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The place of bevallen (please) in the syntax of Dutch

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Sentences with verbs like 'please', exemplified in Dutch by (1) have interested syntacticians for a long time[1] because although they look at first glance like simple transitive structures, their syntactic properties are actually quite different from canonical examples[2] of transitive constructions like the one given in (2):

(1)   ...   (dat) Jan (sg) die boeken (pl) zijn (pl) bevallen.
       ...   (that) John these books has liked .
       ...   (that) these books John have pleased .

(2)   ...   (dat) Jan Marie heeft gekust.
       ...   (that) John kissed has Mary.

Among the several interesting questions are the following: what are the grammatical functions borne by the nominal constituents in these constructions, how can one account for their non canonical behavior and what is the reason for this behavior. I will try to give an answer to the first two questions for the construction in Dutch, assuming LFG as the general framework for the investigation. These constructions provide a challenge for LFG in that the behavior of the NP dependents of verbs like bevallen is in general characterized as mixed, i.e. each NP exhibits some subject properties but not all. In a theory like RG, this is accounted for by assuming that both NP are subjects but at a different stratun. LFG doesn't allow for several strata and hence in that theory there can be only one subject in a sentence like (1) (a), namely the surface subject. The challenge then is to formulate the generalizations in such a way that the superficial subject properties of the nominal that isn't the subject are accounted for. [For the discussion of the third question, why psychological predicates tend to exhibit this mixed behavior, I will take Kiparsky's taxonomy of psychological predicates as a point of departure.]

1. Surface properties of the arguments of *bevallen*:

On a superficial level the construction exemplified in (1) provides contradictory information about grammatical functions: if we take casemarking and agreement to be indicators of what the grammatical function of an NP is we have to conclude that in sentences like (1) and (3), *die boeken* (these books) and *hij* (he) respectively are the subject because the verb agrees with them and the second one is clearly in the nominative. (Dutch like English has only case marking of pronouns and only the opposition nominative/non-nominative left.) I will call this argument the 'cause argument', following observations made in Pesetsky (1987), Kiparsky (forthcoming) and Kenny (to look up).

(3)   ... dat hij hen is bevallen.
       ... dat he (masc sing) them (dat/acc pl) is pleased.

If one assumes on the other hand that word order is a good indicator of grammatical function, then it seems that at least in certain cases the non nominative argument, which I will call the 'experiencer argument', is the subject: both (4) (a) and (4) (b) are grammatical and not particularly 'marked' embedded clauses:

(4) (a) ...dat Jan de boeken bevielen.
          ...that to-John the books pleased.

     (b) ...dat de boeken hem bevielen.
          ...that the books to-John pleased.

In general we do not find such a discrepancy between word order and casemarking/agreement as test for grammatical functions in Dutch: in a sentence like (5), only the version in which the NP that triggers agreement is also the first one, is completely grammatical:

(5) (a) ...dat Jan de boeken gelezen heeft.
          ...that John the books has read.

     (b) ?* ...dat de boeken Jan gelezen heeft.

In (4) and (5) examples of embedded clauses were given because they have more restrained word order patterns than declarative main clauses: in a declarative main clause there is always the possibility to topicalize a non subject resulting in a word order in which the first nominal is not the subject. Another clause type in which the word order possibilities are more limited are direct questions. Here we find the same ambiguity in *bevallen* constructions, witness (6), but again not with simple transitive verbs (7):

(6) (a) Zijn Jan die boeken bevallen?
          Are John these books pleased?

     (b) Zijn die boeken Jan bevallen?
          Are John these books pleased?

(7) (a) Heeft Jan die boeken gelezen?
          Has John these books read?

     (b) * Heeft die boeken Jan gelezen?
          Has these books John read?

So looking at simple 'coding' properties[3] of subjects does not allow us to decide which NP is the subject in Dutch sentences like (1) and (3). Universal principles don't decide the matter for us either: there are languages in which there are non nominative subjects e.g. Icelandic, (see Zaenen, Maling and Thrainsson (1985) for a summary of the arguments for that language) and there are languages in which word order, even in non topicalization constructions, is determined by other factors than grammatical functions e.g. German (see Uszkoreit (198?) for a detailed discussion of the factors that influence German word order in the 'middle field'). So we will have to look at the behavior of the two nominal arguments of 'bevallen' in more detail to decide upon the grammatical function that the bear.

2. Syntactic properties of arguments of *bevallen*.

a. control:

In Dutch like in all other languages as far as I know, only a subject can be the 'controllee' in an equi construction as is illustrated in (8) and (9):

(8) ...omdat Jan hoopt Marie te kussen.
     ...because John hopes to kiss Mary.

(9)   ...omdat Jan hoopt door Marie gekust te worden.
        ...because John hopes to be kissed by Mary.

(9) shows that 'agentivity' itself is not a prerequisitve for this control although, of course with certain equi-verbs that themselves imply agentivity of their subject it will be required. (10) together with its translation shows that only the cause argument can be the controllee:

(10)   ...omdat Jan hoopt Marie te bevallen.
        ...because John hopes to please Mary.

We get the same results in so-called arbitrary control constructions as shown in (11) through (13): (11) and (12) show that subjects are the controllees in these constructions in general and (13) shows that it is the cause argument that is the controllee in the *bevallen* construction:

(11)   Marie kussen is niet moeilijk.
        To kiss Mary isn't moeilijk.

(12)   Door Marie gekust worden is niet moeilijk.
        To be kissed by Mary isn't difficult.

(13)   Hem bevallen is niet moeilijk.
        To please him isn't difficult.

b. reflexivization:

        In Dutch, as in so many other languages, there seem to be different 'dialects' with respect to reflexivization: I will only discuss the dialect that accepts only subjects as antecedents for reflexives, illustrated in (14) and (15):

(14)   Jan zag zichzelf in de spiegel. (coreference)
        John saw himself in the mirror.

(15)   Jan zag hem(zelf) in de spiegel. (no coreference)
        John saw him in the mirror.

Here again the cause argument can be an antecedent but the experiencer argument cannot. This is illustrated with simple examples in (16) and in (17).

(16)   Het is duidelijk dat hij zichzelf geweldig bevalt.
        It is clear that he pleases himself enormously.

(17) * Het is duidelijk dat hem zichzelf geweldig bevalt.
        It is clear that him pleases himself enormously.

It might be thought that this contrast is due to the fact that the reflexive has no nominative form but (18) and (19) show that this is not a possible explanation: even in oblique positions reflexives controlled by the experiencer argument are not possible:

4

(18)   Het is duidelijk dat Jan die krantenknipsels over zichzelf
         It is clear that John these news clippings about himself

         niet apprecieert.
         doesn't appreciate.

(19) *   Het is duidelijk dat Jan die krantenknipsels over zichzelf niet bevallen .
         It is clear that these news clippings about himself don't please John.

(20) shows that indeed only surface subjects can control reflexives (the agent phrase has been topicalized because in general reflexives are easier to get when the antecedent precedes the reflexive):

(20) *   Door Jan worden die krantenknipsels over zichzelf niet geapprecieerd.
         By John these newsclippings about himself are not appreciated by John.

The following examples show that, in Dutch, surface subjects that are in derivational theories non initial can control reflexives, albeit a bit less felicitously than agentive subjects[4]:

(21) ?   Alleen de kapper wordt door zichzelf geschoren.
         Only the barber is shaven by himself.

(22)   Hij arriveerde met zichzelf als enige bagage.
         He arrived with himslef as only luggage.

(23) ?   Hij werd urenlang over zichzelf ondervraagd.
         He was interrogated for hours about himself.

(24)   Hij wordt gemakkelijk met verhaaltjes over zichzelf geamuseerd.
         He is easily amused with stories about himself

(25)*   Ik amuseerde hem met verhaaltjes over zichzelf.
         I amused him with stories about himself.

c. participles:

         Another rule that seems to pick out subjects is the rule of participle formation illustrated in (26) :

(26)   De het boek apprecierende jongen.
         The the book appreciating boy.

Here cases of non stative passive subjects are not totally felicitous[5] as shown in (27) but cases of 'unaccusative' subjects which would be non-initial under certain analyses are perfectly ok as illustrated in (28) and (29):

(27)   (a)?*   De geslagen wordende jongen.
                 The being hit boy.

         (b)   De geslagen zijnde jongen.
                 The being hit boy.

(28)   De vallende jongen.
         The falling boy.

(29)   De bloedende wonde.
         The bleeding wound.

Again the cause argument behaves like a subject and the experiencer argument doesn't: (31) doesn't have the reading given in the gloss but only the implausible one under which the book is being pleased.

(30)   Het de jongen bevallende boek.
         The the boy pleasing book.

(31)#   De het boek bevallende jongen.
   The the book pleasing boy.

3. Raising and *bevallen*, the apparent problem.

      Given the data in the previous section, there seems little reason to assume that the non nominative argument is the subject: only in a framework in which a VP is assumed and a subject is defined as 'the NP immediately dominated by S', is there any reason to assume that the non nominative might be a subject. There is, however, one set of facts that might lead one to assume that the experiencer argument can be the subject even in a framework where grammatical functions are primitives. This is the interaction between *bevallen* constructions and raising. In a framework like LFG it is assumed that only subject can 'raise'. If we look at subject raising constructions in Dutch, it looks at first blush very much as if both the experiencer argument and the cause argument can be raised as illustrated in (32) and (33). In (32) a simple auxiliary construction is given; in LFG the auxiliaries are in general assumed to be raising verbs but even if this assumption were not made, the problem would remain the same because (33) shows that a more traditional raising verb exhibits the same behavior:

(32)   (a)   Zijn Jan het boeken bevallen?
                 Have John these books pleased?

         (b)   Zijn de boeken Jan bevallen?
                 Have the books pleased John?

(33)   (a)   Schenen Jan de meisjes te bevallen?
                 Seemed John these girls to please?

         (b)   Schenen de meisjes Jan te bevallen?
                 Seemed the girls John to please.

Under transformational accounts of raising, the embedded subject becomes the subject of the matrix verb in the phrase structure representation, whereas the rest of the complement is part of a separate S or VP. For a sentence like (33) (b) there is no problem and we can assume a phrase structure representation as given in (34) (ignoring verb-raising):

(34)
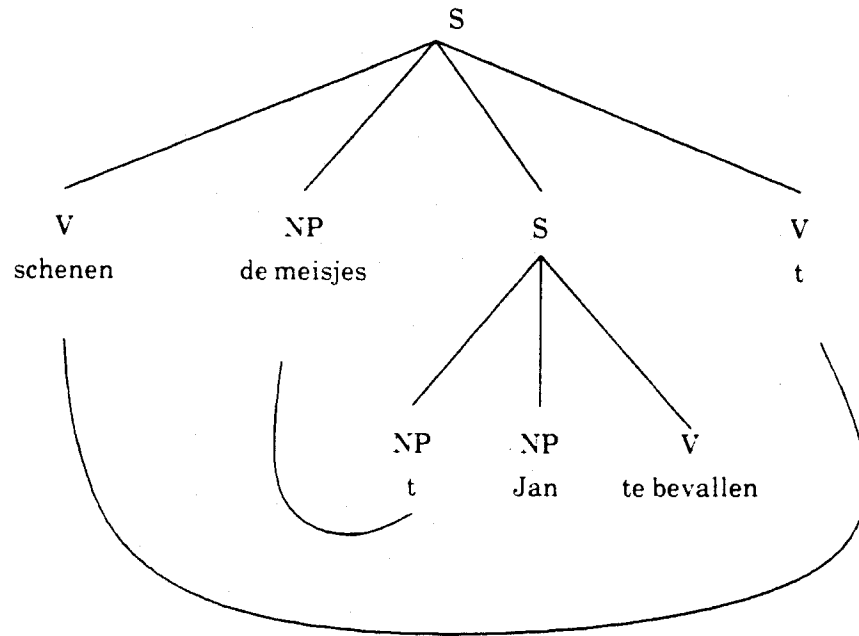
It is difficult to see, however, how (33) (a) could be represented assuming that '*de meisjes*' is the subject in that version too: something like (35) is of course an unacceptable phrase structure under classical transformational assumptions:

(35)
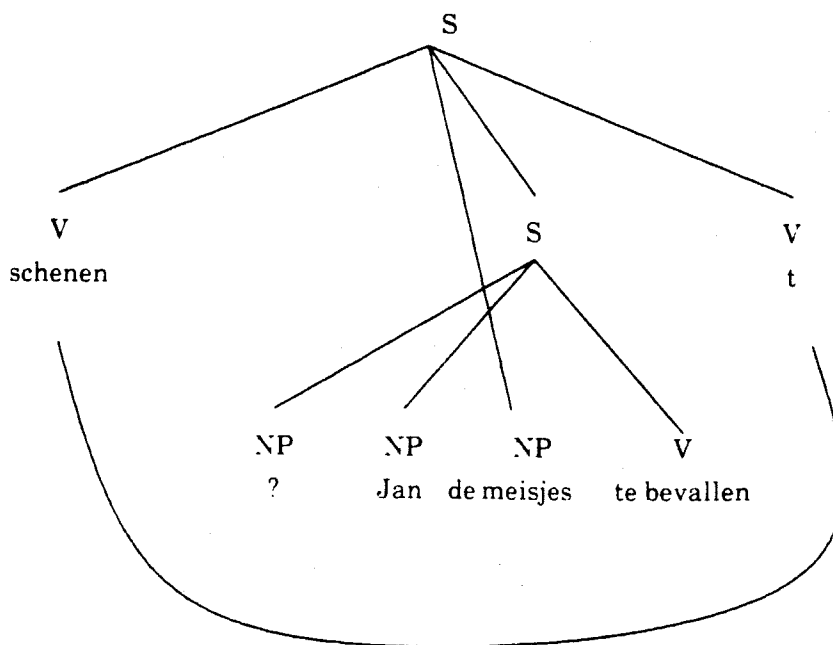
The only way out seems to be the assumption that in spite of all its non subject properties, the experiencer is nevertheless the subject or to assume that an invisible dummy has been raised which is linked in some fashion to the cause-argument. The first alternative is rather unattractive because it forces us to find alternative generalizations for control, reflexivization and participle formation; the second one is more interesting and an LFG version of it will be discussed later. In the next section, however, I first want to look at raising in LFG and show that in fact the dilemma that exists in transformational frameworks does not exist in that theory.

4. Some Phrase Structure Rules for Dutch and Raising in LFG.

For simple embedded sentences, I will assume the the following rules.

(36)   S --> (NP: ($\uparrow$ SUBJ) = $\downarrow$)
             (NP: ($\uparrow$ OBJ2) = $\downarrow$)
             (NP: ($\uparrow$ OBJ) = $\downarrow$)
             V.

They will account for sentences like (37)

(37)   ...(dat) Jan Marie een boek gaf.
        ...(that) John Mary gave a book.

For the XCOMP of infinitival complements we need of course to add a possibility; as there is no clear evidence for a VP in Dutch, we might as well call this embedded constituent an S. So we get the following[6]:

(38)   S --> (NP: ($\uparrow$ SUBJ) = $\downarrow$)
             (NP: ($\uparrow$ OBJ2) = $\downarrow$)
             (NP: ($\uparrow$ OBJ) = $\downarrow$)
             (S: ($\uparrow$ XCOMP) = $\downarrow$)
             V
             (V': ($\uparrow$ XCOMP) = $\downarrow$).

For *schijnen*, seem, we will assume exactly the same lexical entry as for its English counterpart, hence the one given in (39):

(39)   schijnen : PRED 'seem < (↑ XCOMP) > (↑ SUBJ)'
                    (↑ SUBJ) = (↑ XCOMP SUBJ).

This lexical entry states that *schijnen* takes one thematic argument, its XCOMP (infinitival complement) and one non thematic argument, its subject; it also states that *schijnen* is a raising verb by equating its non thematic argument with the subject of the XCOMP (the 'embedded' predicate). It is easy to see that this set of rather uncontroversial assumptions will give the right results in simple cases; let's take a sentence like (40)

(40)   ...dat Jan het boek scheen te lezen.
        ...that John the book seemed to read.

Its c-structure representation will be as given in (41) and the f-structure as given in (42):

(41)
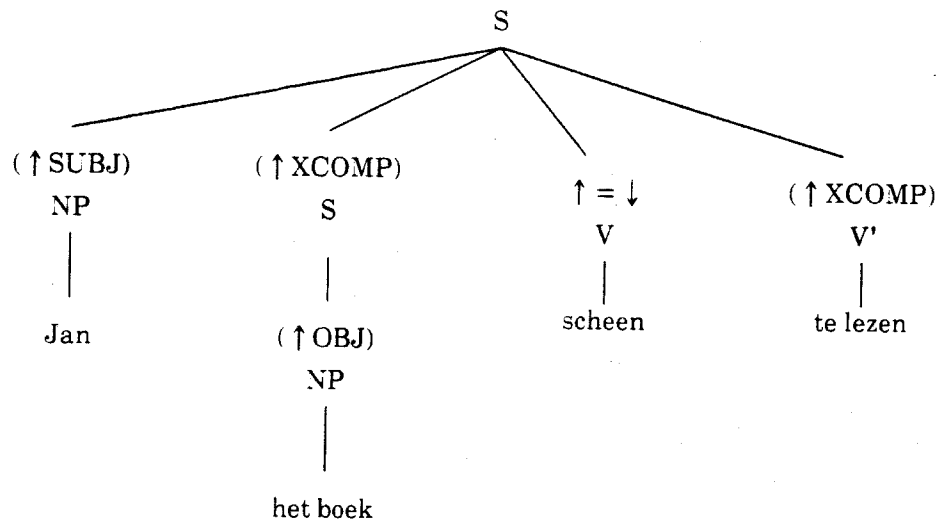
The embedded verb, *lezen* (read), does not appear in the same c-structure constituent as its direct object, *het boe* (the book), but is instead part of the verbal complex. This is due to verb raising, a construction we will not discuss here[7]. The complements precede the verb they depend on. In spite of these c-structure difference between English and Dutch, the Dutch f-structure is completely analogous to the f-structure for the English equivalent sentence:

(42)

$$
65\left[\begin{array}{ll}
\text{PRED} & \text{'SCHIJNEN<[63:LEZEN]>[23:JAN]'} \\
\text{TENSE} & \text{PAST} \\
\text{SUBJ} & 23\left[\begin{array}{ll}
\text{PRED} & \text{'JAN'} \\
\text{CASE} & \text{NOM} \\
\text{DEF} & + \\
\text{NUM} & \text{SING} \\
\text{PERSON} & 3
\end{array}\right] \\
\text{XCOMP} & 63\left[\begin{array}{ll}
\text{PRED} & \text{'LEZEN<[23:JAN],[61:BOEK]>'} \\
\text{CTYPE} & \text{TE} \\
\text{INF} & + \\
\text{SUBJ} & \text{[23:JAN]} \\
\text{OBJ} & 61\left[\begin{array}{ll}
\text{PRED} & \text{'BOEK'} \\
\text{CASE} & \text{NNOM} \\
\text{SPEC} & \text{DE} \\
\text{NUM} & \text{SING} \\
\text{PERSON} & 3
\end{array}\right]
\end{array}\right]
\end{array}\right]
$$
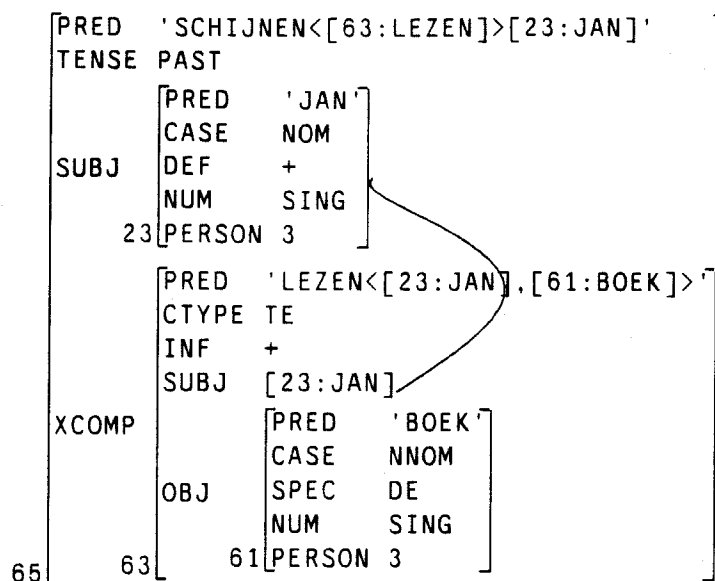
A sentence like (33) (b), or rather the embedded counterpart given in (43) will have exactly the same representation except that we will assume that *Jan* is a 2OBJ [8]. The lexical entry for bevallen is given in (44), the c-structure in (45) and the f-structure in (46):

(43)   ...dat de meisjes Jan schijnen te bevallen
        ...that the girls seem to please John.

(44)   bevallen: PRED 'please<($\uparrow$SUBJ)($\uparrow$OBJ2)>'.

(45)

```
                              S
          ┌───────────┬──────────────┬──────────────┐
     (↑SUBJ)      (↑XCOMP)         ↑=↓          (↑XCOMP)
       NP             S              V              V'
        │             │              │              │
   de meisjes    (↑2OBJ)         schijnen        bevallen
                    NP
                     │
                    Jan
```

(46)

```
┌PRED    'SCHIJNEN<[147:BEVALLEN]>[20:MEISJE]'        ┐
│TENSE  PRESENT                                       │
│       ┌PRED         'MEISJE'          ┐             │
│       │DEF          +                 │             │
│       │CASE         NOM               │             │
│SUBJ   │                    ┌INDEX 1 ┐ │             │
│       │REFPROP             │NUMB  PLU│ │             │
│    20└          217│PERS  3 ┘ ┘             │
│       ┌PRED     'BEVALLEN<[20:MEISJE],[48:JAN]>'┐  │
│       │TENSE  INF                               │  │
│       │SUBJ   [20:MEISJE]                        │  │
│       │       ┌PRED         'JAN'        ┐       │  │
│XCOMP  │       │CASE         NNOM         │       │  │
│       │OBJ2   │                ┌INDEX 2┐ │       │  │
│       │       │REFPROP        │NUMB  SG│ │       │  │
│    57 │    48└          218│PERS  3 ┘ ┘       │  │
│160└  147└                                          ┘
```
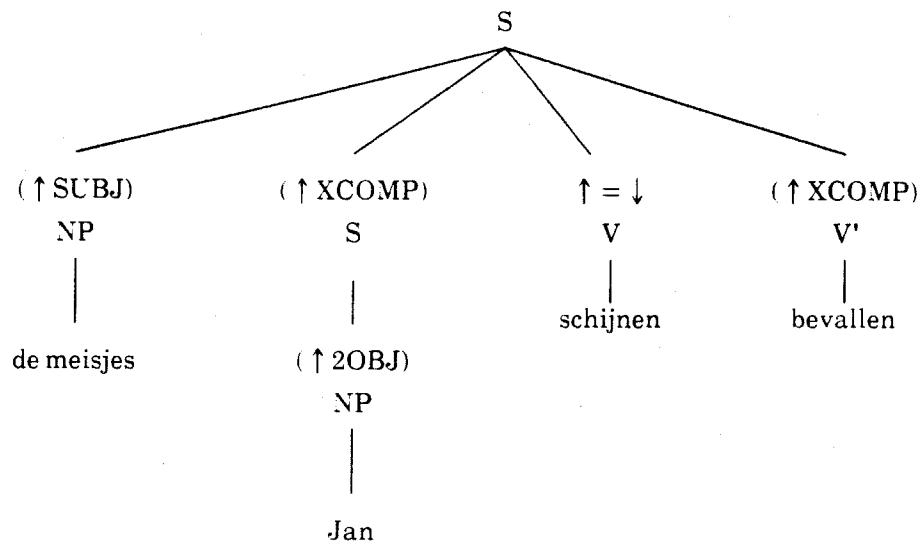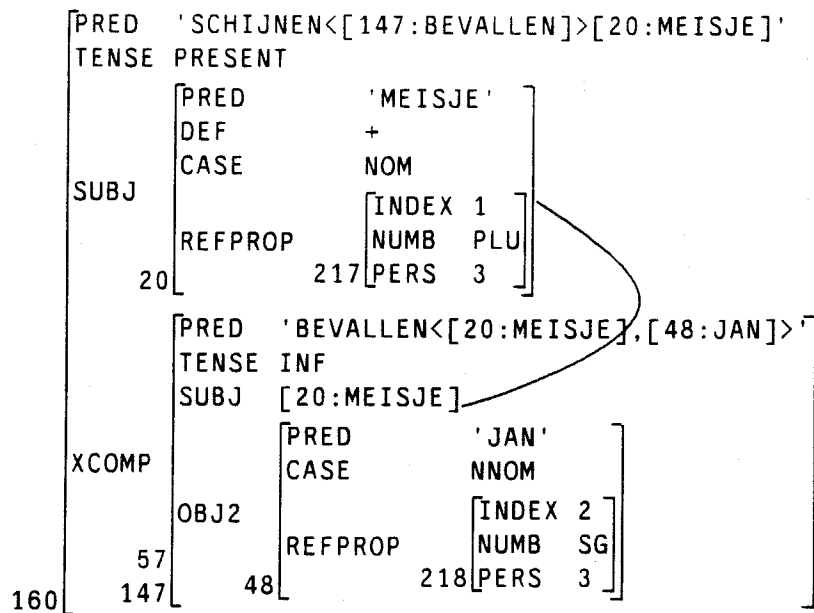
Now what will be done with sentences like (33) (a) or the simpler cases like (4) (b)? The word order shows that in addition to the rules we already have we also have to allow for a case in which the subject follows the 2OBJ. The simplest way to do this is by assuming the addition to the VP rule given in (47):
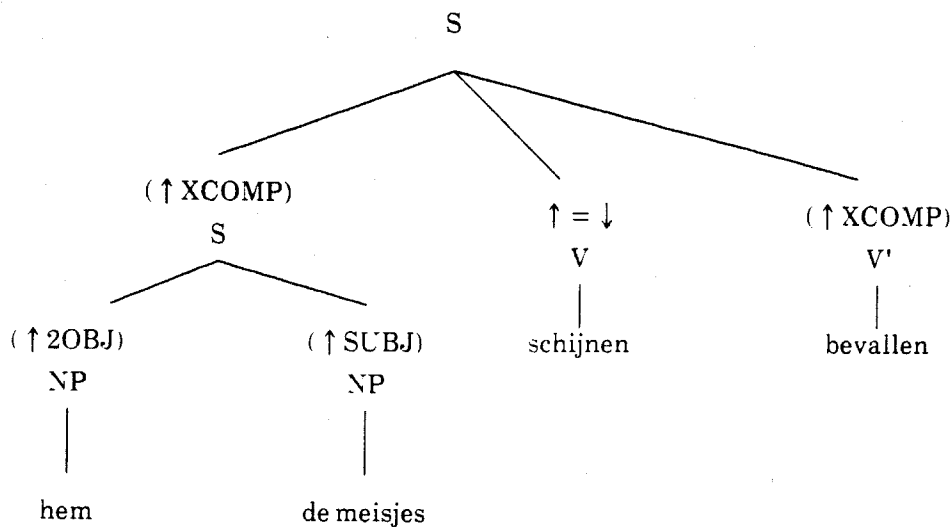
(47)   S -->   (NP: (↑SUBJ) = ↓)
                 (NP: (↑OBJ2) = ↓)
                 (NP: {(↑SUBJ) = ↓ | (↑OBJ) = ↓ }))
                 (S: (↑XCOMP) = ↓)
                 V

$(V':(\uparrow XCOMP) = \downarrow)$.

Once this done the problem is solved. The rule in (47) will now allow (49) as a c-structure representation for (48). The f-structure will of course still be like in (46):

(48)   ...dat Jan de meisjes schijnen te bevallen.
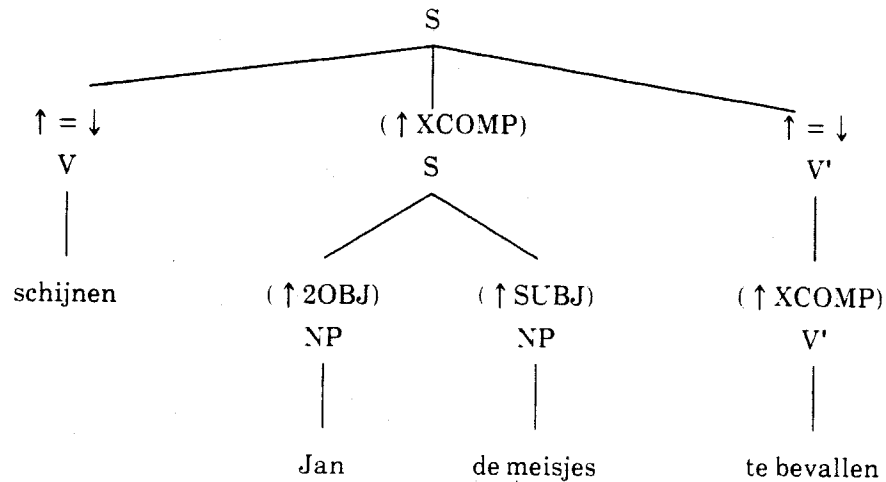   ...that John the girls seem to please.

(49)

The important difference between the transformational account and the LFG account is that given that raising is a lexical rule in LFG, no 'literal' raising in the c-structure needs to be assumed; the subject of the whole construction can appear in any place where subjects are allowed provided that the equation
$(\uparrow XCOMP\ SUBJ) = (\uparrow SUBJ)$ is respected, and this is the case in (49).
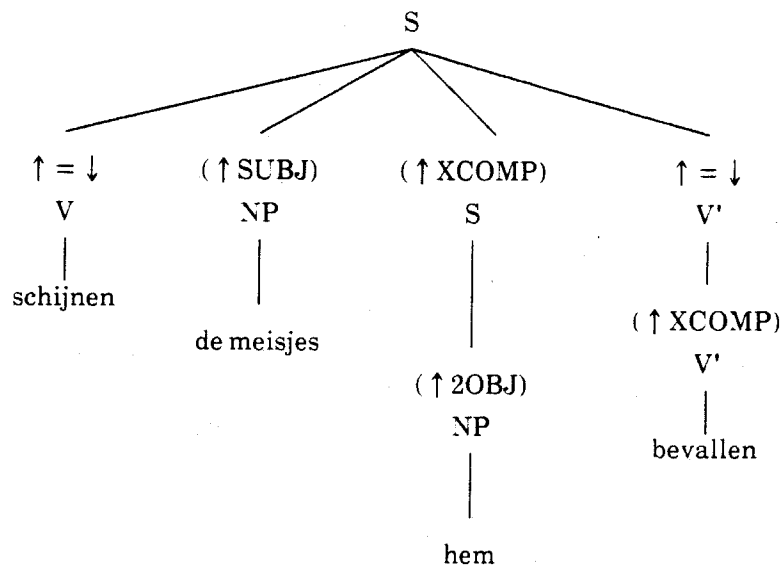
To fill in a few more details, I also give the questioned variants. Here again of course we will need a PSR, equivalent to the verb movement assumed in transformational theories[9]. The rule in (50) in conjunction with the assumptions already made will give us both (51) and (52):

(50)   S --> V
       (NP: $(\uparrow SUBJ) = \downarrow$
       (NP: $(\uparrow OBJ2) = \downarrow$
       (NP: $\{(\uparrow SUBJ) = \downarrow | (\uparrow OBJ) = \downarrow\}$))
       (S: $(\uparrow XCOMP) = \downarrow$)
       (V': $(\uparrow XCOMP) = \downarrow$).

(51)

```
                                    S
              ┌─────────────────────┼─────────────────────┐
           ↑ = ↓               ( ↑ XCOMP)               ↑ = ↓
            V                      S                      V'
            │              ┌───────┴───────┐              │
         schijnen      ( ↑ 2OBJ)       ( ↑ SUBJ)      ( ↑ XCOMP)
                          NP              NP              V'
                          │               │               │
                         Jan          de meisjes      te bevallen
```

(52)

```
                            S
          ┌──────────┬──────┴──────┬──────────────┐
        ↑ = ↓    ( ↑ SUBJ)    ( ↑ XCOMP)        ↑ = ↓
          V          NP            S              V'
          │          │            │              │
       schijnen  de meisjes       │          ( ↑ XCOMP)
                                  │              V'
                              ( ↑ 2OBJ)          │
                                  NP          bevallen
                                  │
                                 hem
```

Of course something has to tell us when the subject can appear in VP internal position given that the word order is not free in Dutch; as the examples in the beginning show, the possibility for having a VP internal subject is a lexical property of the verb but it is not an idiosyncratic property of one or two verbs; one generalization that can be proposed is given in (53)[10]. I assume that the notion of agent implies possible volitional control and that the nominative argument of please is a cause, the experiencer argument is a kind of goal, and the theme is what is expressed by the direct object of a simple transitive verb. Under my assumptions a verb like 'please' does not have a theme.

(53)   agent (implying control) < cause, goal.

Before discussing this hierarchy further I will describe an other instance where it plays a role.

5. Extending the analysis: ditransitives and word order

It would be rather surprising if all the characteristics we have discussed up to now would only be found with a handfull of verbs similar to please and indeed as has been observed several times (Koster, den Besten,....), there are other verbs with share some characteristics with the psychological predicates, namely the passives of ditransitive verbs, exemplified in (54):

(54)   (a)   ...dat Jan Piet de boeken gaf.
                     ...that John Pete the books gave (sg).

           (b)   ...dat Piet de boeken werden gegeven.
                     ...that Pete the books were (pl) given.

           (c)   ...dat de boeken Piet werden gegeven .
                     ...that the books Pete were given.

           (d) *   ...dat de boeken Jan Piet gaf.
                     ...that the books Jan Piet gave.

           (e) ??   ...dat Jan de boeken Piet gaf.
                     ...that John the books Pete gave.

As the (b) and the (c) version show, in this construction too, the word order is variable. This is not the case in the active version as (d) shows: in that case the theme argument cannot be inverted with the goal argument nor with the agent argument (As in English, there is a version with a PP expressing the goal in which this inversion is possible in the active, we do not consider it here).

Again the word order does not affect the agreement pattern or the syntactic properties of the construction, as the following examples indicate:

a. control:

(55)   (a)???   ....dat Jan hoopt boeken gegeven te worden.
                     ....that John hopes to be given books.

           (b)   ...dat de slaven hopen de koning toegewezen te worden.
                     ...that the salves hope to-the king to be assigned.

(56)   (a)???   Kadootjes gegeven worden is aangenaam.
                     To be given presents is agreeable.

           (b)   De koning toegewezen worden is aangenaam.
                     To be assigned to the king is agreeable.

(the (a) versions are slightly less bad than expected under the analysis given here).

b. reflexivization:

(57)*   ....dat Jan de boeken voor zichzelf gegeven werden.
         ....that John the books were given for himself.

(no plausible contrasting version)

c. participle formation:

(58)   (a)*   de boeken gegeven zijnde jongen.
                  the books given being boy.

         (b)   de de jongen gegeven zijnde boeken.
                  the the boy given being books.

So here again the syntactic subject tests show that the agreeing argument, in this case the theme-argument is the subject, but the word order allows the goal to precede the theme and with raising predicates we have the same result as in the case of bevallen:

(59)   Werden hem die boeken gegeven?
         Have-been him the books given?

(60)   Schenen Jan veel kadootjes gegeven te worden?
         Seemed John many presents given have-been?

If we assume that the non-agentive subject of the passive can follow the goal wheras an agentive subject has to precede, these facts can be explained in the same way as the ones discucced before, all we have to do is add the theme to the hierarchy given in (53):

(61)   agent < goal, cause < theme.

6. Putting the pieces together.

        In the account that we have been developing the different components of the grammar interact in crucial ways and it is time to spell out these interactions more explicitly. We gave some preliminary PSR for Dutc in the classical LFG format, we also introduced a linear precedence hierarchy; the work that these two do overlaps. We will discuss here how far we can get rid of this redundancy.

a. thematic roles and grammatical functions

        In (61) we made the assumption that thematic roles influence linear order in Dutch but it is also the case that thematic roles are the source of GF assignment. What is interesting is that in Dutch the way both work is not exactly the same. Let's first spell out the GF assignment rules. I will limit my attention here mainly to direct argument i.e. arguments that are realized as bare NP's. Like in all accusative languages, the unmarked mapping of an agent is to the SUBJ function and no other mappings to direct functions are possible, a goal argument is always mapped on a 2OBJ (again except when it is realized as an oblique, a case we are not discussing); a theme can be a subject or an object; from the limited data we have available it is not clear what the possibilities are for cause but subject is clearly one of them. The mappings I propose here are the same as given for German in Zaenen, Maling and Thrainsson (1985) (henceforth ZMT), I will assume that like in German the non nominative experiencers under consideration and the goals of ditransitives are inherently casemarked (only nominative and some accusatives are default cases):

(62)   Dutch Association Principles (cf ZMT (87)):

         a.   If there is only one thematic role, it is assigned to SUBJ; if there are

two, they are assigned to SUBJ and OBJ; if there are three, they are assigned to SUBJ, OBJ and 2OBJ. (Universal)

b.   AGENTS are linked to SUBJ. (Universal)

c.   Case-marked THEMATIC ROLES are assigned to 2OBJ. (Language specific)

d.   Default Casemarking: the highest availalbe GF is assigned NOM case, the next highest ACC.

b. Word order.

To deal with word order we will follow proposals made in Pullum (19*?), Falk (19...) etc, which dissociate linear order statements from immediate dominance statements. I will assume that the LP statements can refer both to category labels and functional annotations but only NP's are taken in consideration here[11]; the sentential ID rule is:

(63)   S :   {NP*, (S), V, (V')}.

The ordering statements for NPs are given in (63) [12]:

(64)   either : NP agent < NP goal,cause < NP theme
         or: NP SUBJ < NP 2OBJ < NP OBJ

What this says is that configurational encoding of GF's in Dutch is optional rather than obligatory, word order can also be used to indicate thematic prominence. By and large this gives the right results in the cases we have been considering up to now: in the ditransitive construction the theme has to follow the goal. The two orders in the passive are the consequence of the fact that in the passive the theme is also a subject and hence can precede other direct arguments, this option is not open in the active version, given that in that case the theme is realized as an object it will come last reagardless of which hierarchy is appealed to.

c. Are equi constructions a problem?

One set of facts that this account doesn't seem to handle well is illustrated with the next examples:

(38)   (a)*   Trachten Jan de meisjes te bevallen?
                  Try John the girls to please?
         (b)   Trachten de meisjes Jan te bevallen?
                  Try the girls John to please?

(39)   (a)?   ...dat Jan de meisjes hopen te bevallen.
                  ...that John these girls hope to please.

(39)   (b)   ...dat de meisjes Jan hopen te bevallen.
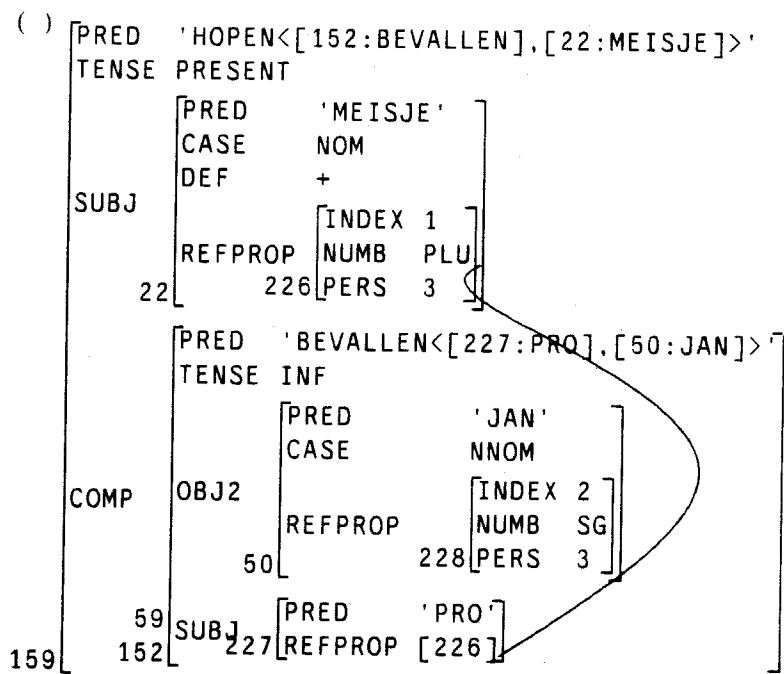   ...that these girls John hope to please.

As these examples show equi constructions do not allow the same freedom of word order that we find in raising contexts. If equi and raising are handled the same way, as proposed for English, in e.g. Kaplan and Bresnan (1982), this is difficult to account for; fortunately, Dutch is one of the

many languages (ref) in which there is some direct evidence that equi-control should not be handled with f-control but rather be seen as a case of anaphoric control. This is show by the fact that the subject is not always controlled by a sematically unrestricted function as exemplified in ( )-( )

( )　　....dat er getracht werd vroeg te vertrekken.
　　　　....dat there was tried to leave early.

( )　　...dat er gehoopt werd vroeg te kunnen vertrekken.[12]
　　　　...that there was hoped to be able to leave early.

( )　　...dat er beloofd werd vroeg te vertrekken.
　　　　...that there was promised to leave early.

So the lexical entries for <u>hopen</u> and <u>trachten</u> do not take a XCOMP but a COMP with a PRO subject in the f-structure as shown in (). In the f-structure the subject of the COMP does not play the role of matrix subject, so <u>hopen</u> and <u>trachten</u> need a surface subject at their own level and no problems arise.

( )
$$
159\begin{bmatrix}
\text{PRED} & \text{'HOPEN<[152:BEVALLEN],[22:MEISJE]>'} \\
\text{TENSE} & \text{PRESENT} \\
\text{SUBJ} & 22\begin{bmatrix} \text{PRED} & \text{'MEISJE'} \\ \text{CASE} & \text{NOM} \\ \text{DEF} & + \\ \text{REFPROP} & 226\begin{bmatrix} \text{INDEX} & 1 \\ \text{NUMB} & \text{PLU} \\ \text{PERS} & 3 \end{bmatrix} \end{bmatrix} \\
\text{COMP} & 152\begin{bmatrix} \text{PRED} & \text{'BEVALLEN<[227:PRO],[50:JAN]>'} \\ \text{TENSE} & \text{INF} \\ \text{OBJ2} & 50\begin{bmatrix} \text{PRED} & \text{'JAN'} \\ \text{CASE} & \text{NNOM} \\ \text{REFPROP} & 228\begin{bmatrix} \text{INDEX} & 2 \\ \text{NUMB} & \text{SG} \\ \text{PERS} & 3 \end{bmatrix} \end{bmatrix} \\ 59\,\text{SUBJ} & 227\begin{bmatrix} \text{PRED} & \text{'PRO'} \\ \text{REFPROP} & [226] \end{bmatrix} \end{bmatrix}
\end{bmatrix}
$$

6. Another possible analysis.

The facts above could be analysed in a different way: verbs like *bevallen* and the passives of the ditransitives could be assumed to have two lexical realizations given in (65):

(64)　bevallen <(SUBJ)(2OBJ)>, where the cause argument is the subject
　　　bevallen <(OBJ)(2OBJ)>(SUBJ) ; (SUBJ)=(OBJ)

This second entry is similar to the one given to *there* insertion verbs in English in Bresnan (1982) except for the fact that here we simply state that SUBJ=OBJ as there is no dummy involved that

takes over the subject function. We could also stipulate a silent dummy. The results as far as word order would be the same. The word order constraint would then be specified as in (66):

(66)   SUBJ <2OBJ <OBJ

And no reference to thematic roles would be necessary. This analysis is, as far as I can see, the LFG equivalent of the GB analysis given in de Besten (198?) and of impersonal inversion constructions in RG.

To choose between these two alternatives we have to look at a few more properties of NP sequences in Dutch and at word order constraints in other languages: if Dutch were the only language in which there was seemingly
evidence for thematic role constraints on word order an analysis assuming such constraints would obviously be suspect . I will not discuss this second point in any detail but observe that even in a language like Icelandic where word order is quite strict, one has to assume that some word order facts are handled by reference to thematic roles. Although this is not pointed out explicitly in ZMT, their account of ditransitives in Icelandic assumes that the ordering of the second and the third argument in a sentence like

(67)

is fixed by the constraint goal < theme rather then 2OBJ < OBJ as either of the two arguments is hypothesized to be able to have either GF. Arguments that German word order is dertermined by thematic roles are discussed in detail in Uszkoreit (198?). The proposal made in Uszkoreit is similar in nature to the one made here. There are two differences: it has a broader scope and GF's do not play a role in the order assignment. In German it is possible to state the order restrictions without recourse to GF because case distinguishes between 2OBJ and OBJ, in Dutch that is not possible given the distinction between the DAT and the ACC is lost.

Coming back to the Dutch internal evidence, I am not aware of any clear cut tests for OBJs in Dutch (apart from word order, case and passivization, which either under discussion or irrelevant here) but some tests have been proposed for non-subjects: if one could argue that the non-initial NP's are clearly not subjects, one could by elimination of the other possibilities (mainly 2OBJ and XCOMP) arrive at the conclusion they are OBJ. In the next section I will review some of these proposals and show that the tests do not pick out 'non-subjects' in a convincing way.

6. Some further properties of non initial subjects.

        In Perlmutter and Zaenen (1982) (henceforth P&Z), it is argued that the 'logical' subject of a Dutch *er* (there) insertion sentence is not its surface subject but that the dummy itself is the final subject. One of the main arguments given in that paper is one kind of extraposition of relative clauses called Non Focus RCE in P&Z[13]. This kind of extraposition is not possible with canonical subjects but is possible with the 'logical' subject of the *er* insertion construction. Some of the relevant contrasts are given in (67)-(69) (sentences adapted from P&Z):

(68)   ...dat Jan een jongen heeft geslagen die pas in de buurt is komen wonen.
         John hit a boy who just moved into the neighborhood.

(69)   (a)*   ...dat een buurman is aangekomen die van Brussel is.
                 ...that a neighbor has arrived, who is from Brussels.

         (b)   ...dat er verleden week iemand heeft beweerd die er geweest is dat
                 ...dat somebody who was there claimed last week that the

het leven in Mexico nog altijd goedkoop is.
cost of living in Mexico is still low.

(68) shows that the extraposition is possible when the relative clause modifies a OBJ, the (a) version of (69) shows it is not possible with a subject in initial position and the (b) version shows it is possible when *er* occurs in subject position. The RG-analysis proposed in P&Z is as such not available in LFG but we could try to account for the contrasts above by assuming that in *er*-constructions, the nominative NP is an OBJ and *er* is a non thematic subject and the agreement properties of the nominative object are inherited by the *er* in a way similar to what is proposed for there-insertion in English in Bresnan (1982). We will shorty see that this analysis is untenable but assuming it will help thinking about the implications of the data we will discuss now.

In the *bevallen* construction and in the ditransitives we find the same state of affairs with the non initial subjects. This is shown in examples (70)-(71) for the bevallen construction and (72)-(73) for the ditransitives:

(70)   ...dat Jan boeken zijn bevallen die jij nog niet gelezen hebt.
       ...that John have pleased books that you haven't read yet.

(71)* ...dat boeken Jan zijn bevallen die jij nog niet gelezen hebt.
       ...books have John pleased that you haven't read yet.

(72)   ...dat de jongens de kadootjes toegestuurd werden die we in Italie gekocht hadden.
       ...that to-the boys the presents have been sent that we met in Italy.

(73)* ...dat je kadootjes de jongens toegestuurd werden die we in Italie gekocht hadden
       ...that your presents to-the boys have been sent that we bought in Italy.

These contrasts are in fact not only found with extraposed relatives but also with PP's as shown in the following examples. (This type of extrapostion is best when the NP is indefinite so here I will construct examples with indefinites. The preverbal positions of the the NP's that are compared here, except those in the there-insertion construction, are not themselves constrained by definiteness requirements, so all the versions without extrapostion are grammatical):

Objects and *er*-insertion:

(74)?? ...dat een artikel is aangekomen over linguistiek.
        ...that an article has arrive about linguistiek.

(75)   ...dat hij een artikel heeft gepubliceerd over linguistiek.
        ...that he an article has published about linguistics.

(76)   ...dat er een artikel is aangekomen over linguistiek.
        ...that there an article has arrive about linguistiek.

Bevallen:

(77)   ...dat Jan een artikel is bevallen over linguistiek.
        ...that John an article has pleased about linguistics.

(78)?? ...dat <u>een artikel</u> Jan is bevallen <u>over linguistiek</u>.
...that <u>an article</u> John has pleased <u>about linguistics</u>.

Ditransitives:

(79) ...dat de jongens <u>verschillende dozen</u> toegestuurd werden <u>met kadootjes</u>.
...that to-the boys <u>several boxes</u> have been sent with presents.

(80)* ...dat <u>verschillende dozen</u> de jongens toegestuurd werden <u>met kadootjes</u>.
...that <u>several boxes</u> to-the boys have been sent with presents.

Similar contrasts have been noted (den Besten?) in the use of split 'wat-voor X' phrases as illustrated in (81)-(83):

Objects and *er*-insertion:

(81)?? <u>Wat</u> zijn <u>voor mensen</u> aangekomen?
<u>What</u> type have <u>of people</u> arrived?

(82) <u>Wat</u> heeft hij <u>voor boeken</u> gelezen?
<u>What</u> type has he <u>of books</u> read?

(83) <u>Wat</u> zijn er <u>voor mensen</u> gearriveerd?
<u>What</u> type have there <u>of people</u> arrrived?

Again they can be extended to bevalen constructions and ditransitives (check whether he does this too):
Bevallen:

(84) <u>Wat</u> zijn Jan <u>voor boeken</u> bevallen?
<u>What</u> type have <u>of books</u> pleased John?

(85)* <u>Wat</u> zijn <u>voor boeken</u> Jan bevallen?
<u>What</u> type have <u>of books</u> pleased him?

Ditransitives:

(86) <u>Wat</u> werden Jan <u>voor kadootjes</u> gegeven?
<u>What</u> have-been John for presents given?
What type of presents have been given John?

(87)* <u>Wat</u> werden <u>voor kadootjes</u> Jan geven?
<u>What</u> type have-been for presents John given?

In some of these sentences the idiomatic phrase '*wat voor X*', translatable as 'what type of X' can be split; the *wat* occuring in the position in which question words are found in general but the rest of the expression remaining it is within-clause position. (It is also possible to put the whole *wat voor X* phrase in initial position, this is obligatory in the cases in which the split is not allowed, These variants are of no interest to us here.) The interesting question is what the conditions on this split are.

As already pointed out by den Besten (???) '*wat-voor*' split is not so good with indirect objects in active constructions as illustrated in (90):

(88)?? Wat heb jij <u>voor mensen</u> kadootjes gegeven?
What type have you for people presents given?

The same holds for the other constrasts under consideration:

Non Focus RCE:

(89)?* ...dat Jan <u>een/de jongen</u> boeken gegeven heeft <u>die jij nog niet kent</u>.
...that John a/the boy books given has who you not yet know.

PP extraposition:

(90)?* ...dat Jan <u>een jongen</u> boeken gegeven heeft <u>met grote oren</u>.
...that John a/the boy books given has with big ears.

If this were the whole array of facts it would be tempting to adopt the proposal in subsection c. above: we could then claim that the OBJ position allows the split versions whereas other positions don't. The NP's that are both subject and object (or alternate between being subject and objects) could only manifest the split when they are in OBJ position.

However the facts given above do not show the whole picture. As observed in Hoekstra (...) in the *bevallen* construction the results depend on which NP comes first for *wat-voor*-split and the same holds in the passive ditransitives as the following examples show:

(92)* Wat zijn <u>voor mensen</u> die boeken bevallen?
What type have for people these books pleased?

(91)? Wat zijn die boeken <u>voor mensen</u> bevallen?
What type have these books pleased for people?

(93)* Wat werden <u>voor kadootjes</u> Jan geven?
What type have-been for presents John given?

(94) Wat werden Jan <u>voor kadootjes</u> gegeven?
What have-been John for presents given?
What type of presents have been given John?

The two extrapostion constructions follow the same pattern:

(95)* ...dat <u>een verzamelaar</u> het schilderij is bevallen <u>met veel geld</u>.
...that a collector the painting has pleased with a lot of money.

(96) ...dat het schilderij <u>een verzamelaar</u> is bevallen <u>met veel geld</u>.
...that a collector the painting has pleased with a lot of money.

(97)* ...dat <u>een jongen</u> je kadootjes toegestuurd werden <u>met weing geld</u>.
...that to-a boy your presents have been sent with little money.

(98) ...dat je kadootjes <u>een jongen</u> toegestuurd werden <u>met weing geld</u>
...that your presents to-a boy have been sent with little money.

What seems to be going on in all these constructions is that the discontinuity is best when the head of the discontinuous constituent is in last position. What is meant by last position differs for *wat-voor*-split on the one hand and the two extrapostion constructions on the other:

Wat-voor-split is only good with NPs directly embedded under S, whereas extraposition is also possible from NP embedded in PP's, as shown in the following examples:

(99) (a) ...dat Jan het boek op de tafel gelegd heeft die in the hoek staat.
           ...that John the book on the table put has that is in the corner.

      (b) ...dat Jan het boek op een tafel gelegd heeft met een groen tafellaken
           ...that John the boek on the table put has with the green tablecloth.

The hypothesis that what is at issue is the last position regardless of its GF gives also the right result in the interaction with *er* insertion: in Dutch there-insertion if fairly general an can occur even in transitive clauses as shown in (88):

(100) ...dat er in Belgie vele mensen deze film gezien hebben.
       ...that there in Belgie many people this movie have seen.

When the extraposed subject is not the last constituent before the verb, however, neither extraposition nor wat-voor dislocation is totally felicitous:

(101) ??   ...dat er vele mensen deze film gezien hebben die het
            ...that there many people this movie have seen who the

            boek niet gelezen hebben.
            book not have read.

(102)   ...dat er al vele mensen de film gezien hebben die jij zojuist
            ...that there already many people the movie have seen that you just

            schijnt ontdekt te hebben.
            seem to have discovered.

(103) ?*   ...dat er weinig mensen schilderijen kopen met een huis in Maine.
            ...that there few people painting buy with a house in Maine.

(104)   ...dat er weinig mensen schilderijen kopen met paardenkoppen op.
            ...that there few people paintings buy with horseheads on (them).

(105) ??   Wat hebben er voor mensen deze film gezien.
            What type have there of people this movie seen.

It is more difficult to test whether the nominative in last position in the *er*-insertion construction always allows the split constructions because that position itself is not the preferred one:

(106)   ...dat er deze film al veel mensen gezien hebben die het boek niet
            ...that there this movie many people seen have who the book not

            gelezen hebben.
            read have.

(107)?   ...dat er dit soort schilderijen niet veel mensen kopen met
            ...that there this kind of paintings not many people buy with

            een huis in Maine.
            a house in Maine.

(108) ?? <u>Wat</u> hebben er deze schilderijen <u>voor mensen</u> gekocht?
<u>What</u> type have there these paintings <u>of people</u> bought?

(108) is about as bad as a non split equivalent given in (109):

(109) ?? ...dat er deze schilderijen eigenaardige mensen gekocht hebben.
...that there these paintings strange people bought have.

(107) is slightly worse than the non extraposed counterpart.

The observation that the last position is best leads to the suspicion that what is at issue is more discourse organization than GF's or thematic roles per se and this has of course been argued explicitly for extraposition (see Gueron (1980), ... for the general claim and Verhagen (1984) for Dutch). We will not go into the details of these accounts here. It is clear that they cannot be accounted for by assuming that the split constructions are limited to the OBJ position[14].

Accounts of *er* in Dutch that argue that the agreeing argument is not the subject have mainly been motivated by the fact that *er* can occur in all positions in which a canonical subject can occur. It is easy to insure that *er* (there) will always occur as the first NP in a sequence of NP's and only with indefinite subjects by adding the following information to our grammar:

(110) (a) er: ($\uparrow$ SUBJ DEF) = c -, ($\uparrow$ DUMMY) = +

And by adding a statement ordering NP:($\uparrow$ DUMMY) = + in front of the two ordering statements given in (61). This treatment does not make *er* into a subject but it will restrict its occurrence to the initial position of NP sequences; the only property it has in common with subjects.

Although further details about the extrapostion construction and *wat-voor*-split need to be worked out, we can conclude that within the grammar of Dutch, there is no motivation for double lexical entries for all passive ditransitives and the *bevallen* type verbs.

7. adjunct control in ditransitives and *bevallen* constructions

Hoekstra (198?) discusses another way in which ditransitives and the *bevallen* construction are similar. He observes that Dutch has a participial construction in which the understood subject is in most cases controlled by the surface subject of the main clause as illustrated in (99):

(111) Na van het uitzicht genoten te hebben, gingen we terug naar huis.
After of the view enjoyed to have, we went back home.

The subject of a passive can also be the controller as shown in (112):

(112) Na van het uitzicht genoten te hebben, werden we weer terug gevoerd.
After of the view enjoyed to have drove were we driven back again .

By-phrases are however not possible controllers:

(113) Na van het uitzicht genoten te hebben, werden we door Jan weer terug gevoerd.
After of the view enjoyed to have drove were we driven back again by John.
(not ambiguous)

But in the bevallen construction both arguments can be controllers as illustrated in (114) and (115):

(114)   Na van vakantie te zijn terug gekeerd, bevalt dit baantje me beter
         After from vacation to be back returned pleases this job me better.
         (Hoekstra p. 193)

(115)   Na de job aanvaard te hebben, beviel hij me beter.
         After having accepted the job he pleased me more. (ambiguous)

A construction that works in the same way is illustrated in the next set of examples:

(116)   Met zijn legerdiesnt achter de rug vond hij gemakkelijk een nieuwe baan.
         His military service behind the back he found easily a job.

(117)   Met zijn legerdienst achter de rug, werd hij in de firma opgenomen.
         His military service behind the back he was accepted in the firm

(118)   Met zijn legerdienst achter de rug beviel hij me beter.
         His military service behind the back he pleased me more.

(119)   Met mijn legerdienst achter de rug beviel me het baantje niet meer.
         My military service behind the back my job didn't please me anymore.

In these two constructions too, the goal in a ditransitive passive can be the controller, whereas in the active version this is not possible:

(120)   Met zijn legerdiesnt achter de rug werd hem direct
              With his military service done has-been him immediately

              een nieuwe baan aangeboden.
              a new job offered.

(121)   ??   Met zijn legerdienst achter de rug bood de firma hem
              With his military service done offered the firm him

              een nieuwe baan aan.
              a new job offered.

(121)*   Na van vakantie te zijn terug gekeerd bood de firma hem
              After from vacation being returned ofered the firm him

              een nieuwe baan aan.
              a new job offered.

(122)   Na van vakantie te zijn terug gekeerd werd me
              After from vacation being returned has been me

              een nieuwe baan aangeboden.
              a new job offered. (Hoekstra p. 193).

When we construct the right kind of example it can be shown that in the passive of a ditransitive, both the theme and the goal can control the adjunct:

(123)   Na van de reis bekomen te zijn werden de koning de slaven aangeboden.
          After being restored from the trip were to-the king the slaves offered.
          (ambiguous).

The possible controllers of the adjuncts exemplified here can be picked out by the following hierarchy, again limited to direct arguments:

(124) agent < {all others} and ‾[{all others}< agent].

It is clear that empirically the argument that is picked out by (113) overlaps to a great extent with what is called a working 1 in RG. As pointed out in Hoekstra, however, there are empirical differences: (124) predicts a difference in behavior between the goal argument in the active and the passive of a ditransitive. Whereas the notion of working 1 as defined in Perlmutter (1982) does not predict such a difference. The Dutch facts support (124) of course. What about the Italian facts? It turns out that they show the same contrast between passives and actives of ditransitives as Dutch does. This is shown by the following examples:

??Maria gli ha dato tanti soldi da diventare ricco.
Mary gave him so much money that he became rich.

Gli furono dati tanti soldi da diventare ricco.
Him was given so much moneys that he became rich.

??Avendo lavorato tutta la giornata, Maria gli diede i soldi.
Having worked the whole day, Maria have him the money.

Avendo lavorato tutta la giornata, gli furono dati i soldi
Having worked the whole day him, were given the moneys.

??Appena tornato in città, Maria gli ha diede i soldi.
Just come back to town, Mary gave him the money.

Appena tornato in città, gli furono dati i soldi.
Just come back to town, him were given the moneys.

??Prima di tornare in città, Maria gli ha dato i soldi.
Before coming back to the town, Mary gave him the money.

Prima di tornare in città, gli furono dati i soldi.
Before coming back to town him were given the moneys.

At this point it is not possible to accomodate these facts within RG: postulating that the dative has been promoted to subject and the nominative ends up as a chomeur in the passive versions would violate the 1AEXL. I leave further discussion to the proponents of the theory.

10.Conclusions:
interaction of conditions

Appendix : word order

Footnotes:

1. biblio about previous stuff.

2. except when the discussion explicitly requires it, all examples are given as embedded clauses;
they exemplify the word orders possible in what is traditionally called the middle field; to account
for word order in main clauses we have to take the effect of topicalization into account which is
not our concern here. Also the examples contain only full definite NP's except when casemarking
(which only shows up with pronouns) has to be illustrated. Pronouns have some ordering
constraints different from full NP's,they will not concern us here; in Dutch the effect of
definiteness of full NP's is limited to what are, in the account given here, VP internal positions; it
is not possible, like in German to invert direct and indirect objects when one or the other is
indefinite, as illustrated in (i)-

(i)   ...dat Jan de jongen het boek gegeven heeft.
         ...dat Jan de jongen een boek gegeven heeft.
         ...dat Jan een jongen het boek geven heeft.
?*   ...dat Jan het boek een jongen gegeven heeft.
*   ...dat Jan een boek een jongen gegeven heeft.
*   ...dat Jan het boek de jongen gegeven heeft.

3. Keenans terminology

4. ref to Belletti and Rizzi with comments

5.not due to morphology: de oud wordende man

6. In fact it might be more correct to say that in Dutch the VP and the S are non distinct, the only
distinction that is made in LFG between an S and a VP is that the S contains a subject and the VP
does not. In Dutch then the claim would be there is no constituent that cannot contain a subject
but ontain all the other arguments of the verb. For the reason for V', V, see Bresnan et al. for a
slight change, see the appendix.

7. give some refs about verb raising.

8. I am not aware of any direct evidence for the claim that the experiencer is a 2OBJ but it will
account for the fact that these verbs have no passive form and allow a uniform account of the
bevallen construction and the passive of the ditransitives see further.

9. I am not 'Chomsky-adjoining' the verb to the S; it would make no difference in this context but
the structure that are often assumed for questions and topicalized structures in Germanic
languages (see e.g. Platzack (198?) for an overview) are not empirically motivated and in some
instances even empirically inadequate (see Wechsler (1986) for discussion). So there is no reason
to blindly assume them.

10. thematic roles abbreviations for semantic factors not spelled out.

11. a complete statement of LP rules will also order the NP's before the verbal elements; i am
assuming here that S and V and V' are all +V; the ordering statements would be simpler if one
assumesthat the tensed verb can be either part of the V' or not, so that we have the PSR given in
the text but also

V' ---> V: ↑ =! ; V: (↑ XCOMP)=!.

we can then state that within each constituent the head is first, giving verb first order when the tensed verb is treated as a daugther of S and giving the tensed verb as the first element of the verbal complex in case it is treated as a component of V'; for the verb second order in main clauses see e.g. the proposal made in Wechsler (1987).

12. see Uszkoreit for an extensive discussion of German word order, showing that alternative principles can play a role in that language. It is interesting to compare the requirements for Dutch with what we would get in Icelandic, in that language, the (definite) SUBJ is always in first position in the middle field but the order of the OBJ's is determined not by their GF but by therir thematic role, so in Icelandic we have:

(i)   SUBJ < OBJ and SUBJ < 2OBJ
         and goal < theme

This seems also to be the requirement for the dialect of English in which both postverbal NP arguments of ditransitive verbs can passivize: in the Standard American dialect we rather have:

(ii)   SUBJ < OBJ < 2OBJ, which implies agent < goal < theme

It seems that the thematic orders tend to be universal maybe the more language specific functional constraints constrain the possible mappings between thematic roles and GFs.

13. Non focus RCE was in that paper distinguished from another relative clause extrapostion rule exemplified in (i):

(i)   ...dat deze mensen nog altijd naar Europa of vacantie gaan, die er familie hebben.

For this to be possible the subject NP needs heavy stress and preferably a demonstrative article. With hindsight it seems of course more likely to assume that the examples given in the texts as Non Focus RCE and the sentence in (i) are instances of the same construction and that in both cases extrapostion is only possible from a focus position. What distinguishes between them is that NP which are the last argument in the sentence are in a position that is focussed without needing heavy stress whereas an initial position can only be focussed via special stress assignment. In this paper I will limit my atention to sentences without 'special' stress and argue that even on the basis of those it can be shown that GF's are not at issue in extrapostion constructions.

14. In RG one might still want to propose an account in which all the NP's in final position are chomeurs of some kind but LFG being a full employment system this avenue is not open to us. One thing that needs to be accounted for in the LFG approach is that in sentences with one argument extraposition or wat-voor split are not good; if we constrain these construction to the last NP or the last argument in a sequence, we will not prevent them from applying when the first argument is also the last. Technically this can be done by stating a LP rule as given in (i) (I assume here that focus assignment is the relevant factor that licences extraposition and wat-voor-split and that the NP requirement for
wat-voor-split follows from some condition on extraction):

(i)   [XP +], XP: (↑ FOCUS) = +

This statement requires at least one constituent to preced the focussed constituent. This is of course exactly what er insertion allows for with indefinite NP's. As discussed in footnote 13, in definite NP's there are other ways to assign focus.

Bibliography:

den Besten, H. : Government, Syntaktische Struktur und Kasus
    in: M. Kohrt & J. Lenerz (eds): *Sprache, Formen und Strukturen*

Hoekstra, T. : *Transitivity*, Foris