Complex Passive Constructions in Norwegian[*]

A constraint-based analysis

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About what there is, it says that it is,
and about what there is not, it does not say that it is …

Introduction

What has been called the 'Complex Passive' construction in Norwegian (starting with the works of Engh (1984, 1994), Hellan (1984), Taraldsen (1986), Christensen (1985), and more recently, Nordgård and Johnsen (ms)) is exemplified in (1):

(1)   a.   Jon ble forsøkt skutt
           Jon was attempted shot
           'it was made an attempt to shoot Jon'
    b.   Jon ble lovet forsøkt skutt
           Jon was promised attempted shot
           'it was promised that there would be an attempt to shoot Jon'
    c.   Jon ble påstått lovet forsøkt skutt
           Jon was claimed promised attempted shot
           'it was claimed that it would be/was promised that there would be an attempt to shoot Jon'

These constructions are V V*-sequences ('*' in the Kleene iteration sense, and ignoring the auxiliary), such that for any *pair* of consecutive verbs in the sequence (where we refer to the first verb of the pair as *'First-verb'* and the second as *'Second-verb'*), the VP headed by the Second-verb ('VP$_{Second-verb}$') is a proposition-type complement of First-verb. The First-verb, moreover, is in passive mode, and VP$_{Second-verb}$ has a participial form ending in –*t*, what we call a *p-participle* form (see 1.1).[1] For a full Complex Passive construction, we refer to the first verb as 'V-Initial' and the last verb as 'V-Final', abbreviated 'V$_I$' and 'V$_F$', respectively. In these terms, (1c) has *påstått* as V$_I$ and *skutt* as V$_F$, and the sub-sequences *påstått lovet, lovet forsøkt* and *forsøkt skutt* as its First-verb – Second-verb pairs, illustrated in (2).

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[1] The latter property distinguishes the construction from what is often referred to as 'Complex Passives' in German, where the complement VP is necessarily infinitival.
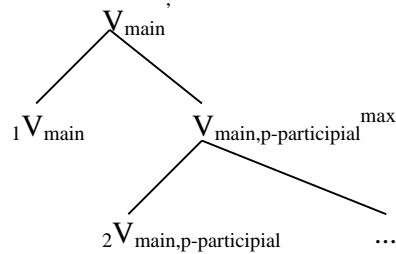
(2)

$$\text{Jon ble påstått lovet forsøkt skutt}$$
$$\text{V}_I \qquad\qquad\qquad \text{V}_F$$
Jon was claimed promised attempted shot
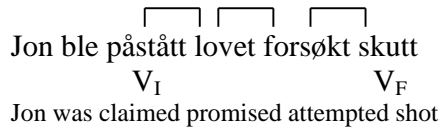
The gist of the construction is that, for each pair, the subject of First-verb is what *would have been* the subject of VP$_{\text{Second-verb}}$, if this VP had been the constituting VP of a clause by itself; as a result, in the full sequence, the subject of V$_I$ is whatever *would have been* the subject of V$_F$. The construction may thus be seen as a form of 'macro' *subject-to-subject-raising'* constellation.[2]

Our goal in this paper is to show how essential properties of the Complex Passive construction in Norwegian can be given a concise and modularized account, adopting the 'constraint-based' perspectives and apparatus developed in HPSG. Keeping this as a short and relatively informal paper, we will introduce only a minimum of technical apparatus (but with pointers to more precise presentations of the framework), and highlight what we see as the general architecture of an HPSG-type constraint-based approach to the phenomena.[3]

We will show that a range of properties exhibited by the Complex Passive construction – to be surveyed in section 1 – follow from quite general principles of Norwegian (or wider domains) grammar, given the partial analysis in (3) of each First-verb – VP$_{\text{Second-verb}}$ pair:

(3)

$$\text{V}_{\text{main}}{}'$$
$$_1\text{V}_{\text{main}} \qquad \text{V}_{\text{main,p-participial}}{}^{\text{max}}$$
$$_2\text{V}_{\text{main,p-participial}} \qquad \dots$$

These principles, and the way in which an account based on the concept of 'falling under a more general principle', is naturally stateable in an HPSG format, are presented in section 2.
With the same theoretical anchoring, section 3 elucidates the exact way in which the grammar of Norwegian can be said to 'have' the Complex Passive construction type, drawing on the notion of a type inheritance lexical hierarchy.

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[2] It will be noted that although the auxiliary *bli* also may be seen as partaking in the 'raising chain', it is not counted among the member verbs of the Complex Passive, these being uniformly 'main' verbs.

[3] Even if the totally 'surface'-respecting syntax would be a common starting point for this analysis and one cast within LFG, since our analysis will depend crucially on the notions of types and type hierarchies, it is not obvious how aspects of it may carry over to LFG.

1. Properties of Complex Passives
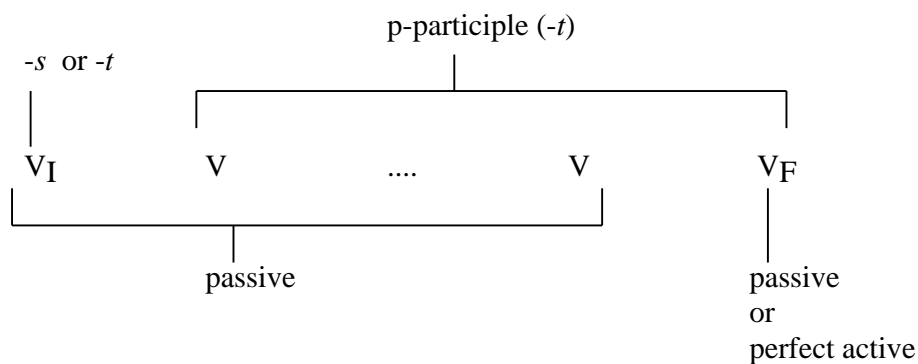
1.1. Morphological patterns
Passives are formed in Norwegian with two distinct morphological patterns. In one, *-s* is suffixed to the infinitival stem of the main verb, and the pattern is called the *s-passive*. In the other, the main verb has a participial form with *–t*, called the *passive participle*, and is preceded by the lexeme *bli* ('become'), the whole construct being referred to as the *bli-passive* (or 'periphrastic passive'). With regard to the formal composition of the Complex Passive construction, for V_I, either of the two passive verb forms in Norwegian can be used: thus, for instance, *-t* is used on the first verb form in (1), *-s* in (4):

(4)   a.   Jon fryktes omkommet
                Jon is-feared perished
                'it is feared that Jon has perished'
        b.   Jon påstås fryktet omkommet
                Jon is-claimed feared perished
                'it is claimed that it is feared that Jon has perished'

For any verb later in the sequence, only the form with *–t* can be used. This morphological shape in general carries either the passive morpheme function or the active perfect participle function; as a label for the form unspecified as to which of these functions it carries, we use the term *p-participle* (a label used in (3)). All the verb forms except the first are thus p-participle. Counting from the last verb, in turn, for the last form, its p-participle form allows either of the morphological interpretations (active perfect participle, or passive), whereas for all the preceding forms, only the passive interpretation is possible. In (4), thus, the participial final verb form *omkommet* is an active perfect participle, while in (1), the participial final verb form *skutt* is a passive participle. The following chart summarizes these form – function correspondences:

(5)

Form: p-participle (*-t*)
                -s or *-t*

                V_I V   ....   V V_F

                          passive   passive
Function: or
                                              perfect active

1.2. The 'Subject-to-Subject-Raising' pattern
As stated initially, the gist of the construction is that for any pair, the subject of First-verb is what *would have been* the subject of $VP_{Second-verb}$, so that, in the full sequence, the subject of V_I is

whatever *would have been* the subject of V$_F$. (1)/(4) above illustrate this pattern for *full* 'would be'-subjects of the last verb, and (6) illustrates it for *expletive* 'would be'-subjects of the final verb; the 'would be'-constellation of the final verb in (6) is thus a *presentational* construction, namely *det (ble) skutt tre løver* ('there were shot three lions'):

(6) a. Det ble forsøkt skutt tre løver
    it was attempted shot three lions
    'it was made an attempt to shoot Jthree lions'
  b. Det ble lovet forsøkt skutt tre løver
    it was promised attempted shot three lions
    'it was promised that there would be an attempt to shoot three lions'

Showing this point more generally, the examples (7)-(9) below show how the active (a)-sentence in each group can be converted into a (normal) passive variant, and (10) illustrate how the full range of 'local passive' subjects of the preceding examples are eligible as subjects also of the Initial verb in a Complex Passive:

(7) a. Jon overlot Marit et stort ansvar
    Jon 'gave'   Marit a big responsibility
  b. Det ble overlatt Marit et stort ansvar   (presentational)
    there was given Marit   a big responsibility
  c. Marit ble overlatt et stort ansvar   ('promotion' of IO)
    Mary was given   a big responsibility
  d. Et stort ansvar ble overlatt Marit   ('promotion' of DO)
    a big responsibility was given Marit

(8) a. Jon snakket om Marit
    Jon talked about Marit
  b. Marit ble snakket om   ('promotion' of prepositional object)
    Marit was talked about

(9) a. Vi skiftet bleier på barna
    we changed napkins on the children
  b. Barna ble skiftet bleier på   ('promotion' of prepositional object
    the children were changed napkins on in a transitive clause)

(10) a. Det ble lovet forsøkt overlatt Marit et stort ansvar
    it was promised attempted given Marit   a big responsibility
    'it was promised that there would be an attempt to give Marit   a big responsibility '

  b. Marit ble lovet forsøkt overlatt et stort ansvar
    Marit was promised attempted given a big responsibility
    'it was promised that there would be an attempt to give Marit   a big responsibility '

  c. Et stort ansvar ble lovet forsøkt overlatt Marit
    a big responsibility was promised attempted given Marit
    'it was promised that there would be an attempt to give Marit a big responsibility '

    d.   Marit ble lovet forsøkt snakket om
            Marit was promised attempted talked about
            'it was promised that there would be an attempt to talk about Marit'

    e.   Barna ble lovet forsøkt skiftet bleier på
            the children were promised attempted changed napkins on
            'it was promised that there would be an attempt to change napkins on the children'

That the promoted item is indeed to be associated only with *subject* status relative to the embedded verb, and not *object* status of the matrix verb (and hence not as – using transformational terminology – having undergone 'subject-to-object-raising'), is confirmed by the following array of examples, where in the (b) cases, the 'raised' item occurring as object is illicit:

(11)   a.   Jon antas/   fryktes/ loves/   påstås   drept
                Jon is-assumed/ is-feared/is-promised /is-asserted killed
       b.   Vi *antok/   ??fryktet/   ?*lovet/   *påstod   Jon drept
                we assumed/   feared/   promised/   asserted   Jon killed

1.3. Possible interveners between the verbs
The uninterruptability of the verb sequence is illustrated by the illformedness of (12): as first noted by Engh (1984), a verb which takes clausal complements mediated by a preposition, is not eligible as First-verb:

(12)   a.   Vi advarte mot å forfremme Jon
                we warned against to promote Jon
                'we warned against promoting Jon'
       b.   *Jon ble advart mot forfremmet
                Jon was warned against promoted

Also, no NP can 'stop halfway', once it has been selected as promovee (cf. (13), and compare with (10a)):

(13)   * Det ble lovet *Marit* forsøkt overlatt et stort ansvar
             * Det ble lovet forsøkt *Marit* overlatt et stort ansvar

This is not to say that simply any material intervening between First Verb and Second-Verb is excluded: for ditransitive verbs of the eligible type, it seems possible to express the indirect object:

(14)   a.   De forespeilte oss at Jon ville bli forfremmet
                they 'make-expect'ed   us that Jon would be promoted
                'they gave us reason to believe that Jon would be promoted'
       b.   Jon ble forespeilt oss forfremmet
       c.   De lovet oss at Jon ville bli forfremmet
                they promised us that Jon would be promoted
       d.   Jon ble lovet oss forfremmet
                Jon was promised us promoted

The constraint operating in (12) thus seems to be against *predicators* or *argument-taking items* intervening between the two verbs, whereas *arguments* belonging to First-verb are allowed.

That intervening argument NPs can enter the construction as shown in (14), does not mean that they can replace the subject of the final verb in the function as the item 'raised' – in (15), thus, the only possible construal of *Jon* is as the 'patient' of *forfremmet*; it can not be read as the recipient of *love* ('promise'):

(15)   Jon ble lovet forfremmet
        Jon was promised promoted
        'it was promised that Jon would be promoted'

1.4. Non-agentivity of the participial VP
A further constraint to be noted is that although the final participial form can have an active interpretation, not all active participial verb forms can occur in this position; this is illustrated in (16):

(16)   a.   *Jon fryktes lest boken
                Jon is-feared read(act) the book
                'it is feared that Jon has read the book'

        b.   *Jon fryktes mottatt gaven
                Jon is-feared received the gift
                'it is feared that Jon has received the gift'

The class of permissible active participial verb forms here seems to be essentially the class that can occur as pre-nominal modifiers, a parallel illustrated in (17):

(17)   a.   *Jon ble fryktet løpt
                Jon was feared run
                'it was feared that Jon had run'
        b.   Jon ble fryktet løpt bort
                Jon was feared run away
                'it was feared that Jon had run away'
        c.   *en løpt hare
                a run hare
                'a hare that has run'
        d.   en bortløpt hare
                an away-run hare
                'a hare that has run away'

What is excluded from this class seems to be agentive verbs, with exception for agentive intransitive verbs occurring with a directional predicate, as illustrated in (17b,d).

1.5. Infinitival complements
With regard to the constraint mentioned in 1.4, the Complex Passive contrasts with passives with an infinitival complement – (18) are grammatical, in contrast to (16) and (17a,c):

(18)   a.   Jon fryktes å ha lest boken
              Jon is-feared to have read the book
              'it is feared that Jon has read the book'
       b.   Jon fryktes å ha mottatt gaven
              Jon is-feared to have received the gift
              'it is feared that Jon has received the gift'
       c.   Jon fryktes å ha løpt
              Jon is-feared to have run
              'it is feared that Jon has run'

A further contrast between the Complex Passive and passives with an infinitival complement emerges with 'subject control' verbs like *love* ('promise') and *forsøke* ('try'). As shown in (1), (4) and (15), the passive forms of these verbs can occur as First-verb in a Complex Passive; however, if the complement of these forms is an infinitive, the result is either illformed, as in (19a), or has a different meaning, as in (19b):

(19)   a.   *Jon ble forsøkt å bli skutt
              Jon   was tried   to be shot
       b.   [*]Jon ble lovet å bli skutt
              Jon was promised to be shot
              1.   '(someone) promised Jon that he (Jon) would be shot'   (OK)
              2.   * 'it was promised that Jon would be shot'   (ungrammatical)

As the translations of (19b) indicate, if *Jon* is construed as 'indirect object' (translation 1), the sentence is possible (although not elegant), whereas if *Jon* is construed as a 'subject-to-subject' raised item, on the pattern of the Complex Passives (translation 2), then the sentence is illformed. Such a construal being the only one available in (19a), this sentence is unambiguously ungrammatical.

1.6. Further on control
As is well known, the pattern of the admissible construal of (19b) is the only 'escape hatch' that subject control verbs have from the so-called 'Visser's generalization', to the effect that only object control verbs allow passivization. The general validity of Visser's generalization for Norwegian is illustrated in (20), where *ytre seg* (literally, 'utter oneself', i.e., express one's opinion) is an 'obligatory reflexive' verb, necessarily agreeing with the local subject, or, in an infinitive, the controller of the infinitive:

(20)   a.   Jon lovet meg å ytre seg
              Jon promised me to 'utter' himself
       b.   *Jeg ble lovet (av Jon) å ytre seg
              I was promised by Jon to 'utter' himself
       c.   *Jon lovet meg å ytre meg
              Jon promised me to 'utter' himself
       d.   *Jeg ble lovet (av Jon) å ytre meg
              I was promised by Jon to 'utter' myself

     e.   Jon anmodet meg om å ytre meg
              Jon asked me to 'utter' myself
     f.   Jeg ble anmodet (av Jon) om å ytre meg
              I was asked (by Jon) to 'utter' myself

As has been standardly noted, however, a control relation like the (unsuccessful) one in (20b) can be turned into a successful one if the understood subject of the infinitival clause is construed as a semantically 'subjacent' participant relative to the content of that clause: thus, both of (21a,b) are possible, the embedded infinitive in both cases expressing a permission of some kind to its (understood) subject. The availability of this construal is correlated with the circumstance that in an active counterpart of these constructions, one will find 'object control' ((21c)):

(21)   a.   Jeg ble lovet (av Jon) å få ytre meg
               I was promised by Jon to be-allowed-to 'utter' myself
      b.   Jeg ble lovet (av Jon) å bli omtalt
               I was promised by Jon to be talked about
      c.   Jon lovet meg å få ytre meg/ å bli omtalt
               Jon promised me to be-allowed-to 'utter' myself/ be mentioned

Clearly, it is only when *love* takes an infinitival complement that the control constraints mentioned are 'activated'. Crucially, in (15), repeated,

(15)   Jon ble lovet forfremmet
        Jon was promised promoted
        'it was promised that Jon would be promoted'

there is no control relation – the agent of *forfremmet* ('promoted') need not be identical to the agent of *love* ('promise').[4]

We will take this as a fact: control constraints obtain between a matrix verb and an embedded verb *only when the latter has as its extended projection an infinitival construction* - i.e., when the verb is itself infinitival in form, or is preceded by one or more auxiliaries, the first of which is infinitival.[5]

We will refer to this configuration, where a verb has itself infinitival form, or has as its extended projection an infinitival construction, as an *infinitival maximization of the verb*.
The next section ties the factor of infinitival maximization to the property mentioned in 1.4.

2. The 'non-agentivity' constraint, and other constraints on Complex Passives

We propose that what rules out (16) and (17a), repeated from 1.4,

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[4] Confirming this point, the choice of First Verb does not in general depend on control properties of the verb: both obligatory control verbs, such as *forsøke* 'try' and *be* 'ask' (version without preposition), optionol control verbs, such as *love* 'promise', and no-control verbs, such as *anta* 'assume', can be used; see below.

[5] This use of the notion 'extended projection' seems compatible with its use in the works of van Riemsdijk (e.g., van Riemsdijk (1998)); at this point, we will not go into details of its definition.

(16) a.   *Jon fryktes lest boken
            Jon is-feared read(act) the book
            'it is feared that Jon has read the book'
      b.   *Jon fryktes mottatt gaven
            Jon is-feared received the gift
            'it is feared that Jon has received the gift'
(17) a.   *Jon ble fryktet løpt
            Jon was feared run
            'it was feared that Jon had run'

is a general feature of participial VPs, namely *the inability to profile agentivity*. We now explain this notion.

In general, one can distinguish between situation types, as expressed by VPs, according to whether

(22)
(i)   an agent co-occurs with a patient, affected by the agent;
(ii)   an agent occurs as the sole argument;
(iii)   an agent co-occurs with a directional specification, indicating the 'end point' of a process, or more generally, some kind of telicity marking;
(iv)   there is no agent;
(v)   there is an agent, but it is syntactically demoted (e.g., by passive morphology), so as not to be expressible as a subject.

In cases (i) and (ii) we will say that the semantics of the VP, paired with canonical linking between semantics and syntactic functions, projects an ***agentive*** *profile*, whereas in the other cases, the projected profile is ***non-agentive***.

Clearly, in, e.g., (16), repeated as (16') with boldface marking,

(16') a.   *Jon fryktes **lest boken**
            Jon is-feared read(act) the book
            'it is feared that Jon has read the book'
      b.   *Jon fryktes **mottatt gaven**
            Jon is-feared received the gift
            'it is feared that Jon has received the gift'

the profile projected by the boldface marked VP is *agentive* (both falling under case (i) in (22). Our proposal is that the p-participial form of these VPs makes them intrinsically unable to project the profile they would otherwise have to project, namely, an agentive profile, a situation resulting in ungrammaticality.

By itself, this is too restrictive, since when embedded as part of an extended projection under a finite or infinitive verb form, such VPs (in boldface) are fully acceptable:

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(23) a. Jon har **lest boken**
         Jon has read the book
      b. Jon fryktes å ha **lest boken**
         Jon is feared to have read the book

The general constraint is rather the following, where by *finitival*, we mean *'finite* or *infinitival'*, and 'maximized' is used as above, so that a a *finitival maximization of the verb* is where the verb has itself finite or infinitival form, or has as its extended projection a finite or infinitival construction:[6,7]

(24) A VP can express an agentive profile only when it is finitivally maximized.

Given that the VP$_{Second-verb}$ of any First-verb in a Complex Passive is a maximal projection, and thus *not* having the First-verb in its extended projection, it follows that such a VP is never finitivally maximized, since its maximal node is of type `p-participial`. The VP$_{Second-verb}$ of a First-verb in a Complex Passive construction is thus principally prevented from expressing an agentive profile; the illformedness of (16)/(17a) will be seen to follow from this.

Given that a similar maximal status obtains for prenominal participial VPs, the contrast between (17c) and (17d), repeated, will follow by the same token:[8]

(17) c. *en løpt hare
         a run hare
         'a hare that has run'
      d. en bortløpt hare
         an away-run hare
         'a hare that has run away'

This constraint can be formally cast within a framework like HPSG, where we will use a formalism which states what is possible, and what is not, through a set of *'positive' templates*:[9] every structure which is grammatical, is licensed through one, or a set of, templates, whereas for ungrammatical structures, there is no template, or set of templates, accepting them. In an implementation of (24) in this design, there will thus be a template licensing an *agentive* profile where the verbal construction expressing it, is *finitivally maximized*, and there will be no template licensing an agentive profile with any other type of verbal expression.[10] As an informal illustration of the licensing template, it can be represented as in (25), where the type label (outside the bracket located underneath 'V^{max}') names a linguistic object, the relevant feature-

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[6] In terms of types, thus, 'finitival' is a super-type of 'finite' and 'infinitival'.

[7] A related observation on related phenomena, phrased in terms of 'blocking' and 'de-blocking' of a theta-role, is made in Haider and Rindler-Schjerve (1987).

[8] Cf. Zaenen (1993), p. 140, for relevant discussion concerning Dutch and English.

[9] The design here follows, e.g., Pollard and Sag (1994), Sag and Wasow (1999), and Copestake (2000).

[10] Recalling that this design is in the class of 'constraint based' formalisms, the 'constraining' is here, thus, not done by a single 'rule', but through the entire set of templates in the grammar – one template positively accepting a given structure, and none of the other templates providing any alternative licensing route for any of the feature combinations in question.

specification of which is given inside the bracket, and 'V^{max}' means an extended projection of V$_{main}$:[11]

(25)

$$\text{V}^{max}$$

$$\text{agt} - \text{finitiv} \begin{bmatrix} \text{V-FORM finitival} \\ \\ \text{PROFILE agentive} \end{bmatrix}$$

By assumption, the PROFILE value of the 'main' verb is accessible 'up' throughout the whole extended projection of the VP, and what (25) says is that the profile *agentive* gets licensed only by the time one reaches a finite or infinitival top of this extended projection.

For the profile-type *non-agentive*, the realization is not similarly restricted; that is, the licensing template for this profile will pair the profile *non-agentive* with simply any type of verbal expression, including participial maximal V-projections. It is illustrated in (26), where '[V]' means 'verb or verbal projection, basic or extended':

(26)
$$[\text{V}]$$
$$\text{non} - \text{agt}[\text{PROFILE non} - \text{agentive}]$$

Given these templates as the licensing devices relative to the profiling of agentivity, the restrictedness of *Complex Passives* with respect to agentivity in the complement VP is captured through a template, part of the specification of which will be (27), where the type *p-participial* is incompatible with *finitival*:

(27)

$$\text{V}'$$

$$\text{V} \qquad \text{V}^{max}$$
$$\text{p} - \text{part}[\text{V - FORM p - participle}]$$

The daughter V^{max} node here being the maximal (extended) projection of the complement verb, the exclusion of an agentive profile of the complement of Complex Passives is now accommodated through the mere statement of the morpho-syntactic shape of the construction, the V^{max} of this construction being one which is *not* subsumed by the type of structures defined in (25) as realizing the profile *agentive*.

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[11] While this general format, as well as the attribute V-FORM, are currently used in HPSG, the attribute PROFILE has not been introduced in the HPSG literature so far. Technically, its value will be restricted to be a combination of a content and a syntactic realization pattern, where co-indexing keeps track of which roles end up with which grammatical function. The special profile type *agentive* is defined as having a content corresponding to (22i,ii), and a syntactic valence specification where the 'agent' corresponds to 'subject'. We will not spell out any details of these specifications here - cf. Hellan (in progress) for proposals.

There are obviously also more principal aspects of this proposed attribute which will require a broader discussion – as it stands, it may seem capable of serving as a locus for much of the semantics – syntax mapping in the grammar. In this respect, the present use of the construct must be seen as just one initial case of motivation for introducing it, but with principal consequences left quite open for the time being.

The same point applies to the lack of control patterns in Complex Passives, noted in 1.6. Assuming that the feature structure expressing coreference between the understood subject of a complement VP and the subject of the matrix verb, [12] can be labeled by the type `control`, the licensing template for control structures will include the specification in (28), which, given the specification in (27) as delimiting Complex Passives (and given, still, the incompatibility between the types `p-participle` and `infinitive`), suffices to rule out the possibility of the configuration (27) as carrying a control interpretation:

(28)
$$V^{'}$$
control

$$V \qquad V^{max}$$
infinitival[V - FORM infinitive]
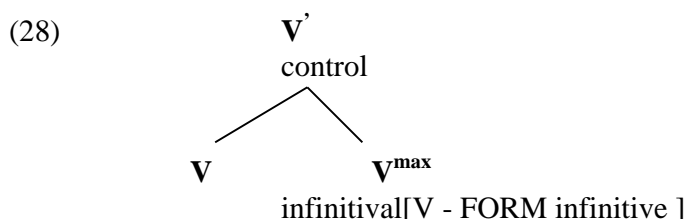
Such an account, of course, by no means *explains* why control structures are restricted in this way, but it organizes the facts in a modular way, keeping the description of Complex Passives still down to a morpho-syntactic minimum.

In order to accommodate the subject-to-subject-raising pattern demonstrated in 1.2, a further specification is needed, in essence saying that the understood subject of the complement VP is *identical*, or, in HPSG terms, *structure-shared*, with the subject of the matrix VP (see, e.g., Pollard and Sag (1994), section 3.5, for a format in which this can be expressed[13]). A feature structure with this property can be given the type label `subj-subj-rais`, specifying the matrix V-projection.

Specifications are also needed to represent the constellation of form-function correspondences summarized in (5): to do this, we need to say that the matrix verb has a *passive* morphology (be it with –s or with –t), and that the complement VP (as already anticipated) has the p-participle form, allowing for either the passive or an active perfect interpretation. If the head of this VP at the same time is First-verb in a further link of a Complex Passives sequence, this will enforce the passive interpretation of its morphology; and conversely, if the matrix verb is at the same time head of a complement VP in a preceding link in a sequence, then this enforces the form –t of its passive morphology.

The morphological specification 'passive' is of course correlated with certain 'alterations' in the argument structure of the verb, compared to its active form. As shown in 1.2, the 'promotional' possibilities in Norwegian are many, and given in addition the possibility of having an expletive subject, no matter what otherwise the valency of the passive structure is, this gives strong

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[12] Cf. Pollard and Sag (1994), section 3.5 (with certain qualifications as expressed in footnote 13 below, except that in the present case, expletives are excluded from the domain).
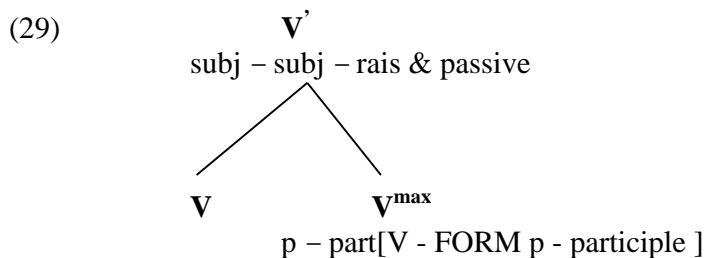
[13] While more recent versions of HPSG may differ from the -94 analysis in terms of the constructs chosen for structure sharing (e.g., items as value of SUBJ, or items in the ARG-ST list, as opposed to items on the SUBCAT list), which of these contructs is chosen is not critical to the present proposal – all that has to be secured, is that *expletives* are among the 'raisable' items (cf. (6 and subsequent examples), and whatever the theory takes in order for an expletive to be represented as a *subject*, it can then also apply to the representation of it as 'raisable'.

empirical motivation for keeping the 'agent-demotion' part of the passive separate from the 'promotional' aspects, and, moreover, have the morphological form (be it with –s or with –t) linked only to the 'agent-demotion' aspect.[14]

Although for the final verb, its argument structure may contain many candidates (apart from an expletive) for promotion to subject, from the viewpoint of an analysis of the Complex Passive, it does not matter which one is chosen – its subsequent 'raising' behavior will apply, no matter what its status would have been in an active counterpart of this final verb. Given merely an unambiguous representation of subject-hood of a verb, be it active or passive, and given moreover that, in a constellation like (27), the choice of subject of the complement VP is accessible to the valence specification of the matrix verb, nothing further needs to be stated concerning the factor 'passive' as such in the present connection.

For this outline of the Complex Passive, we will thus introduce a type *passive*, which reflects the morphological factors involved (through the V-FORM value *pass-morph*, which has –t and –s as its subtypes), together with the 'demotion' of an agent/'external argument'. For all verbs but the final one, the 'promotional' aspects are represented through the type *subj-subj-rais*, and as for the final verb, the analysis will just leave unspecified how its subject was 'selected'.

Putting these considerations together, an amended version of (27) will have the form in (29):

(29)

$$\text{V}'$$
$$\text{subj} - \text{subj} - \text{rais} \ \& \ \text{passive}$$

$$\text{V} \qquad \text{V}^{\text{max}}$$
$$\text{p} - \text{part[V - FORM p - participle]}$$

This structure, interpreted as a template, states enough of the properties of the Complex Passive to be counted as a template of the Complex Passive.

The constellation, through the immediate dominance relation between the matrix V' node and the VP node, rules out the existence of intermediate governors, like prepositions. Through the required structure sharing of subjects, it rules out 'halted' interveners, as illustrated in (13), and given that the head V in (29) is taken as what projects to the mother V', the existence of possible NP complements of this V is not excluded by (29). In this way, also the data under 1.3 are accounted for, completing the account of the phenomena surveyed in section 1.[15]

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[14] A detailed analysis of these factors is presented in Hellan (in progress). Alternative views are presented in Nordgård and Johnsen; considerations of space preclude any discussion of the differences here.

[15] Notice that something about which (29) is silent, is exactly how the 'raised' subject is materialized syntactically. In a tensed clause, it will be as an overt subject, with the –s passive serving as a present tense form, or otherwise with a tensed form of *bli* (or a preceding auxiliary) serving as the tensed verb. In a controlled infinitive (where the –s passive form can serve as the infinitive form, or an infinitival form of *bli* (or a preceding auxiliary), it will be as reference shared with the controller. In a prenominal modifier position, as in (i), where only the p-participle form is

3. The Complex Passive – a lexical construct?

The head-complement structure form of the template in (29) strongly suggests that the template be located in the lexicon, defining a possible *lexical type*. The notion 'Complex Passive', on the other hand, may seem, intuitively, to refer to a type of *construction*. Are these intuitions compatible?

In principle, reference to the notion 'construction' would seem necessary only if the construct in question is phrasal, and has essential components which could not be located in the head verb (such as resultative small clauses as complements to intransitive verbs, or 'free datives' as complements to transitive or intransitive verbs[16]). However, all the factors of relevance here seem stateable in terms of a head-complement structure. This includes the circumstance that even in a 'long distance' raising complex, there is no requirement that the Complex Passive pattern be maximized – it is fully possible for infinitival VPs to intervene, as long as they keep up the 'raising flow'; cf. (30):[17]

(30) a.   Jon påstås å være fryktet omkommet
            Jon is-claimed to be feared perished
            'it is claimed that it is feared that Jon has perished'
      b.   Jon påstås fryktet å være omkommet
            Jon is-claimed feared to be perished
            'it is claimed that it is feared that Jon has perished'

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used (but no amendment of (29) is needed to state the realization of a Complex Passive in this construction), it will be as reference shared with the 'external' argument of the noun:
(i)   en ofte forsøkt skutt bjørn
          an often attempted shot bear

Finally, in a perception-verb small clause construction, the raised item may even (albeit not very elegantly) materialize as an overt object, as in (ii) (here both the infinitival versions and the p-participial version can be used):
(ii)   Jeg har ofte sett ham forsøkt introdusert for direktøren
          I have often seen him attempted introduced for the director
          'I have often seen attempts at introducing him for the director'

In short, the raised subject of a Complex Passive has the same realization possibilities as subjects of all other constructions have.

[16] On the latter, see Beermann (this volume).

[17] When in such a 'mixed' chain the final verb is part of an infinitive, like in (19b), it has the same freedom of being active as in (18), even though it 'raises across' a non-infinitival pair as well – cf. (ii); if the infinitive appears somewhere else, this freedom is again lost – cf. (i):

          i.   *Jon påstås å være fryktet lest boken
                Jon is-claimed to be feared read the book
                'it is claimed that it is feared that Jon has read the book'
          ii.   Jon påstås fryktet å ha lest boken
                Jon is-claimed feared to have read the book
                'it is claimed that it is feared that Jon has read the book'

Our account predicts the contrast, since it is not the 'transmission' as such of the shared argument which is restricted, but the licensing of an agentive profile. *Å ha lest boken* in (ii) provides such a licensing, but not *lest boken* in (i).

This suggests that the head + complement constellation should indeed be the operative module, and that the construction hence can be stated as a lexical type. We first show how this view can be implemented.

The type specification of the matrix V$'$ node in (29), i.e., `subj-subj-rais & passive`, will also apply to the *head* (matrix) verb, and is hence – technically - a possible lexical type. This type, though, does not distinguish between head + complement configurations where the complement is a participial VP, and those where it is an infinitive, like in (18). Since 'daughters'/'sisters' are in principle representable in terms of features, the type `subj-subj-rais & passive` of the matrix verb can be expanded with a type reflecting whether the verbal complement is a participial VP, or an infinitive. Choosing `p-part-vp` vs. `å-infin` as such distinguishing types, the type of the *Complex Passive Verb* will be `subj-subj-rais & passive & p-part-vp` – still seen as a lexical type.

How, then, is the existence of this type encoded in the grammar? Clearly, all verbs which can function as the matrix verb in (29) must somehow 'have' this type. At the same time, all such verbs – e.g., those in (11a), repeated –

 (11)   a.   Jon antas/   fryktes/ loves/   påstås   drept
   Jon is-assumed/ is-feared/is-promised /is-asserted killed

have a number of other possible frames as well – *at* ('that')-clauses (for all of them), (situational) NPs for most of them, plain NPs and controlled infinitives (cf. (19b) and (21)) e.g., for *loves*. Each such frame is represented by a specific type associated with the verb, and a next question is how such a plurality of types can be associated with a given verb. Ignoring simply listing all of them as equal alternatives, the interesting approaches will be (i) to assume a derivational relationship between them, whereby common properties are transferred by rules; and (ii) an inheritance-hierarchical organization, whereby properties common to all the verb frames constitute a common highest supertype, inherited downwards in the hierarchy, via possible 'intermediate' types, down to those representing specific frame types. In a constraint- based approach, the latter alternative seems the most natural; so let us briefly sketch some properties of such a hierarchy (keeping close to designs as suggested in Koenig (1999), Bouma & al. (1999), Davis and Koenig (2000)).

For instance, a verb like *frykte* ('fear') will have a meaning representation which includes (trivially) the following specification:

(31)

$$
\text{partic-prop} \begin{bmatrix} CONTENT \begin{bmatrix} PARTICIPANT\ i \\ \\ PROPOSITION\ j \end{bmatrix} \end{bmatrix}
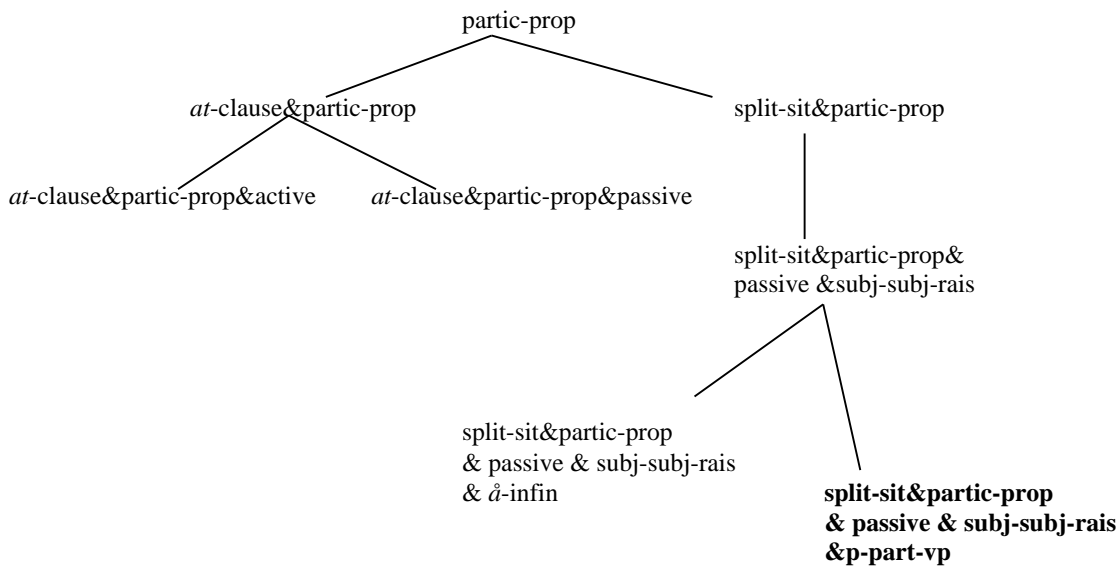$$

Needless to say, the actual meaning specification of this verb will be far richer, and the corresponding type accordingly more complex; but for the sake of exposition, we allow this simplification. With a phonological specification in addition, we then have what we may call a *minimal sign* of *frykte*. Again for expository convenience, we refer to the *type* of this minimal

sign as simply *partic-prop* (as in (31)). Ignoring possible polysemy of this word (which would be represented through the existence of a *set* of minimal signs, however interrelated), this minimal sign will constitute the top node in the type hierarchy constituting the lexical specification of *frykte*. The 'first expansions' in this hierarchy will include types such as those in (32), where the type *split-sit* reflects a profile where the *proposition* argument in (31) is syntactically realized through a (subject) NP and a verbal projection, as separate constituents:

(32)

partic-prop

at-clause&partic-prop   *å*-clause&partic-prop   split-sit&partic-prop
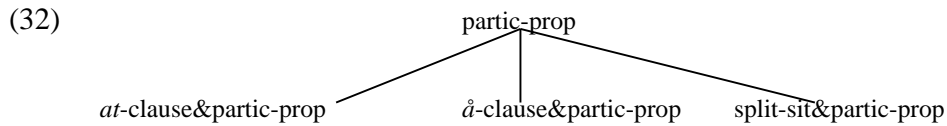
The *at-clause* variant, in turn, allows both active and passive expansions, whereas the *split-sit* option allows only passive. As realizations of the 'predicational' part of the split situation, both an *å*-infinitival phrase and a p-participial VP can be used, indicated in (33) as a further sub-branching; the latter is the Complex Passive type (given in boldface):

 (33)   Partial lexical specification hierarchy for *frykte* ('fear'):

partic-prop

at-clause&partic-prop   split-sit&partic-prop

at-clause&partic-prop&active   *at*-clause&partic-prop&passive

split-sit&partic-prop&
passive &subj-subj-rais

split-sit&partic-prop
& passive & subj-subj-rais
& *å*-infin

**split-sit&partic-prop
& passive & subj-subj-rais
&p-part-vp**

Such a chart provides a formal locus for the representation of possible regularities concerning verb semantics and the capability of being the head of a Complex Passive constellation; the type in (31) obviously has a number of subtypes, only some of which can head such a constellation.

Crucial to our present concerns, however, is that it is by virtue of being introduced in a hierarchical lexical entry like (33), that *instantiations* of the structural object 'the Complex Passive', i.e., the type

split-sit & partic-prop & passive & subj-subj-rais & p-part-vp

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are licensed to occur – i.e., the templates licensing these instantiations are *lexical templates*.

While this settles the issue of where the Complex Passive templates technically belong, the concern about 'constructionality' with which we opened this section, still remains - there still is something 'non-lexical' about the construct. The type part characteristic of the Complex Passive – `passive & subj-subj-rais & p-part-vp` -, is composed from quite general and independently defined super-types, and the type as has a specialization which is not very well motivated by the minimal sign itself (in this sense, it may be called 'peripheral' relative to the hierarchy in which it is situated).

For these reasons, it will seem only half-way correct to say that the Complex Passive construction is 'part of the lexicon'. The grammar of Norwegian simply *has* the construction as a grammatical type, entered in a general type hierarchy (as a 'join' of independently defined types), but *implements* this type only through the lexicon.

Perhaps, to summarize the issue in simple labels, one could call the Complex Passive a '*lexical construction*', as opposed, on the one hand, to a '*syntactic* construction' (being phrasal), and on the other, to a 'lexical *frame*' (understood as '*non*-peripheral' relative to the hierarchy defining a lexical entry). Clearly, this might suggest the beginning of a typology, the development of which would have to wait for another occasion.

4. Conclusion

In a slightly programmatic fashion, we have outlined a modular design for an analysis of Complex Passives in Norwegian, in terms of typed feature structures of the kind used in HPSG. Our modules have been defined partly in terms of constituent structure – in particular the head + complement configuration defining the Complex Passive -, and partly in terms of types and their defining feature structures, such as the type of an 'agentive profile'. With these resources, we have been able to restrict the definition of the Complex Passive construction to a morpho-syntactic minimum, namely that the head (i) have a passive form, (ii) take a 'subject–to–subject-raising' pattern of structure shared subject, and (iii) have a p-participial VP complement. Other properties of the construction, such as its lack of control patterns, and the lack of agentively interpreted VP-complements, will, by this design, follow directly from the former properties. Certain morphological under-specifications in the licensing template, moreover, allow it to cover four different morphological patterns for each V-V pair, and to predict which V-V pair morphological shapes can be found initially and finally in a V-V* Complex Passive.

The 'template' licensing the Complex Passive pattern has been construed as a type, located in the type hierarchy defining the lexical 'entry' for each verb partaking in the construction. Except for representing a head + complement configuration, however, this type is not strongly motivated by the more basic properties of the verbs involved, and thus seems to be both what one would call 'lexical' and 'structural'.

Although the type is not strongly motivated by the basic properties of the verbs involved, a question we have not offered any attention is whether eligibility for the construction is still

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sensitive to semantic factors of the verbs. This is an area where the general design offers adequate expressibility, with the type interlocking between semantics and syntax under the attribute PROFILE. From a principal standpoint of the theory, this feature is at the same time what probably requires most care in its further formal development.

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In a complex sentence, simple sentences (independent clauses) are combined with dependent clauses. Dependent clauses are made up of a subject and a verb and do not make sense without the rest of the sentence. They are dependent on subordinating conjunctions such as because, although, since and when, or relative pronouns such as who, which or that. 'Although she works hard' followed by a full stop is a sentence fragment error. Practice. Combine the following clauses, using a subordinating conjuction, to make three complex sentences. • Trees need water • They can survive for long. periods when their roots are deep underground • He returned to his country • He missed Australia • The main cause of this condition is unknown • More research is needed.