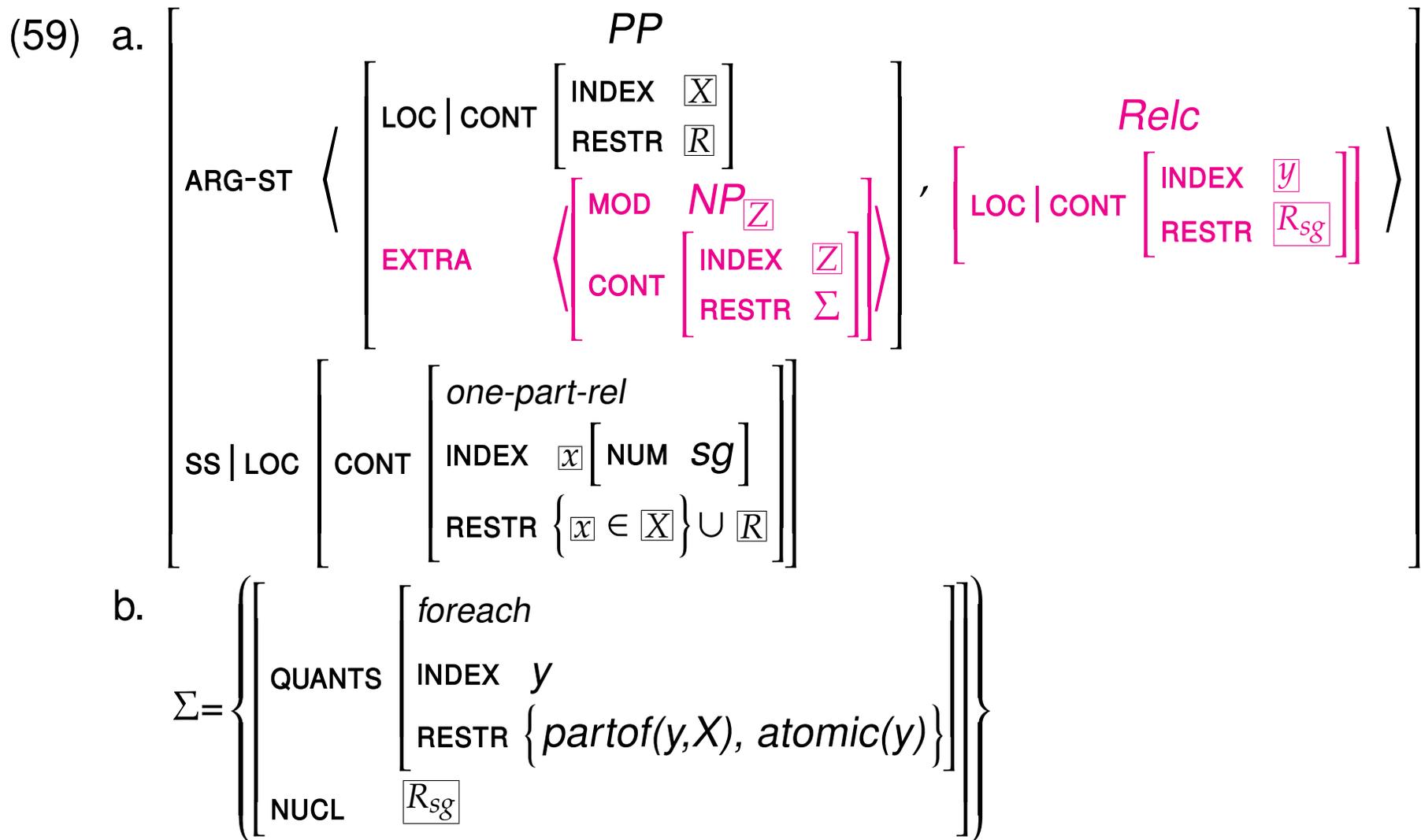


(58)



- To deal with this, we should put the distributive ‘foreach’ content on the EXTRAP list of the PP.

- Drop the relative clause argument of *one*;
- Pass the (distributed) content of the relative clause into the *of*-PP;
- [And stop it percolating higher in the tree (not shown here)].



- Notice that nothing prevents the Relative Clause complement itself being extraposed (predicted, since it is a complement):

- (60) a. I managed to solve one of those problems_{pl} [that_{sg} has_{sg} been annoying me for the last few months] yesterday. ⇒
- b. I managed to solve one of those problems_{pl} ___ yesterday [that_{sg} has_{sg} been annoying me for the last few months]

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4 Problems, Issues

- Optionality? Semantic Equivalence?
- Theoretical point: incompatible with some views of Extraposition. . .
- Not just relative clauses. . .
- Not just *one*. . .
- Collective predicates?

- Is there a semantic or pragmatic difference here?

- (61) a. This is one of those problems which really annoy^s me.
b. This is one of those problems which really annoy me.

- This is incompatible with several view of Extraposition (e.g. [Kiss \(2005\)](#), [Crysmann \(2013\)](#)).

■ Present participle:

(62) Well, the Doc Marten has now been granted official recognition it's *one of the words* [making its debut in the new Shorter Oxford English Dictionary].
(BNC K1Y 3623)

■ Past participle:

(63) This is *one of those medicines* [usually prescribed more for its psychological than its physiological effect].

■ PP (with *with*):

(64) ...just as I was going in *one of those middle-class, middle-aged ladies* [with a smile on her face] was coming out, ... (BNC G1D 415)

- It is clear that partitive *one* allows this construction, both in its ‘base’ form and in at least some variations:

- (65)
- At least one of the problems that annoy_s me has been solved.
 - More than one of the problems that annoy_s me has been solved.
 - Every one of the problems that annoy_s me has been solved.
 - Not one of the problems that annoy_s me has been solved.
 - Not a single one of the problems that annoy_s me has been solved.
 - ?Less than one of the problems that annoy_s me has been solved.
 - ?Fewer than one of the problems that annoy_s me has been solved.

■ But it seems other words allow it:

- (66) a. ... *another* of *those* volcanoes which *was* thought to be extinct until something nasty happened. (BNC ASR 837)
- b. ... *another* of *those* chores which *is* easier to carry out during post-production editing...
- c. ...an individual programme fitted for *each* of *those* who *is* going on. (BNC ASY 1463)

- Introspective judgements are not necessarily very reliable:
- (67) a. It would be possible to add to the system indefinitely until **every one** of the recorded **parameters** that **is** normally displayed on an instrument in the cockpit of an aircraft was reproduced in this way. (BNC)
- b. **every one** of the **parameters**_{*i*} that Δ _{*i*} **is** normally displayed
- (68) a. another of the things that...
b. any of the things that...
c. each of the things that...
d. either of the things that...
e. neither of the things that...
f. one of the things that...
g. which of the things that...
h. whose of the things that...

- The intuition behind this analysis is that, with some kinds of partitive, a singular adjunct can be interpreted distributively over the elements of the plural in the partitive:

(69) one of **those** problems **s** that annoys **s** me

- It should not be possible with *non*-distributive predicates:

(70) a. *She is numerous. (vs. They are numerous.)
b. ??one of those people who **is** so numerous on demonstrations these days

(71) a. *He sleeps in separate beds. (vs. They sleep in separate beds.)
b. ???one of those people who sleep**s** in separate beds

- But these are often not nearly as bad as they should be:

- (72) a. *He meets every week. (vs. They meet every week.)
b. one of those people who meets every week to discuss semantics

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5 Conclusion

- Yet another genuinely weird English structure (but Dutch is similar);
- It has been noticed before, but never examined so closely;
- We have given a formal account;
- It involves a singular relative clause (or similar), that acts as though it were plural;
- You might think this would be easy;
- But in fact, it poses a serious challenge for HPSG apparatus. . .
- . . . and for any approach that takes seriously the need to deal with the morphosyntax *and semantics* of agreement.

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