An Inflectional Approach to French Clitics*

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The present paper is an attempt to account for French clisis in a well-motivated fashion. The subject is one which has, both traditionally and in recent years, received a lot of attention, especially since Perlmutter (1971) proposed that cooccurrence and ordering restrictions on French clitics be formalized as a surface structure constraint; but it has lately led researchers reacting against Perlmutter's approach (e.g. Henry (1974), Emonds (1975) and Fiengo and Gitterman (1978)) to analyses requiring extrinsic rule orderings and such ad hoc devices as 'clitic-flip' transformations. My thesis here is that these analyses suffer from at least one substantially erroneous assumption, namely that clitics should derive transformationally from full noun phrases or prepositional phrases. I propose, instead, a contrary assumption: that French clitics, far from corresponding syntactically to full noun phrases or prepositional phrases, are instead verbal inflections realized by late spelling-out and allomorphy rules after the application of all syntactic transformations-- that both those clitics fulfilling a selectional/subcategorization requirement on a constituent within V' and those clitics adverbially modifying a constituent occur underlyingly as aggregates of features on that constituent. My treatment avoids the necessity of surface structure constraints, extrinsic orderings, and clitic-rearranging transformations.
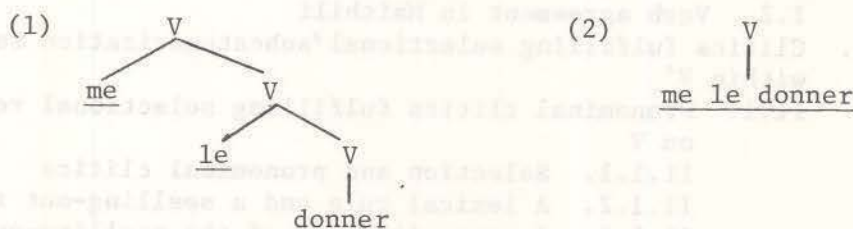
The basic facts motivating such an inflectional approach are important, and deserve a bit of discussion. In his 1976 article, 'On Clitics', Arnold Zwicky observes that there are at least three basic types of clitics, each with its own peculiarities of syntax and phonology. Simple clitics are bound or cliticized forms of words, showing the same syntax as their unreduced versions, and the regular phonology common to all unaccented forms in the language. In contrast, special clitics, although they serve as bound variants of independent words, may show idiosyncratic syntax, and are often merely similar in pronunciation to their 'strong' forms, sharing no underlying identity with them. Bound words, finally, are clitics not clearly to be identified with any free form, but showing notable combinatory freedom; they are often 'semantically associated with an entire constituent while being phonologically attached to one word of this constituent.' (p. 8)

The French pronominal and adverbial clitics are, evidently, special clitics: although they are semantically like strong pronouns or full prepositional phrases, they have no systematic phonological connection with such forms, nor do they bear any likeness to them in syntactic behavior.

It has nevertheless become the custom in recent generative work
to assume that clitics are underlyingly identical with synonymous
strong forms, and that their clitic status is derivative--the product
of clitic placement and rearrangement transformations moving strong
forms to the verb and binding them to it (whether through rebracketing
or by a requirement that only those strong forms marked with a certain
feature ([-strong], [-stress], or the like) may be 'placed'). That
is, the semantic identity of French clitics with full pronouns or
prepositional phrases has become sufficient justification for assuming
their underlying syntactic identity as well. This in spite of over-
whelming evidence inviting a contrary conclusion: Zwicky's six diagnostic
properties of affixes reveal the French clitics to have a very affix-
like character;[1] the wordhood criteria of uninterruptibility and
internal stability suggest that French clitic-verb sequences ('groups',
in Zwicky's terminology, hereafter adopted) are single words, a
conclusion corroborated by the fact that such sequences appear to ful-
fill the role of simple verbs with respect to several transformations
(see Kayne (1975:92-102)). In short, previous analyses have treated
the French clitics as though they were simple clitics--reductions of
transparently related free forms. Historically, they are--special
clitics quite commonly derive from simple clitics (but, by retaining
their once-transparent phonology and their once-regular syntax while
the phonology and syntax of their strong counterparts evolves, they
become less and less clearly associated with their independent
synonyms); but special clitics have abandoned their systematic phono-
logical and syntactic identity with synonymous free forms--they have
begun the second leg of a characteristic course of evolution: 'After
the development from independent word to clitic, the next step is, of
course, the incorporation of clitics into morphology proper: what is
a clitic at one stage is reinterpreted as a derivational or inflectional
affix at the next.' (Zwicky (1976:8)). Previous analysts have un-
questioningly assumed that this reinterpretation hasn't yet taken place;
in what follows, I shall make just the contrary assumption--that the
French special clitics have attained the status of inflectional affixes.

This point of view isn't entirely new.[2] In her important paper
'Towards an Inflectional Theory of Clitics', Anneke Groos has suggested
that, in Spanish, one might posit underlyingly empty clitic-nodes
sister to V which are transformationally filled so as to agree with
strong object nouns or pronouns (which may or may not be subsequently
deleted); that is, Spanish pronominal clitics might be treated as
agreement inflections rather than as superficial manifestations of
underlyingly strong pronouns which have undergone a clitic-placement
transformation. I am very sympathetic to Groos' refreshing approach--
I share many of her fundamental assumptions. But a reasonable treat-
ment of Spanish (and French) clitics must, I believe, diverge from
Groos' approach in two respects. First, all the evidence suggests
that such clitics aren't to be dominated by separate nodes, but should

simply be part of what is dominated by the lexical node V. I
accordingly assume all superficial groups to be dominated by V. I
do not, however, assume the internal constituent structure ascribed
to groups in many recent transformational approaches, such as the
analysis (1) for the verb me le donner.

```
        (1)         V                         (2)              V
                   / \                                         |
                 me    V                              me le donner
                      / \
                    le    V
                          |
                       donner
```

This analysis implies that in the verb me le donner, le donner forms
a syntactic constituent independent of me. There is, however, no
evidence that me le donner has any internal syntactic constituent
structure; rather, the facts suggest merely that it has the internal
morphological structure me+le+donner. Thus, in the present treatment,
this verb is to be structurally represented as in (2).

Second, although it is clear that in a Spanish sentence such as
(3), the clitic expresses agreement with an explicit object, it isn't
necessarily the case that clitics always express agreement--in
sentence (4), the clitic, far from expressing agreement with some
object, itself serves as the object of the verb; to assume in such
instances that an object was present when the clitic was spelled out
but was subsequently deleted is to beg the question.

    (3) Me vieron a mí.
    (4) Me vieron. (examples from Groos (1977:12))

This is especially true in French, in which verbs never have both a
clitic and a full noun phrase or prepositional phrase fulfilling the
same relational/semantic role.[3] Thus, I don't take French clitics to
mark agreement; rather, I treat them as verbal affixes fulfilling
relational roles[4] otherwise filled by full noun phrases and preposi-
tional phrases.

The present approach to French clisis is therefore distinguished
from all prior treatments in two important ways: (i) I assume that
clitics are verbal inflections represented as groups of features on
constituents dominated by V' and that they are not spelled out until
after the application of all syntactic rules; (ii) I assume that all
clitics, whether they are pronominal or 'adverbial', whether they
fulfil a selectional/subcategorization requirement on a constituent
dominated by V' or merely adverbially modify a constituent, occur
underlyingly as a collection of features on this constituent (whether
or not this is the verb to which they end up clitic).

The discussion of the inflectional approach will proceed according
to the following scheme:

I. Complex symbols of second order.

My treatment requires a piece of formalism that is normally un-
assumed in generative treatments of inflection, namely complex symbols
of second order (i.e. embedded within other complex symbols). Before
proceeding to the discussion of French clitics, I wish to establish the
independent motivation for this device in the description of natural
language verbal inflection. I shall do this by demonstrating that,
despite the relative simplicity of the formalism required for the
description of verb agreement in English, this more complex device is
necessary for the description of verb agreement in a language such
as Maithili.

I.1. Verb agreement in English.

An uncontroversial assumption in the transformational analysis
of English is that verb agreement should be formulated as a trans-
formation copying features from the constituent dominated by TNS and
from the subject constituent onto the leftmost verb in the predicate.
That is, it is supposed that a sentence like (5) has (6) as its
structure at some derived stage of derivation; a transformation of
subject-verb agreement operates on (6), copying the features [+III,
+sg] from the subject NP and the feature [+pres] from the auxiliary
onto like.

(5) John likes Mary.

(6)
```
                    S
          ┌─────────┴─────────┐
         NP                  PRED
          │           ┌───────┴───────┐
          N          AUX             VP
      ┌───────┐       │         ┌─────┴─────┐
      │ John  │      TNS        V          NP
      │ +III  │       │         │           │
      │ +sg   │    [+pres]    like          N
      └───────┘                             │
                                          Mary
```

(7)
```
                    S
          ┌─────────┴─────────┐
         NP                  PRED
          │           ┌───────┴───────┐
          N          AUX             VP
      ┌───────┐       │         ┌─────┴─────┐
      │ John  │      TNS        V          NP
      │ +III  │       │    ┌─────────┐      │
      │ +sg   │    [+pres] │ like    │      N
      └───────┘            │ +III    │      │
                           │ +sg     │    Mary
                           │ +pres   │
                           └─────────┘
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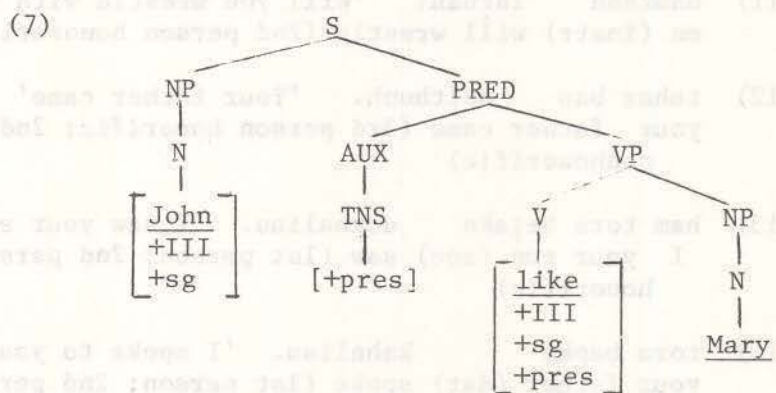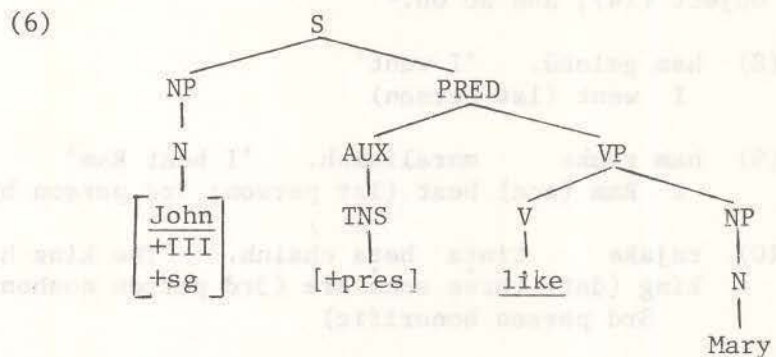
A very late rule eventually spells out [like, +III, +sg, +pres] as
likes.

    An important question for the theory of transformational grammar
is whether verb agreement may be as simply formulated in descriptions
of other languages--or whether recourse to a more complicated formal
device is called for. Evidence from the Maithili language suggests
that the latter is the case.

I.2. Verb agreement in Maithili.
    Maithili is a modern Indic language of the Bihari family, spoken
by roughly 20 million speakers in the Bihar state of northeastern
India and in the tarai of Nepal. It is unusual among Indo-European
languages for its verb agreement system, which allows verbs to agree
in person and honorific grade not only with their subject, but with
any one of their oblique objects, or with a genitive noun phrase
modifying one of these (the choice being determined by the relative
'prominence' of the different noun phrases in the predicate--see Jha
(1958:472)). Thus, a verb might agree only with its subject (as in (8));
or, in addition to its subject, with its direct object (9); with its
dative object (10); with its instrumental object (11); with a genitive
noun phrase modifying the subject (12); with a genitive noun phrase

modifying the direct object (13); with a genitive noun phrase modifying the dative object (14); and so on.[5]

    (8)   ham gelahũ. 'I went'
            I went (1st person)

    (9)   ham ramke   maraliainh. 'I beat Ram'
            I Ram (acc) beat (1st person; 3rd person honorific)

    (10)   rajake   tinṭa beṭa chainh.   'The king has 3 sons'
            king (dat) three sons are (3rd person nonhonorific;
               3rd person honorific)

    (11)   hamrasã   larbah? 'Will you wrestle with me?'
            me (instr) will wrestle (2nd person honorific; 1st person)

    (12)   tohar bap   aelthunh. 'Your father came'
            your father came (3rd person honorific; 2nd person
               nonhonorific)

    (13)   ham tora beṭake   dekhaliau. 'I saw your son'
            I your son (acc) saw (1st person; 2nd person non-
               honorific)

    (14)   tora bapke   kahaliau. 'I spoke to your father'
            your father (dat) spoke (1st person; 2nd person
               nonhonorific)

As Jhā (1958:473) observes, this flexibility in the reference of the inflections can lead to ambiguity; for example, sentence (15) is ambiguous as to whether the third person reflected in the desinence fulfils a dative or a genitive function.

    (15)   puchlahunh. 'You asked him'/'You asked his'
            asked (2nd person nonhonorific; 3rd person honorific)

What's at issue here is the formal mechanism necessary to spell out Maithili verb agreement; I shall show that this mechanism must be more complex than is necessary for the spelling out of English verb agreement.

Consider sentence (16). We might characterize its underlying structure as in (17).

    (16)   ram tora beṭake   dekhalthunh. 'Ram saw your son'
            Ram your son (acc) saw (3rd person honorific; 2nd
               person nonhonorific)

(17)

```
                    S
          ┌─────────┴─────────┐
         NP                    VP
          │              ┌──────┴──────┐
          N             NP              V
          │        ┌─────┴─────┐        │
        ┌─────┐   DET          N     ┌──────┐
        │ Ram │    │           │     │ dekh │
        │+III │ ┌──────┐     ┌─────┐ │-pres │
        │+hon │ │ tora │     │beta │ └──────┘
        │+nom │ │ +II  │     └─────┘
        └─────┘ │ -hon │
                │ -nom │
                └──────┘
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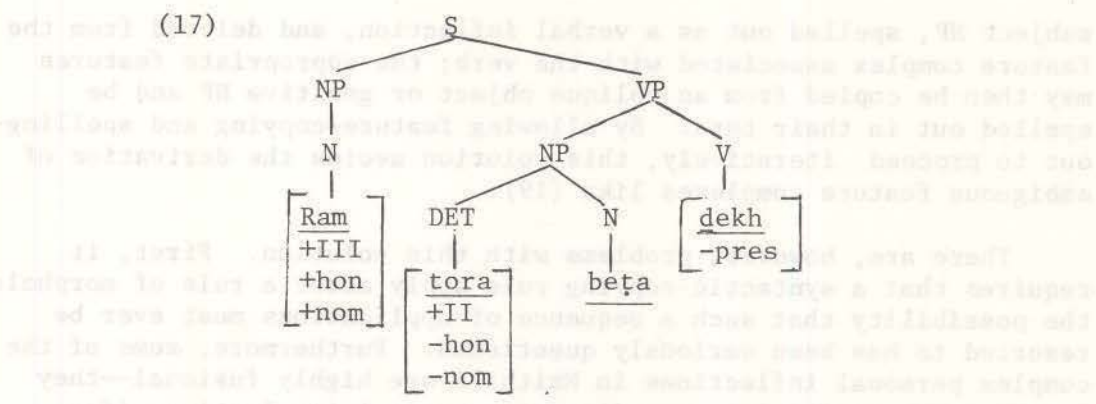
(17) must undergo a verb-agreement transformation copying the features [+III, +hon, +nom] from Ram and the features [+II, -hon, -nom] from the possessive determiner tora onto the verb. Notice, however, that this cannot be simple copying, of the type employed in English, for if the Maithili verb agreement transformation were to consist simply of feature copying, then (18) would result as the transform of (17). Now, complex symbols such as (19) have no internal linear structure-- they are simply sets of specified features.

(18)

```
                    S
          ┌─────────┴─────────┐
         NP                    VP
          │              ┌──────┴──────┐
          N             NP              V
          │        ┌─────┴─────┐        │
        ┌─────┐   DET          N     ┌──────┐
        │ Ram │    │           │     │ dekh │
        │+III │ ┌──────┐     ┌─────┐ │-pres │
        │+hon │ │ tora │     │beta │ │+III  │
        │+nom │ │ +II  │     └─────┘ │+hon  │
        └─────┘ │ -hon │             │+nom  │
                │ -nom │             │+II   │
                └──────┘             │-hon  │
                                     │-nom  │
                                     └──────┘
```

(19)

```
┌──────┐
│ dekh │
│-pres │
│+III  │
│+hon  │
│+nom  │
│+II   │
│-hon  │
│-nom  │
└──────┘
```
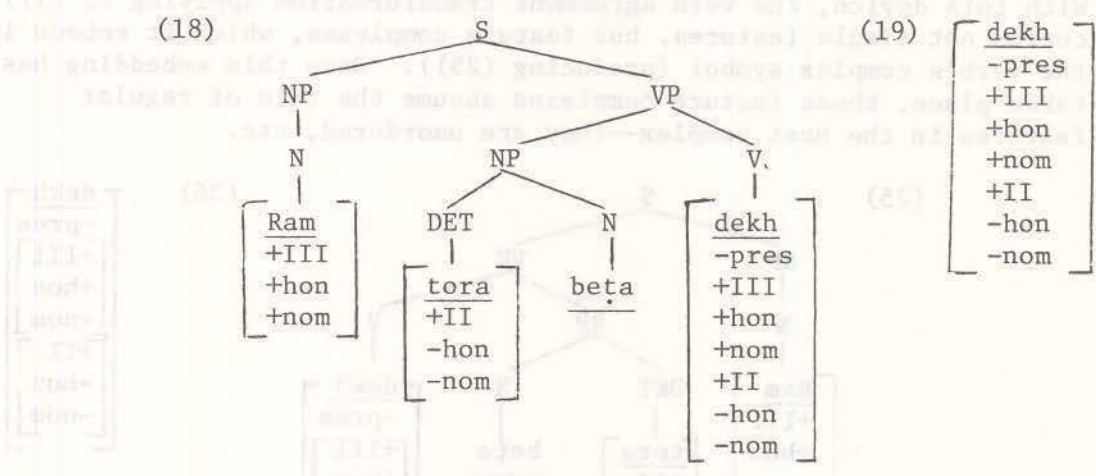
This makes it impossible for (19) to be associated with a unique inflection of dekh-; the rule spelling out inflectional endings from features could not, in principle, match specifications of person with those of case and honorific grade in exactly the right way and none of the wrong. That is, (19) could be spelled out as any of (20)-(23).

(20) dekhaliai 'You (hon.) saw him/his (nonhon.)'
(21) dekhlahunh 'You (nonhon.) saw him/his (hon.)'
(22) dekhalthunh 'He (hon.) saw you/yours (nonhon.)'
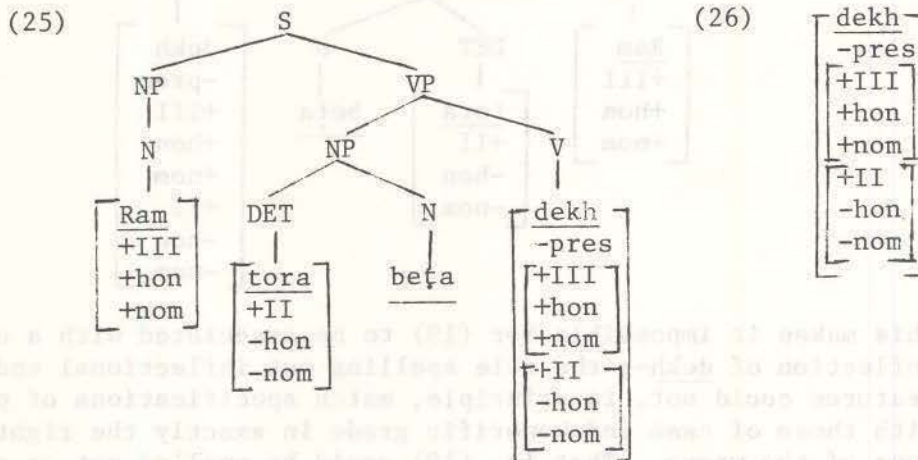(23) dekhlak 'He (nonhon.) saw you/yours (hon.)'

What are our alternatives? There are two obvious ones. The first is to allow the appropriate features to be copied from the

subject NP, spelled out as a verbal inflection, and deleted from the feature complex associated with the verb; the appropriate features may then be copied from an oblique object or genitive NP and be spelled out in their turn. By allowing feature-copying and spelling-out to proceed iteratively, this solution avoids the derivation of ambiguous feature complexes like (19).

There are, however, problems with this solution. First, it requires that a syntactic copying rule apply after a rule of morphology; the possibility that such a sequence of applications must ever be resorted to has been seriously questioned. Furthermore, some of the complex personal inflections in Maithili are highly fusional--they resist segmentation into two discrete personal terminations (for example, compare the complex inflections in (24a-c)); the above solution, however, requires uniformly agglutinative inflections.

(24) a. dekhalthinh   'He (hon.) saw him/his (hon.)'
     b. dekhlanh   'He (hon.) saw me/mine'
     c. dekhliainh   'I saw him/his (hon.)'

The second solution is the use of complex symbols of second order. With this device, the verb agreement transformation applying to (17) copies not single features, but feature complexes, which it embeds in the verb's complex symbol (producing (25)). Once this embedding has taken place, these feature complexes assume the role of regular features in the host complex--they are unordered, etc.

(25)

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                        S
           ┌────────────┴────────────┐
          NP                         VP
           │                 ┌────────┴────────┐
           N                NP                 V
           │           ┌─────┴─────┐           │
        ┌Ram ┐       DET          N        ┌dekh ┐
        │+III│        │            │        │-pres│
        │+hon│     ┌tora┐        beṭa      │+III │
        │+nom│     │+II │                  │+hon │
        └    ┘     │-hon│                  │+nom │
                   │-nom│                  ┌+II ┐
                   └    ┘                  │-hon│
                                           │-nom│
                                           └    ┘
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(26)
```
┌dekh ┐
│-pres│
│+III │
│+hon │
│+nom │
┌+II ┐
│-hon│
│-nom│
└    ┘
```

Their only distinguishing characteristic is that, unlike other features, they have internal structure. Now, observe that (26), unlike (19), isn't ambiguous--it uniquely represents (22), as desired.

This solution--the use of embedded complex symbols--avoids the practical and theoretical shortcomings of the iterative application solution; and it allows the Maithili facts to be cleanly described

(and similarly for any other language in which verbs agree with more
than one noun phrase). Whether higher-order complex symbols are
necessary for the description of natural languages is an empirical
question (whose answer I don't know); but it is clearly just a
consequence of the fact that English verbs agree only with their
subject that the need for this theoretical device hasn't been
countenanced.

It is just this device that will be employed in the following
sections toward the description of French clisis as an inflectional
phenomenon.

II. Clitics fulfilling selectional/subcategorization requirements within V'.

II.1. Pronominal clitics fulfilling selectional restrictions on V.

II.1.1. Selection and pronominal clitics.
Consider the following pairs of sentences.

(27) a. Jean trouve Marie.
     b. Jean la trouve.

(28) a. Jean téléphone à Marie.
     b. Jean lui téléphone.

(29) a. Jean donne le livre à Marie.
     b. Jean le lui donne.

Several facts are illustrated here. One is that in these sentences,
the kind and number of pronominal clitics that occur are clearly
determined by the verb. In sentence (27b), la fulfils the relational
role of direct object, required by trouver; in (28b), lui fulfils
the role of dative object, required by téléphoner; in (29b), le and
lui fulfil the respective roles of direct and indirect object
required by donner; similarly, the absence of pronominal clitics in
(30) is required by partir.

(30) Jean part.

These French verbs are, evidently, restricted not merely for categorial
context, but for the case of their complements. That is, in addition
to the subcategorization restriction [+__NP], trouver must also bear
a selectional restriction [+__+acc], since (27b) contrasts in
grammaticality with sentence (31):

(31) *Jean lui trouve.

Similarly, téléphoner must bear a selectional restriction [+__-acc]
(where [-acc] means 'dative') to account for the acceptability of

sentences like (28b) beside the unacceptability of (32):

(32) *Jean le téléphone.

Likewise, <u>donner</u> must be restricted as both [+__+acc] and [+__-acc]. Observe that if we include such selectional restrictions in the lexical specifications of French verbs, subcategorization restrictions on these verbs (e.g. [+__NP], [+__à NP]) actually become unnecessary, since they're predictable from the selectional restrictions.

Thus, the lexicon of a transformational grammar of French might very reasonably be thought to contain entries something like those in (33).

$$(33) \quad \begin{bmatrix} \text{trouver} \\ +V \\ +\_\_+acc \end{bmatrix} \quad \begin{bmatrix} \text{téléphoner} \\ +V \\ +\_\_-acc \end{bmatrix} \quad \begin{bmatrix} \text{donner} \\ +V \\ +\_\_+acc \\ +\_\_-acc \end{bmatrix}$$

Now, despite the obvious transitivity of <u>trouve</u> in (27a), the verb <u>la trouve</u> in (27b) is intransitive, as are <u>lui téléphone</u> and <u>le lui donne</u> in (28b) and (29b). In each case, it is clearly the presence of a clitic which alters the selectional (and hence subcategorization) restrictions on the verb. How can this alteration best be accounted for?

Let us assume, for the moment, the inclusion of the following tentative rule in the lexicon of French (here and henceforth, double-bracketing is used to represent complex symbols of second order):

(34) For any verb γ such that γ is [+__ αacc], there is a corresponding verb γ' that is like γ except in that [[αacc]] occurs in place of [+__αacc] in the complex symbol associated with γ'.
(3 further reformulations)

In accordance with (34), several other verbs would occur in the French lexicon, namely those in (35).

$$(35) \quad a. \begin{bmatrix} \text{trouver} \\ +V \\ [+acc] \end{bmatrix} \qquad b. \begin{bmatrix} \text{téléphoner} \\ +V \\ [-acc] \end{bmatrix}$$

$$c. \begin{bmatrix} \text{donner} \\ +V \\ [+acc] \\ +\_\_-acc \end{bmatrix} \qquad d. \begin{bmatrix} \text{donner} \\ +V \\ +\_\_+acc \\ [-acc] \end{bmatrix}$$

$$e. \begin{bmatrix} \text{donner} \\ +V \\ [+acc] \\ [-acc] \end{bmatrix}$$

Let us further assume that the third person feminine clitics receive
the feature compositions given in (36), and are available to the
following recursive spelling-out rule (37):

$$(36) \quad \begin{bmatrix} \underline{\text{la}} \\ +\text{ProNP} \\ +\text{acc} \end{bmatrix} \qquad \begin{bmatrix} \underline{\text{lui}} \\ +\text{ProNP} \\ -\text{acc} \end{bmatrix}$$

(37) For any verb γ, if γ is $[[\alpha\text{acc}]]$, then $[_V\gamma]$ is
replaced by $[_V\beta\gamma]$, which is $[+\text{ProNP}]$ and inherits
all features but $[[\alpha\text{acc}]]$ from γ, where β is
$\begin{bmatrix} +\text{ProNP} \\ \alpha\text{acc} \end{bmatrix}$. (3 further reformulations)

(37) would allow (35a)-(35e) to be supplanted by (38a)-(38e) at a
post-transformational stage of derivation:

$$(38) \quad a. \begin{bmatrix} \underline{\text{la trouver}} \\ +V \\ +\text{ProNP} \end{bmatrix} \qquad b. \begin{bmatrix} \underline{\text{lui téléphoner}} \\ +V \\ +\text{ProNP} \end{bmatrix}$$

$$c. \begin{bmatrix} \underline{\text{la donner}} \\ +V \\ +\text{ProNP} \\ +\_\_-\text{acc} \end{bmatrix} \qquad d. \begin{bmatrix} \underline{\text{lui donner}} \\ +V \\ +\text{ProNP} \\ +\_\_+\text{acc} \end{bmatrix}$$

$$e. \begin{bmatrix} \underline{\text{la lui donner}} \\ +V \\ +\text{ProNP} \end{bmatrix}$$

The lexical rule (34) and the spelling-out rule (37) are the
kinds of rules I envision for the introduction of inflectional
features onto underlying lexical expressions and the spelling out of
these inflections with clitics. (34) is, however, too weak in its
present statement—it doesn't allow verbs to be marked with the full
range of features by which the different pronominal clitics may be
distinguished. Similarly, (37) is too powerful a formulation of the
spelling-out process—(37) allows the ungrammatical inflection in
(39):

$$(39) \quad * \begin{bmatrix} \underline{\text{lui la donner}} \\ +V \\ +\text{ProNP} \end{bmatrix}$$

How must (34) and (37) be revised if they are to provide for the
proper spelling-out of all and only possible groups?

II.1.2. <u>A lexical rule and a spelling-out rule</u>.
First, these rules must be made to jointly embody all of the
cooccurrence and ordering restrictions known to govern surface

pronominal clitic sequences. There are four such restrictions, which may be summarized as follows:

(i) No two clitics that are nonthird person or reflexive[6] may cooccur in a clitic sequence (henceforth, the reflexive clitic se will be considered devoid of any inherent person specification (and hence nonthird person), since it may, by a subject-agreement allomorphy rule, be superficially realized as any of me, te, nous, vous, or se); that is, all of the sentences in (40) are unacceptable:

$$(40) \quad \text{*Jean} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \text{présente.}$$

(ii) A nonthird person clitic may cooccur with a third person clitic provided that the former is dative, the latter, accusative; thus, the sentences in (41) are acceptable, while those in (42) aren't.

$$(41) \quad \text{Jean} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \left\{ \begin{matrix} \text{le} \\ \text{la} \\ \text{les} \end{matrix} \right\} \text{présente.}$$

$$(42) \quad \text{a.} \quad \text{*Jean} \left\{ \begin{matrix} \text{lui} \\ \text{leur} \end{matrix} \right\} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \text{présente.}$$

$$\quad \text{b.} \quad \text{*Jean} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \left\{ \begin{matrix} \text{lui} \\ \text{leur} \end{matrix} \right\} \text{présente.}$$

(iii) A nonthird person clitic occurring with a third person clitic must precede it; thus, in contrast with (41):

$$(43) \quad \text{*Jean} \left\{ \begin{matrix} \text{le} \\ \text{la} \\ \text{les} \end{matrix} \right\} \left\{ \begin{matrix} \text{me} \\ \text{te} \\ \text{nous} \\ \text{vous} \\ \text{se} \end{matrix} \right\} \text{présente.}$$

(iv) Two third person clitics may cooccur in a clitic sequence provided the accusative one precedes the dative; thus, the sentences in (44) are acceptable, but those in (45) aren't:

(44) Jean $\left\{\begin{array}{l}\text{le}\\\text{la}\\\text{les}\end{array}\right\}\left\{\begin{array}{l}\text{lui}\\\text{leur}\end{array}\right\}$ présente.

(45) *Jean $\left\{\begin{array}{l}\text{lui}\\\text{leur}\end{array}\right\}\left\{\begin{array}{l}\text{le}\\\text{la}\\\text{les}\end{array}\right\}$ présente.

More restrictive versions of (34) and (37) must be found which have the effect of (i)-(iv). In order to facilitate these restate-ments, the following feature compositions will be assumed for the pronominal clitics of French (here and henceforth, '$\pm$' is to be understood disjunctively: '+' or '-'):

(46)

$$
\begin{bmatrix}
\text{me}\\
\text{+ProNP}\\
\pm\text{acc}\\
-\text{III}\\
+\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
+\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{te}\\
\text{+ProNP}\\
\pm\text{acc}\\
-\text{III}\\
-\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
+\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{nous}\\
\text{+ProNP}\\
\pm\text{acc}\\
-\text{III}\\
+\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
-\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{vous}\\
\text{+ProNP}\\
\pm\text{acc}\\
-\text{III}\\
-\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
-\text{sg}
\end{bmatrix}
$$

$$
\begin{bmatrix}
\text{se}\\
\text{+ProNP}\\
\pm\text{acc}\\
-\text{III}\\
-\text{I}\\
+\text{refl}\\
\pm\text{fem}\\
\pm\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{le}\\
\text{+ProNP}\\
+\text{acc}\\
+\text{III}\\
-\text{I}\\
-\text{refl}\\
-\text{fem}\\
+\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{la}\\
\text{+ProNP}\\
+\text{acc}\\
+\text{III}\\
-\text{I}\\
-\text{refl}\\
+\text{fem}\\
+\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{les}\\
\text{+ProNP}\\
+\text{acc}\\
+\text{III}\\
-\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
-\text{sg}
\end{bmatrix}
$$

$$
\begin{bmatrix}
\text{lui}\\
\text{+ProNP}\\
-\text{acc}\\
+\text{III}\\
-\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
+\text{sg}
\end{bmatrix}
\begin{bmatrix}
\text{leur}\\
\text{+ProNP}\\
-\text{acc}\\
+\text{III}\\
-\text{I}\\
-\text{refl}\\
\pm\text{fem}\\
-\text{sg}
\end{bmatrix}
$$

(34) may now be restated as in (47):

(47)   For any verb γ such that γ is [+ αacc], there are
corresponding verbs like γ except in that

$$
\begin{bmatrix}
\begin{bmatrix}
\alpha\text{acc}\\
\pm\text{III}\\
\pm\text{I}\\
\pm\text{refl}\\
\pm\text{fem}\\
\pm\text{sg}
\end{bmatrix}
\end{bmatrix}
$$
occurs in place of [+ αacc]
in their associated complex symbol.

(2 further reformulations)

By (47), the following four verbs would all occur in the lexicon of French:

(48) a.

$$\begin{bmatrix} \text{trouver} \\ +V \\ \begin{bmatrix} +\text{acc} \\ -\text{III} \\ -\text{I} \\ +\text{refl} \\ \pm\text{fem} \\ \pm\text{sg} \end{bmatrix} \end{bmatrix}$$

b.

$$\begin{bmatrix} \text{trouver} \\ +V \\ \begin{bmatrix} +\text{acc} \\ +\text{III} \\ -\text{I} \\ -\text{refl} \\ +\text{fem} \\ +\text{sg} \end{bmatrix} \end{bmatrix}$$

c.

$$\begin{bmatrix} \text{trouver} \\ +V \\ \begin{bmatrix} +\text{acc} \\ +\text{III} \\ -\text{I} \\ -\text{refl} \\ -\text{fem} \\ +\text{sg} \end{bmatrix} \end{bmatrix}$$

$$\begin{bmatrix} \text{trouver} \\ +V \\ \begin{bmatrix} +\text{acc} \\ +\text{III} \\ -\text{I} \\ -\text{refl} \\ \pm\text{fem} \\ -\text{sg} \end{bmatrix} \end{bmatrix}$$

The spelling-out rule (37) must be restated as in (49):

(49)

$$\begin{bmatrix} z \\ +V \\ \begin{bmatrix} \alpha\text{acc} \\ \beta\text{III} \\ \gamma\text{I} \\ \delta\text{refl} \\ \varepsilon\text{fem} \\ \zeta\text{sg} \end{bmatrix} \end{bmatrix} \quad \text{is obligatorily rewritten} \quad \begin{bmatrix} \text{x z} \\ +V \\ +\text{ProNP} \\ \beta\text{III} \end{bmatrix},$$

where x is $\begin{bmatrix} +\text{ProNP} \\ \alpha\text{acc} \\ \beta\text{III} \\ \gamma\text{I} \\ \delta\text{refl} \\ \varepsilon\text{fem} \\ \zeta\text{sg} \end{bmatrix}$. Condition: If z is [+ProNP], then x is [αIII] and z is [+III].

(2 further reformulations)

The condition on (49), which effects (i)-(iv) above, guarantees that a pronominal clitic that is to be spelled out on a verb already bearing a pronominal clitic must be either third person and accusative or nonthird person and dative, and that the clitic already on the verb must be third person; if this isn't the case, then the verb cannot already have a pronominal clitic. By (49),[7] the different verbs in (48a)-(48d) are spelled out as (50a)-(50d):

(50) a.

$$\begin{bmatrix} \text{se trouver} \\ +V \\ +\text{ProNP} \\ -\text{III} \end{bmatrix}$$

b.

$$\begin{bmatrix} \text{la trouver} \\ +V \\ +\text{ProNP} \\ +\text{III} \end{bmatrix}$$

(50) c. $\begin{bmatrix} \underline{\text{le trouver}} \\ +V \\ +ProNP \\ +III \end{bmatrix}$ d. $\begin{bmatrix} \underline{\text{les trouver}} \\ +V \\ +ProNP \\ +III \end{bmatrix}$

The reformulation of (37) as (49) has the effect of all of (i)-(iv);
I shall briefly demonstrate that this is so.

Suppose that we attempt to derive any of the sentences in (40)
by means of (47) and (49); if (49) prevents us from doing so, then
we will have shown that (49) embodies restriction (i). We might go
about an attempt to derive (40) in either of two ways--first, by
assuming the clitics in the first position in (40) to fulfil the
dative selectional restriction on présenter, and by assuming those
in second position to fulfil the accusative one; and second, by
assuming just the reverse selectional roles for the two columns of
clitics in (40). In either instance, présenter would have to have
the underlying form in (51), as provided for by (47).

(51)
$$\begin{bmatrix} \underline{\text{présenter}} \\ +V \\ \begin{bmatrix} +acc \\ -III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{bmatrix} \\ \begin{bmatrix} -acc \\ -III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{bmatrix} \end{bmatrix}$$

(52)
$$\begin{Bmatrix} \underline{me} \\ \underline{te} \\ \underline{nous} \\ \underline{vous} \\ \underline{se} \end{Bmatrix} \underline{\text{présenter}}$$
$$\begin{bmatrix} +V \\ +ProNP \\ -III \\ \begin{bmatrix} -acc \\ -III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{bmatrix} \end{bmatrix}$$

If the second position clitics were accusative, then in the
course of the putative derivation of (40), (51) would have to be
spelled out as (52) by (49). If we were now to attempt to produce the
verbs in (40) by a further spelling-out by (49), we'd fail, since (52)
would be [+ProNP], but [-III], contrary to the condition on (49). If
we take the second position clitics as dative, then me/te/nous/vous/se
présenter would have the feature composition in (53):

16

$$(53) \quad \left[\left\{ \begin{array}{c} \underline{me} \\ \underline{te} \\ \underline{nous} \\ \underline{vous} \\ \underline{se} \\ +V \\ +ProNP \\ -III \\ \left[\begin{array}{c} +acc \\ -III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{array} \right] \end{array} \right\} \underline{pr\acute{e}senter} \right]$$
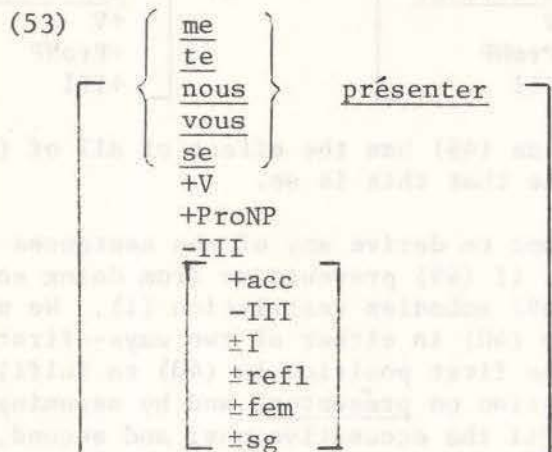
If we were to attempt the spelling-out of any accusative nonthird person clitic onto (53) by (49), we would again fail, since any such accusative clitic would be [αacc, $-\alpha$III], but (53) is [+ProNP], contrary to the condition on (49). Thus, (49) expresses restriction (i), since the groups in (40) aren't generable.

    Suppose now that we attempt to derive one of the sentences in (42a, b) using (49); if we are prevented from doing so, then we will have shown that (49) expresses (ii). Consider the (42b) sentences. In these, nonthird person accusative clitics must apparently be spelled out onto verbs of the following form:

$$(54) \quad \left[\left\{ \begin{array}{c} \underline{lui} \\ \underline{leur} \\ +V \\ +ProNP \\ +III \\ \left[\begin{array}{c} +acc \\ -III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{array} \right] \end{array} \right\} \underline{pr\acute{e}senter} \right]$$
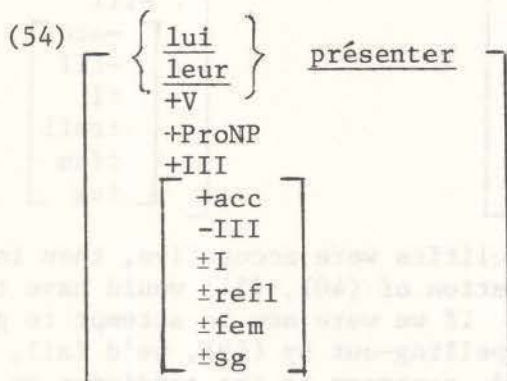
But, contrary to the condition on (49), the nonthird person accusative clitics are [αacc, $-\alpha$III], while (54) is [+ProNP]. Thus, the verbs in (42b) cannot be derived using the lexical rule (47) and the spelling-out rule (49). Now consider the (42a) sentences. In these, third person dative clitics must apparently be spelled out onto verbs of the form:

(55)

$$\left[\begin{array}{l} \left\{\begin{array}{l} \underline{me} \\ \underline{te} \\ \underline{nous} \\ \underline{vous} \\ \underline{se} \end{array}\right\} \underline{présenter} \\ +V \\ +\text{ProNP} \\ -\text{III} \\ \left[\begin{array}{l} -\text{acc} \\ +\text{III} \\ -\text{I} \\ -\text{refl} \\ \pm\text{fem} \\ \pm\text{sg} \end{array}\right] \end{array}\right]$$
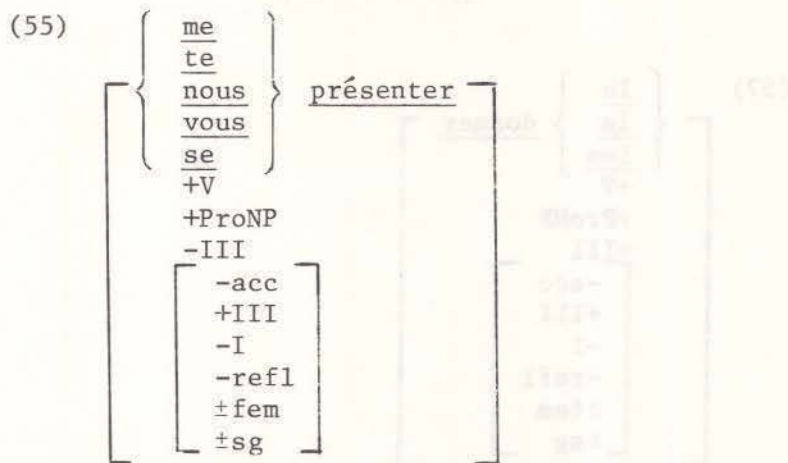
But again, contrary to the condition on the spelling-out rule, the third person dative clitics are [αacc, -αIII], while (55) is [+ProNP]. Therefore, (49) embodies restriction (ii).

To demonstrate that (49) captures (iii), we must show that groups such as those in (43) aren't derivable. In the derivation of the sequences in (43), third person accusative clitics would apparently be spelled out onto verbs of the following form:

(56)

$$\left[\begin{array}{l} \left\{\begin{array}{l} \underline{me} \\ \underline{te} \\ \underline{nous} \\ \underline{vous} \\ \underline{se} \end{array}\right\} \underline{donner} \\ +V \\ +\text{ProNP} \\ -\text{III} \\ \left[\begin{array}{l} +\text{acc} \\ +\text{III} \\ -\text{I} \\ -\text{refl} \\ \pm\text{fem} \\ \pm\text{sg} \end{array}\right] \end{array}\right]$$
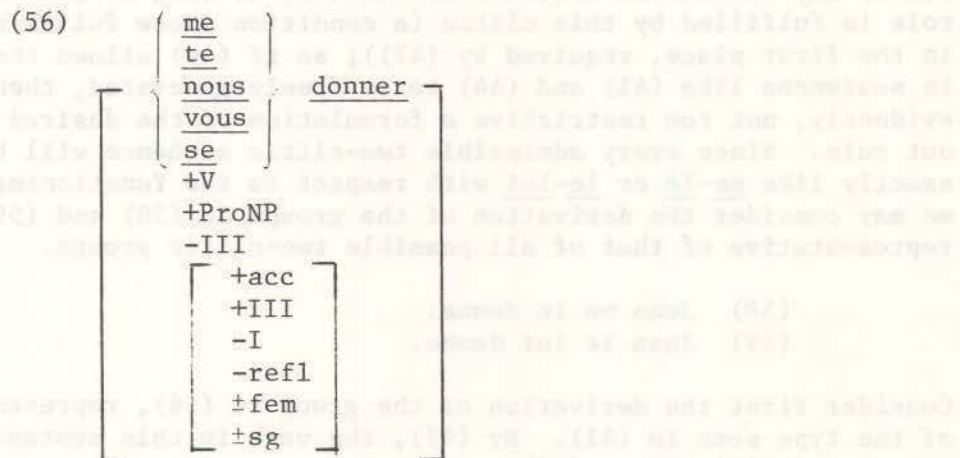
Observe, however, that (56), since it is [+ProNP, -III], would violate the condition on (49). Thus, (49) captures restriction (iii).

To demonstrate that (49) embodies the final restriction (iv) on clitic sequences, it suffices to show the underivability of the groups in (45). In the formation of such sequences, third person dative clitics would have to be spelled out onto complex verbs like (57):

$$(57) \quad \left[\begin{array}{c} \left\{ \begin{array}{c} \underline{\text{le}} \\ \underline{\text{la}} \\ \underline{\text{les}} \end{array} \right\} \underline{\text{donner}} \\ \text{+V} \\ \text{+ProNP} \\ \text{+III} \\ \left[\begin{array}{c} \text{-acc} \\ \text{+III} \\ \text{-I} \\ \text{-refl} \\ \pm \text{fem} \\ \pm \text{sg} \end{array} \right] \end{array} \right]$$

But this spelling-out is blocked by the condition on (49): the third person dative clitics are [αacc, -αIII], while (57) is [+ProNP]. Thus, (49) provides for restriction (iv).

Clearly, the spelling-out rule (49) is restrictive enough to capture every cooccurrence and ordering restriction known to govern French pronominal clitic sequences. On the other hand, (49) doesn't rule out any permissible clitic sequences: inspection will convince the reader that the condition on (49) doesn't prohibit the spelling-out of any one-clitic sequence of clitics, as long as some selectional role is fulfilled by this clitic (a condition whose fulfillment is, in the first place, required by (47)); so if (49) allows the groups in sentences like (41) and (44) to be freely generated, then it is, evidently, not too restrictive a formulation of the desired spelling-out rule. Since every admissible two-clitic sequence will behave exactly like me-le or le-lui with respect to the functioning of (49), we may consider the derivation of the groups in (58) and (59) as representative of that of all possible two-clitic groups.

     (58)   Jean me le donne.
     (59)   Jean le lui donne.

Consider first the derivation of the group in (58), representative of the type seen in (41). By (47), the verb in this sentence would appear underlyingly as (60):

$$(60) \quad \left[\begin{array}{c} \underline{\text{donner}} \\ \text{+V} \\ \left[\begin{array}{c} \text{-acc} \\ \text{-III} \\ \text{+I} \\ \text{-refl} \\ \pm \text{fem} \\ \text{+sg} \end{array} \right] \\ \left[\begin{array}{c} \text{+acc} \\ \text{+III} \\ \text{-I} \\ \text{-refl} \\ \text{-fem} \\ \text{+sg} \end{array} \right] \end{array} \right]$$

(49) allows the free spelling-out of <u>le</u> onto (60) to form the complex verb in (61).

(61)
$$
\begin{bmatrix}
\text{le donner} \\
+V \\
+ProNP \\
+III \\
\begin{bmatrix}
-acc \\
-III \\
+I \\
-refl \\
\pm fem \\
+sg
\end{bmatrix}
\end{bmatrix}
$$

Since <u>me</u> is [-acc, -III], the condition on (49) doesn't forbid its spelling-out onto (61) to form the complex verb in (62).

(62)
$$
\begin{bmatrix}
\text{me le donner} \\
+V \\
+ProNP \\
-III
\end{bmatrix}
$$ [8]

Now consider the derivation of the group in sentence (59). By (47), the verb in this sentence would appear underlyingly as (63).

(63)
$$
\begin{bmatrix}
\text{donner} \\
+V \\
\begin{bmatrix}
+acc \\
+III \\
-I \\
-refl \\
-fem \\
+sg
\end{bmatrix} \\
\begin{bmatrix}
-acc \\
+III \\
-I \\
-refl \\
\pm fem \\
+sg
\end{bmatrix}
\end{bmatrix}
$$

(49) allows the free spelling-out of <u>lui</u> onto <u>donner</u> to form the verb in (64).

(64)
$$
\begin{bmatrix}
\text{lui donner} \\
+V \\
+ProNP \\
+III \\
\begin{bmatrix}
+acc \\
+III \\
-I \\
-refl \\
-fem \\
+sg
\end{bmatrix}
\end{bmatrix}
$$

Once again, since le is [+acc, +III], its spelling-out onto (64) as in (65) isn't blocked by the condition on (49).

$$(65) \quad \left[\begin{array}{l} \underline{\text{le lui donner}} \\ +V \\ +\text{ProNP} \\ +III \end{array} \right]$$

Again, since every permissible two-clitic sequence behaves either like that in (58) or that in (59) with respect to the condition on rule (49), it may therefore be concluded that the spelling-out rule isn't too restrictive to produce all possible pronominal clitic sequences.

II.1.3. A generalization of the spelling-out rule to V".

There is, of course, one very obvious shortcoming with rule (49), namely that French pronominal clitics aren't always clitic to the verb on which they are selectionally dependent. Consider sentences (66)–(68):

(66) Jean l'a aidé.
(67) Jean lui est présenté.
(68) Jean lui a été présenté par Marie.

In the first sentence, the clitic le fulfils a selectional restriction on aider, not on the verb avoir; in the second sentence, a passive, lui is proclitic to est, although it fulfils a selectional requirement of présenter; and in the third sentence, lui is separated by two verbs from its governing verb. Clearly, (49) is inadequate to describe the distribution of clitics in sentences such as (66)–(68).

Therefore, a generalization of the spelling-out rule (49) to entire V" constituents is necessary. That is, assuming that the French predicate has the constituent structure in (69), the spelling-out rule must be allowed to place clitics on the first V under V".

(69)

PRED

AUX   V"

TNS (M) (V)   V"

          avoir_perf   (V)   V'

                       être_pass   V   (...NP...ADV)
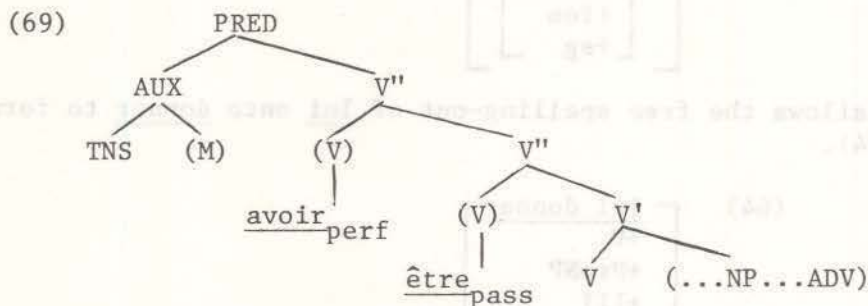
(70) is the reformulation in question. (Here and henceforth, 'W', 'X', 'Y', and 'Z' are to be syntactic variables; 'B' and "B'" are to be variables ranging only over labelled brackets.)

(70) For any V" analyzable as both $[X[_V,[_V \underline{z}]Y]]$ and

$[B[_V \begin{bmatrix} \underline{w} \\ -\text{pple} \end{bmatrix}]\underline{B}' Z]$, if the complex symbol assoc-

iated with $\underline{z}$ contains a complex symbol $\begin{bmatrix} \alpha\text{acc} \\ \beta\text{III} \\ \gamma\text{I} \\ \delta\text{refl} \\ \epsilon\text{fem} \\ \zeta\text{sg} \end{bmatrix}$

of second order, then this must be eliminated
from $\underline{z}$, and $[_V \underline{w}]$ must be replaced with $[_V \underline{x} \underline{w}]$,
which is [+V, +PronP, βIII] and which inherits
all remaining features from $\underline{w}$, where $\underline{x}$ is

$\begin{bmatrix} +\text{PronP} \\ \alpha\text{acc} \\ \beta\text{III} \\ \gamma\text{I} \\ \delta\text{refl} \\ \epsilon\text{fem} \\ \zeta\text{sg} \end{bmatrix}$.

Condition: If $\underline{w}$ is [+PronP],
then $\underline{x}$ is [αIII] and $\underline{w}$ is
[+III].

(1 further reformulation)

Given this reformulation of the proclitic pronoun spelling-out
rule, the structures (71a, b) may be respectively realized as in
(72a, b). (Here and henceforth, as a notational convenience, 'clitic
features' will be used to represent the corresponding six-feature
complexes of second order--for example, [+me] is to represent the
complex symbol [±acc, −III, +I, −refl, ±fem, +sg]; similarly for the
other clitic pronouns. A similar convention will be used for the
adverbial clitics):[9]

(71) a.

```
                    S
              /           \
            NP            PRED
            |           /      \
            N        AUX        V"
            |         |        /    \
          Jean       TNS      V      V'
                      |       |      |
                     Pres  ┌avoir┐   V
                           │ +V  │   |
                           └-pple┘ ┌aider ┐
                                   │ +V   │
                                   │+pple │
                                   └ [+le]┘
```

(71) b.

```
                    S
            _____|_____
          NP               PRED
          |           _____|_____
          N         AUX           V"
          |          |        _____|_____
        Jean        TNS      V          V'
                     |        |       ___|___
                    Pres   ┌─être─┐   V      PP
                           │ +V   │   │      /\
                           │ -pple│   │   par Marie
                           └──────┘   │
                                  ┌─présenter─┐
                                  │ +V        │
                                  │ +pple     │
                                  │ [+lui]    │
                                  └───────────┘
```

(72) a.

```
                    S
            _____|_____
          NP               PRED
          |           _____|_____
          N         AUX           V"
          |          |        _____|_____
        Jean        TNS      V          V'
                     |        |       ___|
                    Pres  ┌─le avoir─┐  V
                          │ +V       │  │
                          │ -pple    │  ┌─aider─┐
                          │ +ProNP   │  │ +V    │
                          │ +III     │  │ +pple │
                          └──────────┘  └───────┘
```

b.

```
                    S
            _____|_____
          NP                PRED
          |           _____|_____
          N         AUX             V"
          |          |        _____|_____
        Jean        TNS      V            V'
                     |        |         ___|____
                    Pres ┌─lui être─┐   v       PP
                         │ +V       │   │       /\
                         │ -pple    │   │    par Marie
                         │ +ProNP   │ ┌─présenter─┐
                         │ +III     │ │ +V        │
                         └──────────┘ │ +pple     │
                                      └───────────┘
```
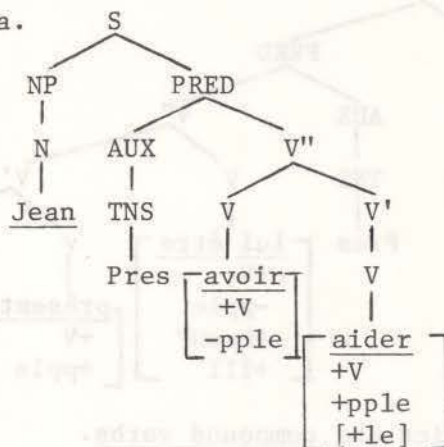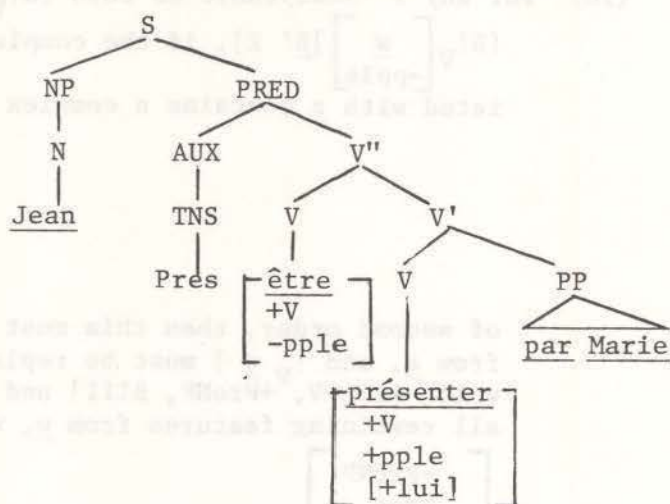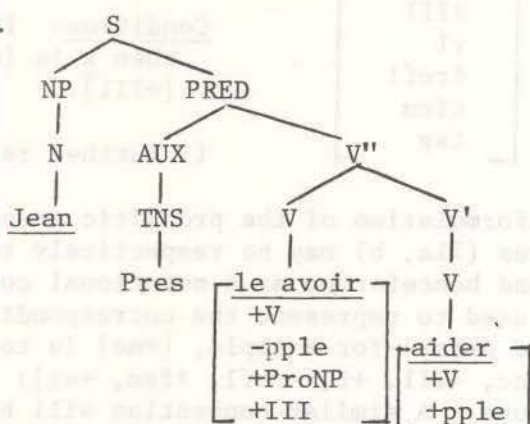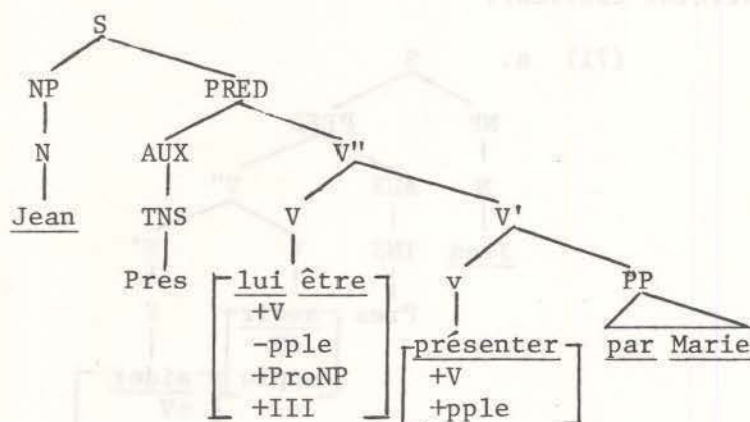
II.1.4. Pronominal clitics and compound verbs.

A further set of sentences must be dealt with in a complete treatment of the distribution of French pronominal clitics. Consider the following sentences:

(73) a.   Elle fera manger ce gâteau à Jean.
      b.   Elle le fera manger à Jean.
      c.   Elle lui fera manger ce gâteau.
      d.   Elle le lui fera manger.
      e. *Elle fera le manger à Jean.
      f. *Elle fera lui manger ce gâteau.
      g. *Elle fera le lui manger.
      h. *Elle le fera lui manger.
      i. *Elle lui fera le manger.

Compound verbs such as faire manger in (73a-d) have been variously
analyzed. Kayne (1975:211-17) asserts that such compound verb
constructions as faire-V, laisser-V̇, voir-V, and so on, result from
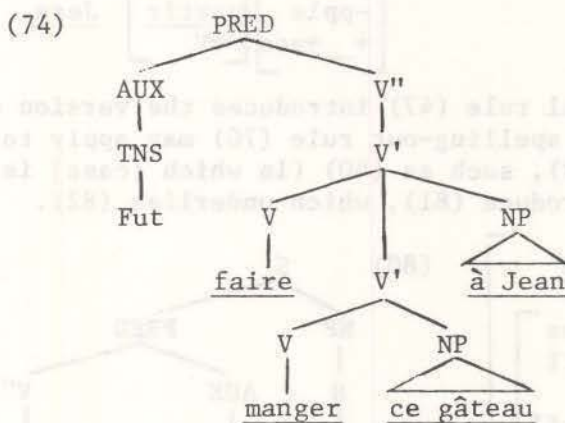a transformational union, since he assumes the two verbs originate
in different clauses in deep structure (this, incidentally, forces
Kayne to assume the extrinsic ordering of 'faire-insertion' before
his clitic-placement transformation); but such constructions might
well be argued to arise underlyingly (see footnote 9). I shall for
the moment assume that the latter approach is correct and that the
proper surface constituent analysis of the predicate of (73a) is as
in (74).

(74)

```
                        PRED
                   /            \
             AUX                  V"
              |                    |
             TNS                  V'
              |              /           \
             Fut          V                NP
                          |              /    \
                        faire         /        à Jean
                                    V'
                              /          \
                            V              NP
                            |            /    \
                         manger      ce gâteau
```

By letting faire have at least the feature composition in (75)
(where [case] is realized as the highest relation in the hierarchy
(76) for which the head verb of faire's complement isn't
selectionally restricted[10]), many otherwise peculiar facts about
the distribution of clitics in compound verb constructions can be
neatly provided for.

(75) ⎡ faire ⎤   (76)   +acc
      ⎢ +V   ⎥   -acc (i.e. dative)
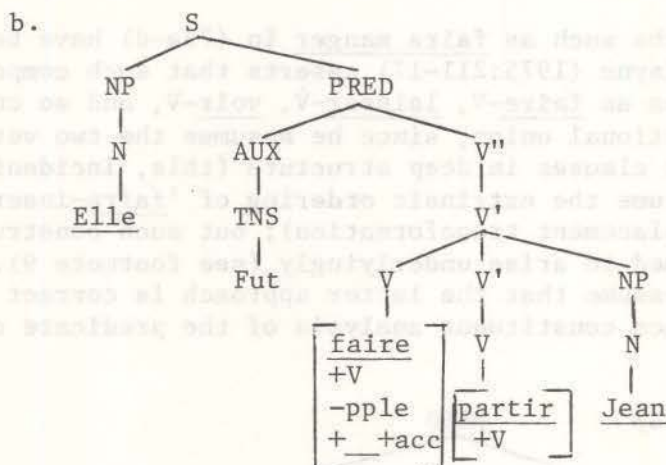   ⎣ +__case ⎦   instr (= par NP)
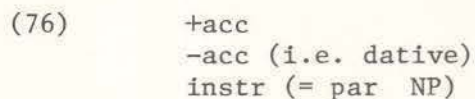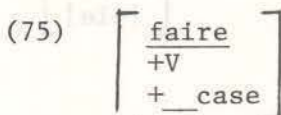
For example, if an intransitive verb such as partir is the head
verb of faire's verbal complement, then faire will, in this instance,
be realized as in (77), since [+acc] is the highest relation in (76)
for which partir isn't selectionally restricted.

(77) $\begin{bmatrix} \underline{faire} \\ +V \\ +\underline{\quad}\ +acc \end{bmatrix}$

Hence the accusative object (<u>Jean</u>) of <u>faire</u> in (78).

(78)   a.   Elle fera partir Jean.

b.
```
                    S
          ┌─────────┴──────────┐
         NP                   PRED
          │          ┌─────────┴────────┐
          N         AUX               V''
          │          │                 │
        Elle        TNS               V'
                     │         ┌───────┴────────┐
                    Fut       V'               NP
                        ┌──────┴─────┐          │
                        V           V'          N
                        │           │           │
                     ┌──────┐   ┌───────┐     Jean
                     │faire │   │       │
                     │+V    │   │partir │
                     │-pple │   │+V     │
                     │+__+acc│  └───────┘
                     └──────┘
```

Similarly, if the lexical rule (47) introduces the version of <u>faire</u>
given in (79), then the spelling-out rule (70) may apply to a
structure containing (79), such as (80) (in which [case] is again
realized as [+acc]) to produce (81), which underlies (82).

(79) $\begin{bmatrix} \underline{faire} \\ +V \\ \begin{bmatrix} case \\ +III \\ -I \\ -refl \\ -fem \\ +sg \end{bmatrix} \end{bmatrix}$
(80)
```
                    S
          ┌─────────┴──────────┐
         NP                   PRED
          │          ┌─────────┴────────┐
          N         AUX               V''
          │          │                 │
        Elle        TNS               V'
                     │         ┌───────┴────────┐
                    Fut       V'               V
                        ┌──────┴─────┐          │
                     ┌──────┐     ┌───────┐
                     │faire │     │partir │
                     │+V    │     │+V     │
                     │-pple │     └───────┘
                     │[+le] │
                     └──────┘
```

(81)

```
                    S
         _____|_____
        NP                     PRED
        |              _____|_____
        N             AUX                V"
        |              |                  |
       Elle           TNS                V'
        |              |          _____|_____
                      Fut         V              V'
                                  |              |
                             ┌─────────┐         V
                             │ le faire│         |
                             │ +V      │    ┌────────┐
                             │ -pple   │    │ partir │
                             │ +ProNP  │    │ +V     │
                             │ +III    │    └────────┘
                             └─────────┘
```
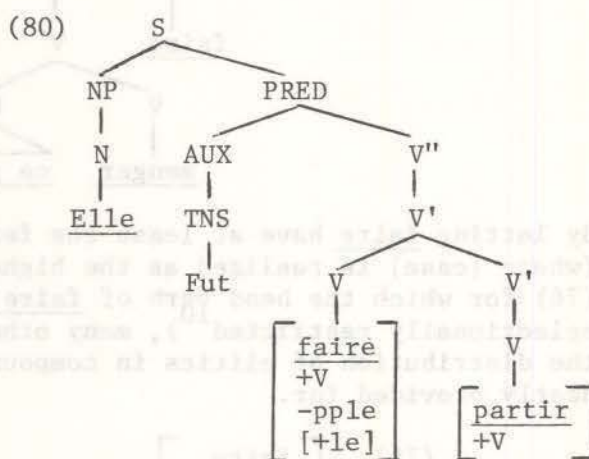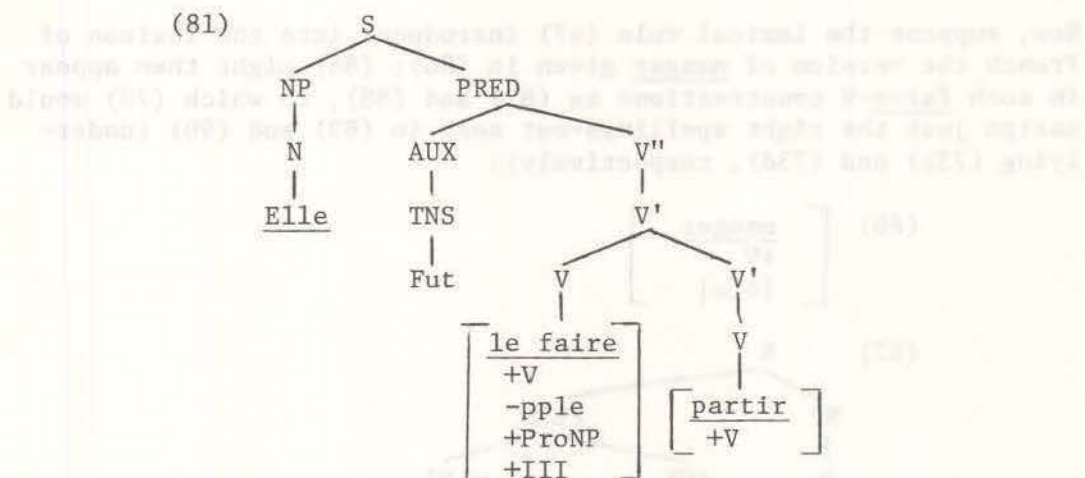
(82)   Elle le fera partir.

The clitic distribution seen in (73b-d) follows automatically
from these assumptions; and the distribution in (73e-i) is automa-
tically ruled out. That is, if _manger_ is the head verb of _faire_'s
verbal complement, then _faire_ will, in this case, be selectionally
restricted by the feature [+__-acc], since [-acc] is the highest
relation in (76) for which _manger_ isn't selectionally restricted.
(This accounts for the dative object (à Jean) in (74).)   (79) is
accordingly realized as (83) in a structure such as (84); the spelling-
out rule (70) converts (84) into (85) (which underlies (73c)).

(83)
```
┌────────┐
│ faire  │
│ +V     │
│ -acc   │
│ +III   │
│ -I     │
│ -refl  │
│ -fem   │
│ +sg    │
└────────┘
```

(84)
```
                         S
              _____|_____
             NP                     PRED
             |              _____|_____
             N             AUX                V"
             |              |                  |
            Elle           TNS                V'
             |              |          _____|_____
                           Fut         V              V'
                                       |         _____|_____
                                  ┌─────────┐    V          NP
                                  │ faire   │    |           |
                                  │ +V      │ ┌────────┐  ce gâteau
                                  │ -pple   │ │ manger │
                                  │ [÷lui]  │ │ +V     │
                                  └─────────┘ │ +__+acc│
                                              └────────┘
```
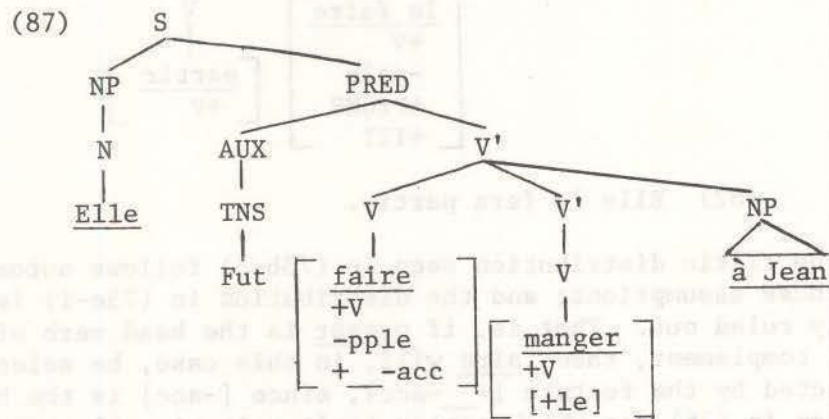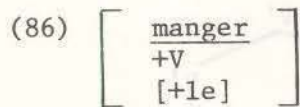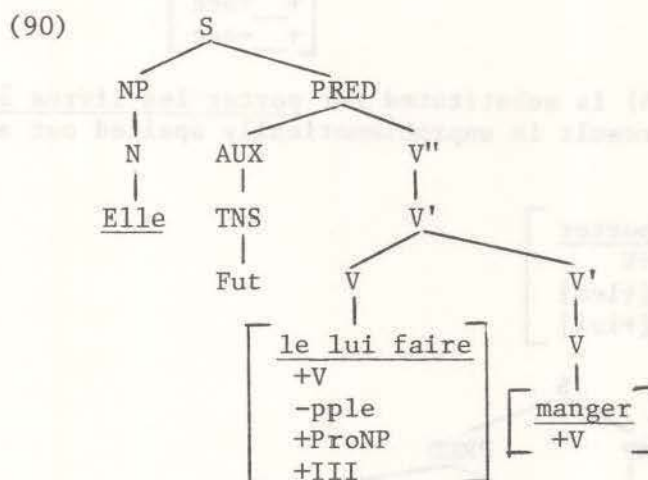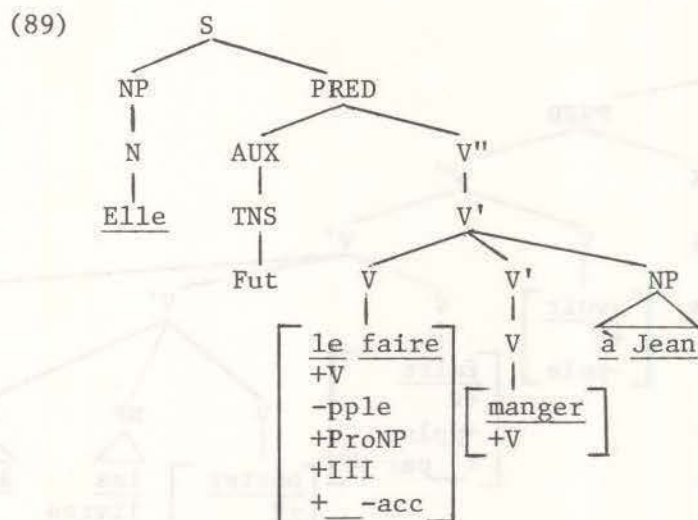
(85)
```
                    S
         _____|_____
        NP                     PRED
        |              _____|_____
        N             AUX                V"
        |              |                  |
       Elle           TNS                V'
        |              |          _____|_____
                      Fut         V              V'
                                  |         _____|_____
                             ┌─────────┐    V          NP
                             │lui faire│    |           |
                             │ +V      │ ┌────────┐ ce gâteau
                             │ -pple   │ │ manger │
                             │ +ProNP  │ │ +V     │
                             │ +III    │ │ +__+acc│
                             └─────────┘ └────────┘
```
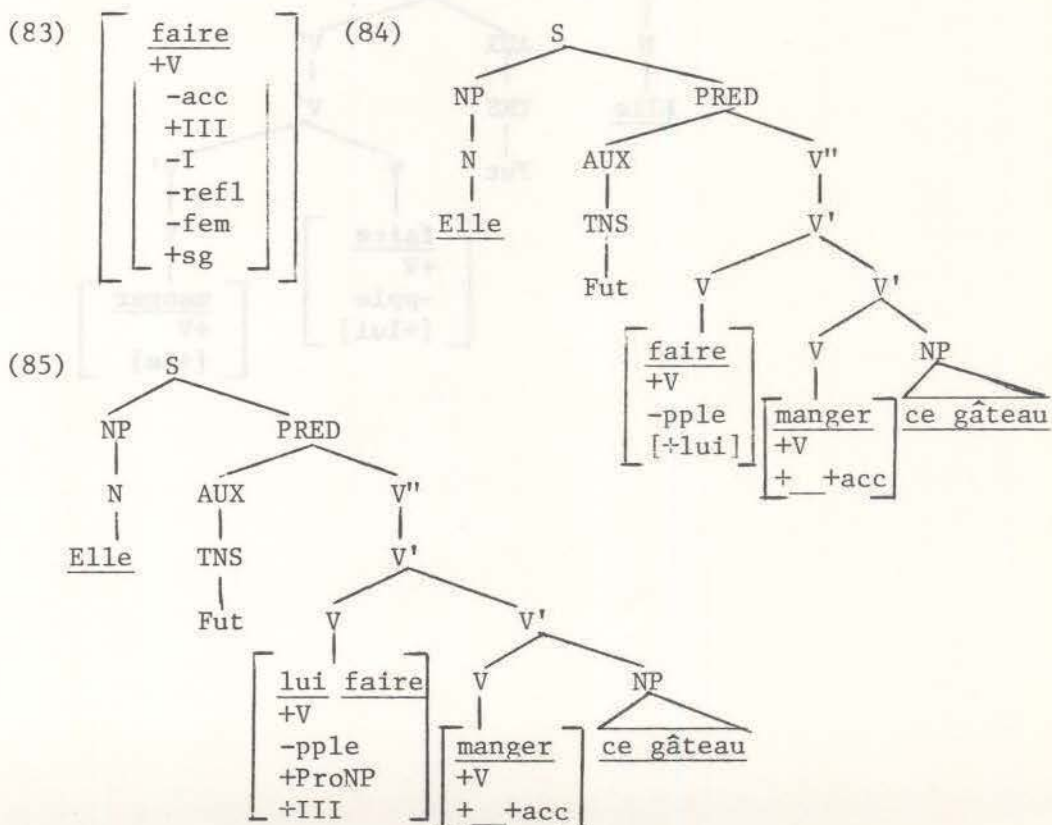
Now, suppose the lexical rule (47) introduces into the lexicon of
French the version of manger given in (86); (86) might then appear
in such faire-V constructions as (87) and (88), to which (70) would
assign just the right spellings-out seen in (89) and (90) (under-
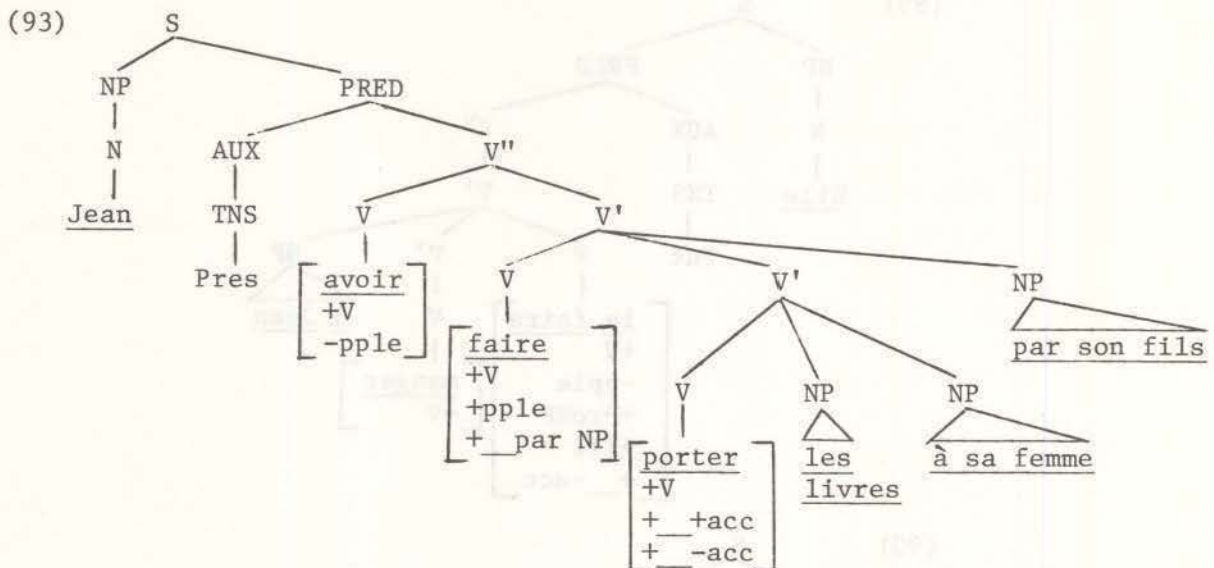lying (73b) and (73d), respectively):

(86) $\begin{bmatrix} \underline{manger} \\ +V \\ [+le] \end{bmatrix}$

(87)

```
                  S
           ┌──────┴──────┐
          NP            PRED
           │        ┌────┴────┐
           N       AUX        V'
           │        │    ┌─────┴──────┐
         Elle      TNS   V           V'        NP
                    │     │           │       ╱╲
                   Fut  ┌─────┐       ┌──────┐  à Jean
                        │faire│       │manger│
                        │ +V  │       │ +V   │
                        │-pple│       │[+le] │
                        │+__-acc│     └──────┘
                        └─────┘
```

(88)

```
                  S
           ┌──────┴──────┐
          NP            PRED
           │        ┌────┴────┐
           N       AUX        V''
           │        │          │
         Elle      TNS        V'
                    │     ┌────┴────┐
                   Fut    V        V'
                          │         │
                       ┌─────┐      V
                       │faire│      │
                       │ +V  │   ┌──────┐
                       │-pple│   │manger│
                       │[+lui]│  │ +V   │
                       └─────┘   │[+le] │
                                 └──────┘
```

(89)

```
                    S
          ┌─────────┴─────────┐
         NP                  PRED
          │          ┌────────┴────────┐
          N         AUX               V"
          │          │                 │
        Elle        TNS               V'
                     │        ┌────────┼────────┐
                    Fut       V        V'       NP
                              │        │        │
                         ┌─────────┐   V      à Jean
                         │ le faire│   │
                         │ +V      │ ┌──────┐
                         │         │ │manger│
                         │ -pple   │ │ +V   │
                         │ +ProNP  │ └──────┘
                         │ +III    │
                         │ + __-acc│
                         └─────────┘
```

(90)

```
                    S
          ┌─────────┴─────────┐
         NP                  PRED
          │          ┌────────┴────────┐
          N         AUX               V"
          │          │                 │
        Elle        TNS               V'
                     │        ┌────────┴────────┐
                    Fut       V                V'
                              │                 │
                      ┌────────────┐            V
                      │ le lui faire│           │
                      │ +V          │        ┌──────┐
                      │             │        │manger│
                      │ -pple       │        │ +V   │
                      │ +ProNP      │        └──────┘
                      │ +III        │
                      └────────────┘
```
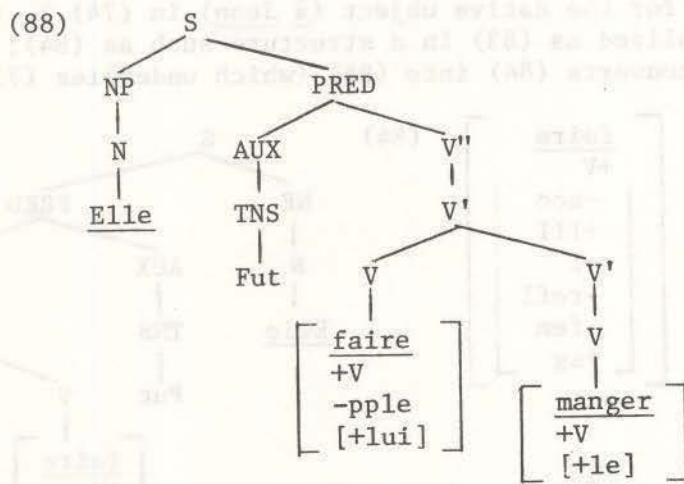
Notice that owing to the constituent analysis that is assumed here for compound verb constructions, the spelling-out of any of the groups in (73e-i) by (70) is impossible, since (70) spells clitics only onto the leftmost V in V".[11]

Finally, if, as in (91), the head verb of the verbal complement of faire is, for example, porter ([+__ +acc, +__ -acc]), then faire will be realized as (92). This accounts for the par-NP sister to faire in the structure (93) underlying (91).

(91) Jean a fait porter les livres à sa femme par son fils.

(92)
$$\begin{bmatrix} \underline{faire} \\ +V \\ +\text{__ par NP} \end{bmatrix}$$

(93)

```
                    S
          ┌─────────┴──────────┐
         NP                   PRED
          │          ┌─────────┴──────────┐
          N         AUX                  V"
          │          │          ┌─────────┴──────────┐
        Jean        TNS         V                   V'
                     │          │        ┌───────────┼──────────────┐
                   Pres    ┌─────┐        V          V'             NP
                           │avoir│        │     ┌─────┼─────┐      ┌──┴──┐
                           │+V   │   ┌──────┐    V    NP    NP   par son fils
                           │-pple│   │faire │    │    △     △
                           └─────┘   │+V    │  ┌──────┐ les  à sa femme
                                     │+pple │  │porter│ livres
                                     │+__par NP│+V    │
                                     └──────┘  │+__+acc│
                                               │+__-acc│
                                               └──────┘
```

Observe that if (94) is substituted for porter les livres à sa femme in (93), then the result is unproblematically spelled out as (95) by (70).[12]

(94)
$$\begin{bmatrix} porter \\ +V \\ [+les] \\ [+lui] \end{bmatrix}$$

(95)

```
                    S
          ┌─────────┴──────────┐
         NP                   PRED
          │          ┌─────────┴──────────┐
          N         AUX                  V"
          │          │          ┌─────────┴──────────┐
        Jean        TNS         V                   V'
                     │     ┌──────────┐     ┌─────────┼──────┐
                   Pres    │les lui avoir│   V        V'     NP
                           │+V          │   │    ┌────┴──┐   △
                           │-pple       │ ┌──────┐ V   par son
                           │+ProNP      │ │faire │ │    fils
                           │+III        │ │+V    │ │
                           └──────────┘ │+pple │ ┌──────┐
                                         │+__par NP│porter│
                                         └──────┘  │+V    │
                                                   └──────┘
```
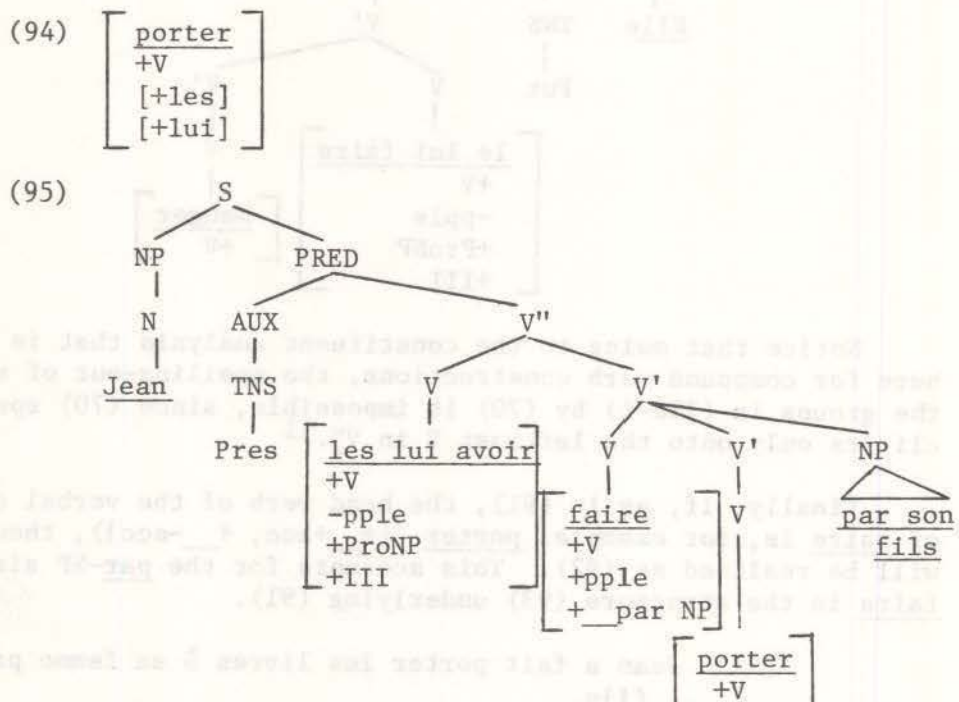
II.2. Pronominal clitics fulfilling selectional restrictions on non-verbal constituents.

Certain instances of pronominal clitics evidently fulfil selectional restrictions, not on verbs, but on other constituents dominated by V'. They may be treated exactly as were the pronominal

clitics fulfilling selectional restrictions on verbs in the preceding section.

There are two types of dative clitics fulfilling a nonverbal selectional restriction. First, certain dative clitics function as the object of a stranded preposition dominated by V'. Consider sentences (96) and (97). Note that in the (a) sentences, neither the verb courir nor tomber selectionally requires a dative object.

      (96) a. Jean lui court après.
      cf. b. Jean court après Marie.

      (97) a. Les pierres leur tombent dessus.
      cf. b. Les pierres tombent sur eux.

The second type of dative clitic fulfilling a selectional restriction on a nonverbal constituent dominated by V' is that satisfying a restriction on a predicate adjective, as in (98) and (99):

      (98) a. Jean leur est fidèle.
      cf. b. Jean est fidèle à ses amis.

      (99) a. Ceci lui devient pénible.
      cf. b. Ceci devient pénible à Jean.

By a more general restatement of both the lexical rule (47) and the spelling-out rule (70), both of these kinds of instances of dative pronominal clisis can be straightforwardly accounted for.

Consider first the problem of dative clitics serving the role of prepositional object. Not every preposition may be stranded by an object that shows up proclitic to a verb; for example, (100)-(102) all contain unstrandable prepositions.

      (100) *On lui a ri de.
      (101) *La fille lui courait à.
      (102) *Il faut lui croire en.

Interestingly, many of the strandable prepositions show suppletion when stranded. For example, dessus (see (97a)) is a suppletive alternant of sur occurring in stranded positions; dedans is a suppletion for stranded dans; and so on. These facts might be neatly captured as follows: first, assume that strandable prepositions contain the restriction [+__-acc] in their associated complex symbols, but that nonstrandable prepositions are simply [+__NP]; second, assume the following more general statement of the lexical rule which replaces selectional restrictions with complex symbols of second order to be spelled out as clitic sequences:

(103)   Given any lexical expression[13] γ with a selectional
restriction [+__αacc], there are other lexical
expressions like γ except that in place of the
feature [+__αacc], they have a complex symbol

$$\left[\begin{array}{c}\left[\begin{array}{c}\alpha acc \\ \pm III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg\end{array}\right]\end{array}\right]$$ of second order in their
associated feature complex.

(1 further reformulation)

(103) would allow the strandable preposition après to have, in
addition to its basic lexical version (104), another version (105):

$$(104)\left[\begin{array}{c}\underline{après} \\ +Prep \\ +\underline{\quad}-acc\end{array}\right] \qquad (105)\left[\begin{array}{c}\underline{après} \\ +Prep \\ [+lui]\end{array}\right]$$

Observe that sur should show up as dessus in its version introduced by
(103); thus, (106) could be assumed as an additional lexical rule:

(106)   Any preposition that is [[−acc]] assumes its
alternate form if it has one.

This would guarantee the appearance of (108), for example, beside
(107) in the lexicon:

$$(107)\left[\begin{array}{c}\underline{sur} \\ +Prep \\ +\underline{\quad}-acc\end{array}\right] \qquad (108)\left[\begin{array}{c}\underline{dessus} \\ +Prep \\ [+leur]\end{array}\right]$$

Note that, by virtue of the absence of [+__αacc] from their feature
complexes, unstrandable prepositions would 'undergo' neither (103)
nor (106).

Now, by similarly generalizing the statement of the proclitic
pronoun spelling-out rule (70), as in (109), instances of (105) and
(108) in structures such as (110) and (111) can be spelled out as
in (112) and (113), respectively.

(109) For any V″ analyzable as both $[X[_V,W\,[\,\underline{z}\,]Y]]$
and $[B[_V\left[\begin{array}{c}\underline{w} \\ -\text{pple}\end{array}\right]]B'\,Z]$, if the complex symbol

associated with z contains a complex symbol

$$\left[\begin{array}{c}\left[\begin{array}{c}\alpha acc \\ \beta III \\ \gamma I \\ \delta refl \\ \epsilon fem \\ \zeta sg\end{array}\right]\end{array}\right]$$ of second order, then this
must be eliminated from z and
$[_V\,\underline{w}]$ must be replaced with
$[_V\,\underline{x}\,\underline{w}]$, which is

[+V, +ProNP, βIII] and which inherits all
remaining features from <u>w</u>, where <u>x</u> is

$$\begin{bmatrix} +\text{ProNP} \\ \alpha\text{acc} \\ \beta\text{III} \\ \gamma\text{I} \\ \delta\text{refl} \\ \varepsilon\text{fem} \\ \zeta\text{sg} \end{bmatrix}$$. <u>Condition</u>: If <u>w</u> is
[+ProNP], then <u>x</u> is [αIII]
and <u>w</u> is [+III].

(final formulation)

(110)
```
            S
          /   \
        NP     PRED
        |      /    \
        N    AUX     V"
        |     |      |
      Jean   TNS     V'
             |      /   \
            Pres   V     PP
                   |     |
               ⌈courir⌉  P
               |+V   |   |
               ⌊-pple⌋  ⌈après⌉
                        |+Prep |
                        ⌊[+lui]⌋
```

(111)
```
            S
          /   \
        NP     PRED
        △      /    \
       les   AUX     V"
     pierres  |      |
             TNS     V'
              |     /   \
            Pres   V     PP
                   |     |
               ⌈tomber⌉  P
               |+V   |   |
               ⌊-pple⌋  ⌈dessus ⌉
                        |+Prep  |
                        ⌊[+leur]⌋
```

(112)
```
            S
          /   \
        NP     PRED
        |      /    \
        N    AUX     V"
        |     |      |
      Jean   TNS     V'
             |      /   \
            Pres   V     PP
                   |     |
            ⌈lui courir⌉ P
            |+V       |  |
            |-pple    | ⌈après ⌉
            |+ProNP   | ⌊+Prep⌋
            ⌊+III     ⌋
```

(113)
```
            S
          /   \
        NP     PRED
        △      /    \
       les   AUX     V"
     pierres  |      |
             TNS     V'
              |     /   \
            Pres   V     PP
                   |     |
            ⌈leur tomber⌉ P
            |+V        |  |
            |-pple     | ⌈dessus⌉
            |+ProNP    | ⌊+Prep ⌋
            ⌊+III      ⌋
```
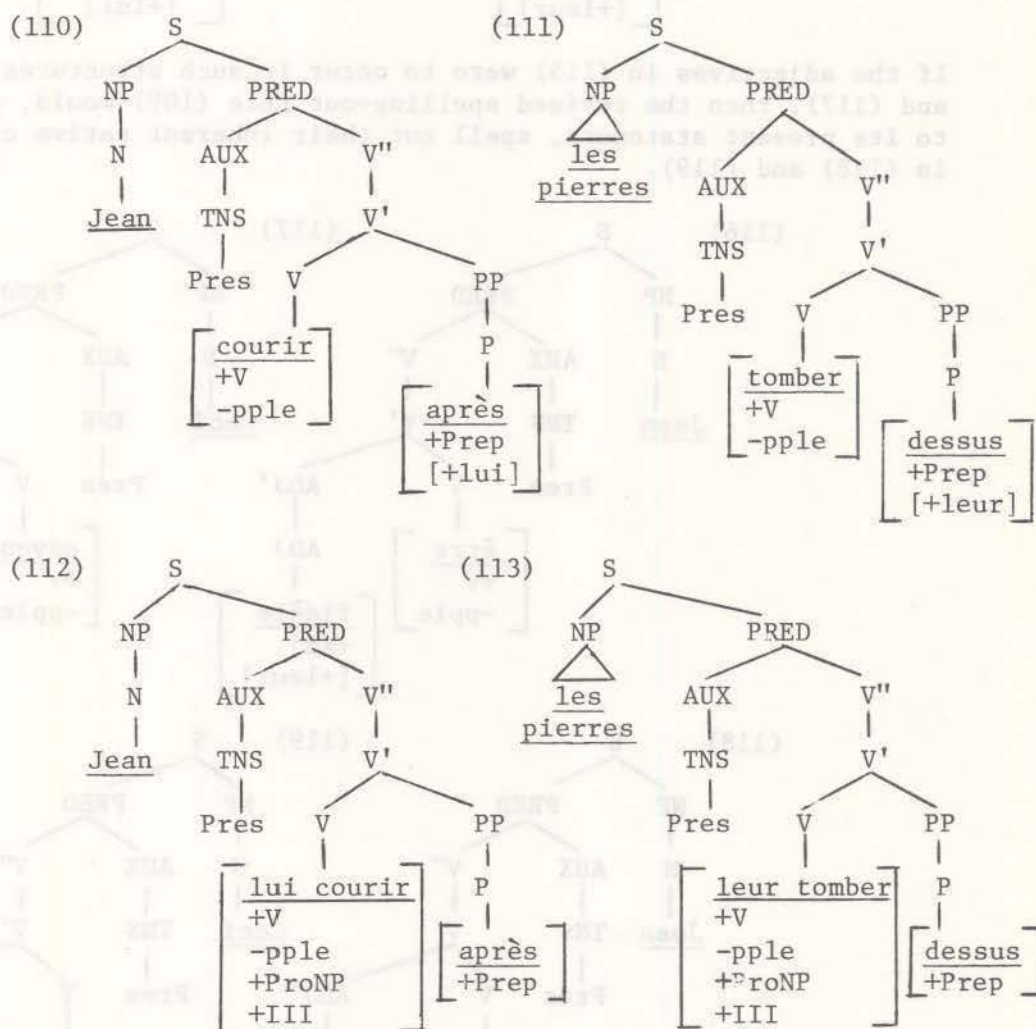
Consider now the problem of dative clitics serving as adjective-
complements. Adjectives such as <u>fidèle</u> and <u>pénible</u> allowing dative
complements might be thought to appear as follows in the lexicon:

(114)

$$
\begin{bmatrix} \underline{\text{fidèle}} \\ +\text{Adj} \\ +\underline{\quad}\text{-acc} \end{bmatrix}
\qquad
\begin{bmatrix} \underline{\text{pénible}} \\ +\text{Adj} \\ +\underline{\quad}\text{-acc} \end{bmatrix}
$$

The lexical rule (103), in its present statement, would introduce other versions of the same adjectives into the lexicon--for example, those in (115):

(115)

$$
\begin{bmatrix} \underline{\text{fidèle}} \\ +\text{Adj} \\ [+\text{leur}] \end{bmatrix}
\qquad
\begin{bmatrix} \underline{\text{pénible}} \\ +\text{Adj} \\ [+\text{lui}] \end{bmatrix}
$$

If the adjectives in (115) were to occur in such structures as (116) and (117), then the revised spelling-out rule (109) would, according to its present statement, spell out their inherent dative clitics as in (118) and (119).

(116)

(117)

(118)

(119)

Thus, by a sufficiently general statement of the lexical rule replacing selectional restrictions with complex symbols of second order to be spelled out as pronominal clitics, and of the spelling-out rule itself, instances of pronominal clitics satisfying a selectional restriction on a nonverbal constituent under V' may be straightforwardly accounted for in the approach introduced above.

II.3. <u>'Adverbial' clitics fulfilling subcategorization restrictions on V.</u>

I shall accept here the uncontroversial assumption that the so-called adverbial clitics of French, <u>en</u> and <u>y</u>, are pro-PPs (see Kayne (1975:105-14) for discussion).

Interestingly, many instances of these 'adverbial' clitics serve anything but an adverbial function; consider the following sentences, in which <u>en</u> and <u>y</u> clearly satisfy some subcategorization restriction on the main verb:

(120) a. Il y répond.
    cf. b. Il répond aux questions.

(121) a. Il en dégage Jean.
    cf. b. Il dégage Jean de cette obligation.

These instances of <u>en</u> and <u>y</u> are in principle no different from instances of pronominal clitics fulfilling selectional restrictions on verbs. Thus, if the minimal feature compositions in (122) are associated with the 'adverbial' clitics <u>en</u> and <u>y</u>, then, as a parallel to rule (103), a second lexical rule (123) can be stated as follows so as to produce verbs such as (124b) and (125b) given those in (124a) and (125a).

$$(122) \quad \begin{bmatrix} \underline{en} \\ +ProPP \\ +gen \end{bmatrix} \qquad \begin{bmatrix} \underline{y} \\ +ProPP \\ -gen \end{bmatrix}$$

(123) Given any verb γ with a subcategorization restriction [+__PP], there are other verbs like γ except in that in place of the feature [+__PP], they have a complex symbol [[+ProPP, ±gen]] of second order in their associated complex symbol.
                (1 further reformulation)

$$(124) \quad a. \quad \begin{bmatrix} \underline{répondre} \\ +V \\ +\_\_PP \end{bmatrix} \qquad b. \quad \begin{bmatrix} \underline{répondre} \\ +V \\ \begin{bmatrix} +ProPP \\ -gen \end{bmatrix} \end{bmatrix}$$

3

(125) a. $\begin{bmatrix} \underline{\text{dégager}} \\ +V \\ +\underline{\quad}\; +acc \\ +\underline{\quad}\; PP \end{bmatrix}$ b. $\begin{bmatrix} \underline{\text{dégager}} \\ +V \\ +\underline{\quad}\; +acc \\ \begin{bmatrix} +ProPP \\ +gen \end{bmatrix} \end{bmatrix}$
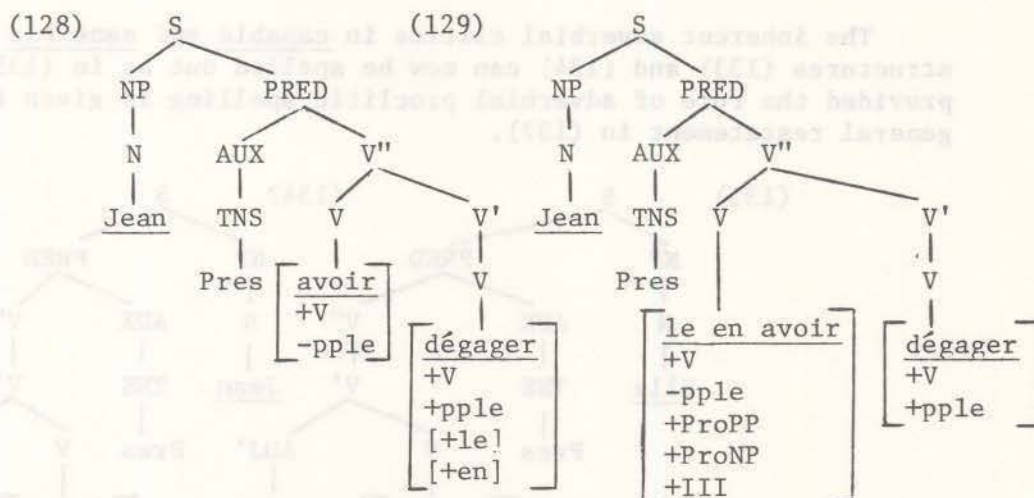
To provide for the spelling out of verbs like (124b) and (125b),
a rule of adverbial proclitic spelling wholly analogous to the
pronominal proclitic spelling-out rule (109) may be given the
following statement:

(126) Given any V″ analyzable as both $[X[_V{'}\,[_V\,\underline{z}\,]Y]]$

and $[B[_V\begin{bmatrix} \underline{w} \\ -pple \end{bmatrix}]B'\,Z]$, if the complex symbol

associated with $\underline{z}$ contains a complex symbol

$\begin{bmatrix} \begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix} \end{bmatrix}$ of second order and $\underline{w}$ isn't [+ProNP]

or [+ProPP] then $\begin{bmatrix} \begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix} \end{bmatrix}$ must be eliminated

from $\underline{z}$ and $[_V\,\underline{w}\,]$ must be replaced with $[_V\,\underline{x}\,\underline{w}\,]$,

which is [+ProPP] and which inherits all remaining
features from $\underline{w}$, where $\underline{x}$ is $\begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix}$.

(1 further reformulation)

This rule interacts with the spelling-out rule for pronominal
proclitics in exactly the correct way. An example should suffice to
demonstrate this. The verb dégager, when it means 'to acquit', takes
two complements--an accusative noun phrase and a prepositional phrase;
thus, dégager 'acquit' might be lexically represented as in (125a)
above. By the lexical rules (103) and (123), a second verb (127)
might also occur in the lexicon:

(127) $\begin{bmatrix} \underline{\text{dégager}} \\ +V \\ [+le] \\ [+en] \end{bmatrix}$

If (127) occurred in the structure (128), then the operation of the
proclitic spelling-out rules (109) and (126) on (128) would yield
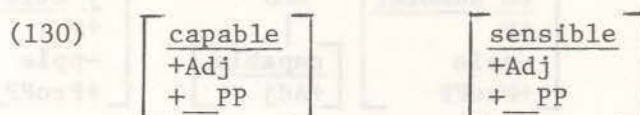(129) as unique output:

(128)

```
              S
        ┌─────┴─────┐
       NP          PRED
        │      ┌─────┴─────┐
        N     AUX         V"
        │      │      ┌────┴────┐
      Jean    TNS     V        V'
              │        │        │
             Pres   ┌─────┐     V
                    │avoir│     │
                    │+V   │  ┌──────┐
                    │-pple│  │dégager│
                    └─────┘  │+V    │
                             │+pple │
                             │[+le] │
                             │[+en] │
                             └──────┘
```

(129)

```
              S
        ┌─────┴─────┐
       NP          PRED
        │      ┌─────┴─────┐
        N     AUX         V"
        │      │      ┌────┴────┐
      Jean    TNS     V        V'
              │        │        │
             Pres  ┌────────┐    V
                   │le en avoir│  │
                   │+V       │ ┌──────┐
                   │-pple    │ │dégager│
                   │+ProPP   │ │+V    │
                   │+ProNP   │ │+pple │
                   │+III     │ └──────┘
                   └────────┘
```

(Observe that (126) expresses the proper ordering restriction holding
between pronominal and adverbial proclitics.)

II.4. 'Adverbial' clitics fulfilling subcategorization restrictions
on nonverbal constituents.

As was the case with the pronominal clitics, adverbial clitics may
fulfil restrictions on nonverbal constituents dominated by V'; by a
straightforward restatement of the lexical rule (123) and the adverbial
proclitic spelling-out rule (126), instances of such adverbial clitics
may be accounted for in the approach already described.

Just as I suggested that adjectives taking dative complements
(like fidèle and pénible) might be selectionally restricted as [+__-acc],
I propose that adjectives taking prepositional phrase-complements
(such as capable and sensible) be subcategorized as [+__PP]:

(130)
$$\begin{bmatrix} \text{capable} \\ \text{+Adj} \\ +\_\_\text{PP} \end{bmatrix} \qquad \begin{bmatrix} \text{sensible} \\ \text{+Adj} \\ +\_\_\text{PP} \end{bmatrix}$$
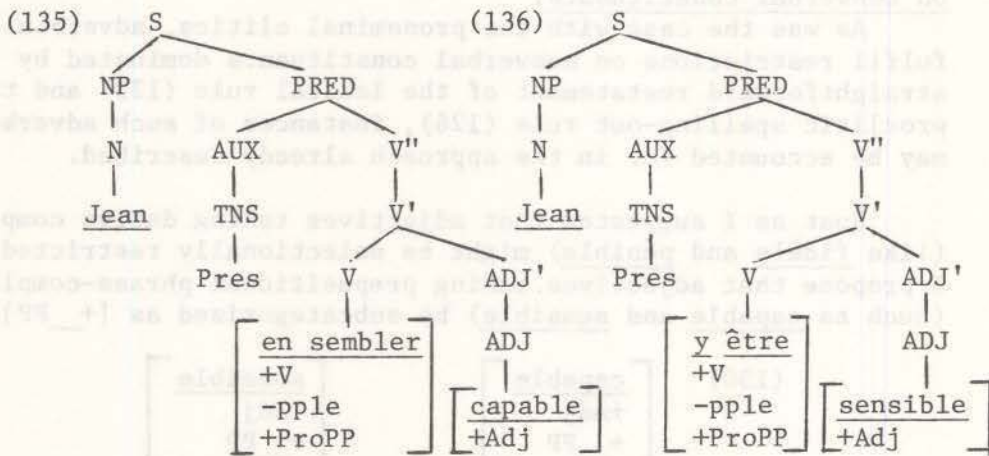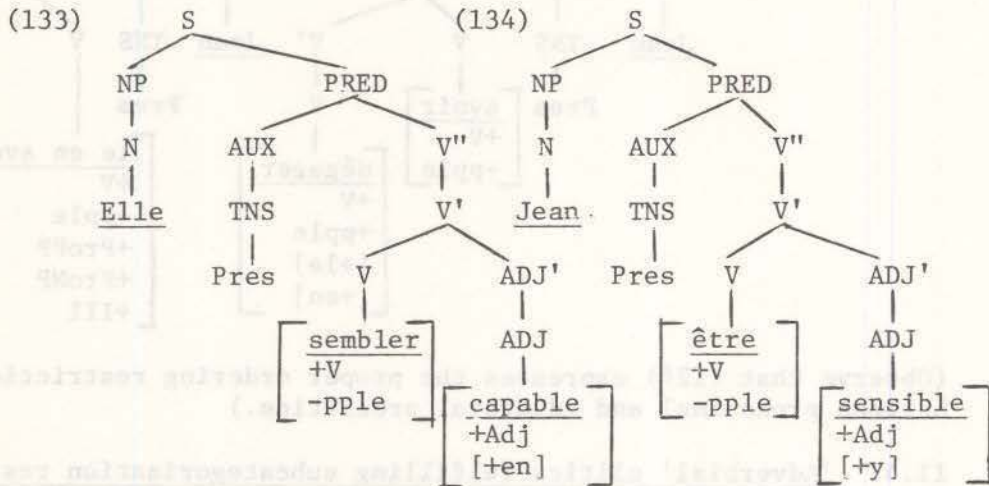
By generalizing the lexical rule replacing [+__PP] with [[+ProPP]]
as in (131), we can provide for the presence of adjectives like those
in (132) in the lexicon of French.

(131)   For any expression γ, if γ is [+__PP], then there are
        other expressions like γ except that in place of
        [+__PP], they have a complex symbol [[+ProPP,
        ±gen]] of second order in their associated
        complex symbol.

                                        (final formulation)

(132)
$$\begin{bmatrix} \text{capable} \\ \text{+Adj} \\ [\text{+en}] \end{bmatrix} \qquad \begin{bmatrix} \text{sensible} \\ \text{+Adj} \\ [\text{+y}] \end{bmatrix}$$
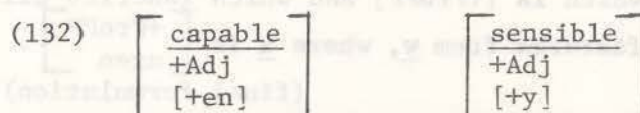
The inherent adverbial clitics in <u>capable</u> and <u>sensible</u> in structures (133) and (134) can now be spelled out as in (135) and (136), provided the rule of adverbial proclitic spelling is given the more general restatement in (137).

(133)

```
                    S
         ┌──────────┴──────────┐
        NP                    PRED
         |              ┌───────┴───────┐
         N             AUX             V"
         |              |               |
       Elle            TNS             V'
                        |         ┌──────┴──────┐
                      Pres        V           ADJ'
                                  |             |
                            ┌─────────┐        ADJ
                            │ sembler │         |
                            │ +V      │   ┌──────────┐
                            │ -pple   │   │ capable  │
                            └─────────┘   │ +Adj     │
                                          │ [+en]    │
                                          └──────────┘
```

(134)

```
                    S
         ┌──────────┴──────────┐
        NP                    PRED
         |              ┌───────┴───────┐
         N             AUX             V"
         |              |               |
       Jean            TNS             V'
                        |         ┌──────┴──────┐
                      Pres        V           ADJ'
                                  |             |
                            ┌─────────┐        ADJ
                            │ être    │         |
                            │ +V      │   ┌──────────┐
                            │ -pple   │   │ sensible │
                            └─────────┘   │ +Adj     │
                                          │ [+y]     │
                                          └──────────┘
```

(135)

```
                    S
         ┌──────────┴──────────┐
        NP                    PRED
         |              ┌───────┴───────┐
         N             AUX             V"
         |              |               |
       Jean            TNS             V'
                        |         ┌──────┴──────┐
                      Pres        V           ADJ'
                                  |             |
                            ┌───────────┐     ADJ
                            │ en sembler│      |
                            │ +V        │  ┌─────────┐
                            │ -pple     │  │ capable │
                            │ +ProPP    │  │ +Adj    │
                            └───────────┘  └─────────┘
```

(136)

```
                    S
         ┌──────────┴──────────┐
        NP                    PRED
         |              ┌───────┴───────┐
         N             AUX             V"
         |              |               |
       Jean            TNS             V'
                        |         ┌──────┴──────┐
                      Pres        V           ADJ'
                                  |             |
                            ┌───────────┐     ADJ
                            │ y être    │      |
                            │ +V        │  ┌──────────┐
                            │ -pple     │  │ sensible │
                            │ +ProPP    │  │ +Adj     │
                            └───────────┘  └──────────┘
```

(137) Given any V" analyzable as both $[X[_V,W[\ \underline{z}\ ]Y]]$
and $[B[_V \begin{bmatrix} \underline{w} \\ -pple \end{bmatrix}] B'\ Z]$, if the complex symbol
associated with $\underline{z}$ contains a complex symbol
$\begin{bmatrix} \begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix} \end{bmatrix}$ of second order and $\underline{w}$ isn't [+ProNP]
or [+ProPP], then $\begin{bmatrix} \begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix} \end{bmatrix}$ must be eliminated
from $\underline{z}$ and $[_V\ \underline{w}\ ]$ must be replaced by $[_V\ \underline{x}\ \underline{w}]$,
which is [+ProPP] and which inherits all remaining
features from $\underline{w}$, where $\underline{x}$ is $\begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix}$.
                    (final formulation)

A similar account could be given of partitive uses of _en_ exemplified in (138), (139), and (arguably) (140):

    (138)   Il en voit trois.
    (139)   Elle en a trouvé des rouges.
    (140)   Jean en a.

The facts concerning partitive _en_ (cf. Kayne (1975:118-23)) are, however, complicated enough that I will not attempt to give a detailed explanation of how they may be accounted for under the framework I am presenting here; I am nevertheless certain that they should prove no more recalcitrant in this framework than in any other.

II.5. Enclisis (affirmative imperatives).

Of course, my discussion has so far been exclusively concerned with proclisis. In affirmative imperative sentences, however, French clitic sequences are postverbal; there is, furthermore, a different ordering restriction on these sequences (although the cooccurrence restrictions—(i) and (ii) above—remain the same)—namely that dative pronominal clitics always follow accusative ones (note that the same relative ordering between pronominal clitics and adverbial clitics holds as in preverbal clitic sequences). Thus, spelling-out rules providing for enclisis in affirmative imperative constructions are required.

The pronominal enclitic spelling-out rule is (141):

    (141) For any affirmative imperative V″ analyzable as
both $[X[_V, W[\ \underline{z}\ ]Y]]$ and $[B[_V\begin{bmatrix} \underline{w} \\ -pple \end{bmatrix}]B'\ Z]$,

if the complex symbol associated with $\underline{z}$ contains

a complex symbol $\begin{bmatrix}\begin{bmatrix} \alpha acc \\ \beta III \\ \gamma I \\ \delta refl \\ \epsilon fem \\ \zeta sg \end{bmatrix}\end{bmatrix}$ of second order,

then this must be eliminated from $\underline{z}$ and $[_V\ \underline{w}\ ]$

must be replaced by $[_V\ \underline{w}\ \underline{x}\ ]$, which is [+ProNP,

βIII] and which inherits all remaining features

from $\underline{w}$, where $\underline{x}$ is $\begin{bmatrix} +ProNP \\ \alpha acc \\ \beta III \\ \gamma I \\ \delta refl \\ \epsilon fem \\ \zeta sg \end{bmatrix}$. Conditions:
    $\underline{w}$ isn't [+ProPP];
    if $\underline{w}$ is [+ProNP],
    then $\underline{x}$ is [-acc]
    and $\underline{w}$ is [+III].

Given the structure (142), (141) operates to produce (143):[14]

(142)

```
        S
        |
        V"
        |
        V'
        |
        V
 ⎡ donnez ⎤
 ⎢ +V     ⎥
 ⎢ -pple  ⎥
 ⎢ [+me]  ⎥
 ⎣ [+le]  ⎦
```

(143)

```
        S
        |
        V"
        |
        V'
        |
        V
 ⎡ donnez le moi ⎤
 ⎢ +V            ⎥
 ⎢ -pple         ⎥
 ⎢ +ProNP        ⎥
 ⎣ -III          ⎦
```
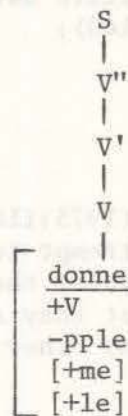
It may be simply verified that (141) spells out all and only possible pronominal enclitic sequences.

The adverbial enclitic spelling-out rule is (144):

(144) For any affirmative imperative V" analyzable
as both $[X[_V,W[\ \underline{z}\ ]Y]]$ and $[B[_V\ \begin{bmatrix} \underline{w} \\ -pple \end{bmatrix}\ ]B'\ Z]$,
if the complex symbol associated with $\underline{z}$ contains
a complex symbol $\begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix}$ of second order, then
this must be eliminated from $\underline{z}$ and $[_V\ \underline{w}\ ]$ must
be replaced by $[_V\ \underline{w}\ \underline{x}\ ]$, which is [+ProPP] and
which inherits all remaining features from $\underline{w}$,
where $\underline{x}$ is $\begin{bmatrix} +ProPP \\ \alpha gen \end{bmatrix}$. Condition: $\underline{w}$ isn't [+ProPP].

Given the structure (145), (141) and (144) would interact to produce (146) as their unique output:

(145)

```
        S
        |
        V"
        |
        V'
        |
        V
 ⎡ dégagez ⎤
 ⎢ +V      ⎥
 ⎢ -pple   ⎥
 ⎢ [+le]   ⎥
 ⎣ [+en]   ⎦
```

(146)

```
        S
        |
        V"
        |
        V'
        |
        V
 ⎡ dégagez le en ⎤
 ⎢ +V            ⎥
 ⎢ -pple         ⎥
 ⎢ +ProNP        ⎥
 ⎢ +III          ⎥
 ⎣ +ProPP         ⎦
```
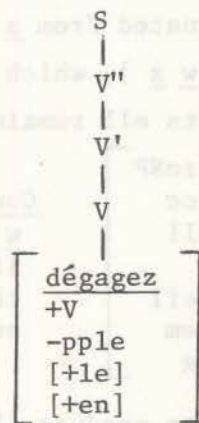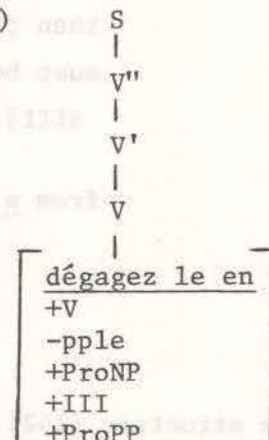
These, then, are the spelling-out rules required for the description of enclisis in the approach under discussion.

III. Clitics serving as adverbial or adnominal modifiers.
III.1. Adverbial pronominal clitics.
       In the preceding section (II) of this paper, it was claimed that
clitics fulfilling selectional (or, in the case of adverbial clitics,
subcategorization) restrictions on a constituent dominated by V' arise
underlyingly as complex symbols of second order on that constituent as
the result of the operation of a pair of lexical rules ((103) and (131),
in their most recent formulation). These second order complexes are
later spelled out as clitic sequences by four rules ((109), (137), (141),
and (144)) following the application of all syntactic transformations.
I shall now, in the present section, demonstrate how clitics not
fulfilling a selectional/subcategorization restriction on a constituent
dominated by V' may be integrated into this system: in particular,
I shall suggest that these clitics also result from the post-trans-
formational spelling-out of second order feature complexes (which
spelling-out may be straightforwardly accomplished by the rules I have
already introduced) and that these feature complexes also appear on
different underlying constituents dominated by V' as the result of
two other lexical rules yet to be introduced.

       Certain occurrences of pronominal clitics clearly satisfy no
selectional/subcategorization restriction on any constituent. All
such clitics are dative in form and combinatory behavior.

       First, dative clitics may occur which designate the inalienable
possessor of the referent of a definite noun phrase functioning as
subject, direct object, or prepositional object. Consider sentences
(147)-(149); notice that the verbs crever, battre, and sauter in
these sentences take datives only when these datives are adverbial in
function (as in the inalienable construction).

                (147) a. Jean lui a crêvé la gidouille.
                   cf. b. Jean a crêvé le pneu.

                (148) a. Le coeur lui bat.
                   cf. b. Le métronome bat.

                (149) a. Elle lui saute à la gorge.
                   cf. b. Elle saute à la porte.

       Second, ethical datives function in a purely adverbial sense,
as in (150) and (151):[15]

                (150) Jean lui a cassé quelques vitrines.
                (151) Elle leur crache sur des voitures en bas.

       These two types of adverbial dative clitics might simply be
treated as different cases of the same phenomenon, as Kayne (1975:
170) observes; the treatment I propose here is fully analogous to
the foregoing treatment of nonadverbial pronominal clitics.

Assume that the lexicon contains the following rule:

(152) For any lexical verb γ that isn't [[-acc]],
there are other verbs like γ except in that the
complex symbols associated with the latter contain

an instantiation of
$$\begin{bmatrix} -acc \\ \pm III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{bmatrix}$$
.

(152), given a verb like (153), introduces corresponding verbs like (154):

(153)
$$\begin{bmatrix} \underline{crever} \\ +V \\ +\_\_+acc \end{bmatrix}$$
(154)
$$\begin{bmatrix} \underline{crever} \\ +V \\ +\_\_+acc \\ [+lui] \end{bmatrix}$$

An instance of a verb like (154) introduced by (152) occurring in a
structure like (155) will, of course, be subject to spelling out by
(109) (or, in affirmative imperatives, by (141))--the result of which
would be (156).

(155)
```
                    S
              _____|_____
            NP               PRED
            |            _____|_____
            N          AUX            V"
            |           |         _____|_____
          Jean         TNS       V          V'
                        |         |      ____|____
                      Pres   ┌avoir┐     V        NP
                             │+V   │     |
                             └-pple┘  ┌crever┐  la gidouille
                                      │+V    │
                                      │+pple │
                                      │[+lui]│
                                      └+__+acc┘
```

(156)

```
                          S
              ┌───────────┴───────────┐
             NP                      PRED
              │              ┌────────┴────────┐
              N            AUX               V"
              │            │         ┌────────┴────────┐
            Jean          TNS        V                V'
                          │    ┌─────────┐      ┌──────┴──────┐
                         Pres  │ lui avoir │    V            NP
                               │ +V        │  ┌──────┐
                               │ -pple     │  │ crêver │   la gidouille
                               │ +ProNP    │  │ +V     │
                               │ +III      │  │ +pple  │
                               └───────────┘  │ +__+acc│
                                              └────────┘
```
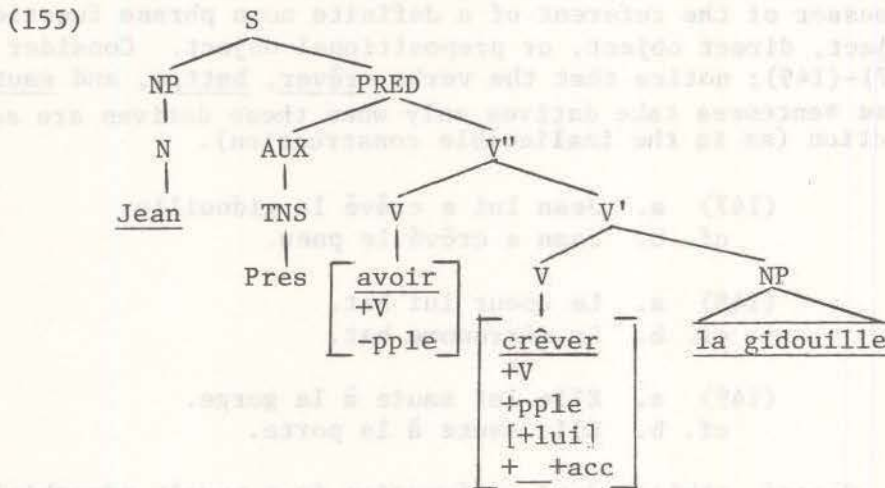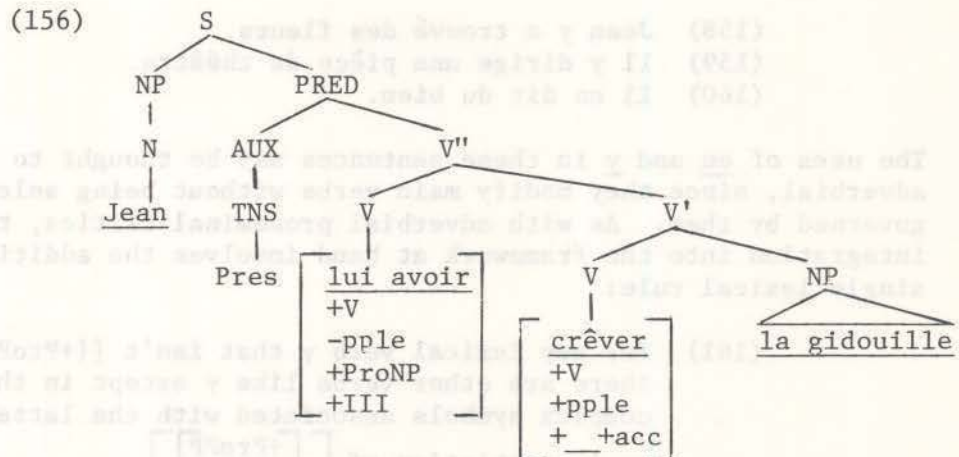
Thus, the integration of adverbial pronominal clitics into the
above framework requires the addition of only a single lexical rule--
which, however, entails a minor adjustment in the statement of the
other lexical rule (103) adding feature complexes of second order to
be spelled out as pronominal clitics. Notice that (152) works only
for verbs that aren't [[-acc]] already; this restriction prevents
multiple dative clitics from being spelled out by (109) and (141) by
preventing [[+lui]], etc. from being added to the feature composition
of a verb that is already [[-acc]]. Now, an analogous restriction
must be placed upon (103) if we are to allow (152) to introduce
feature complexes to be spelled out as dative clitics independently
of selectional considerations. Thus, the final formulation of (103)
is to be:

> (157) Given any lexical expression γ with a selectional
> restriction $[+\underline{\quad}\alpha acc]$, provided that γ isn't
> $\begin{bmatrix} +\underline{\quad}-acc \\ [-acc] \end{bmatrix}$, there are other lexical expressions
> like γ except that in place of the feature $[+\underline{\quad}\alpha acc]$,
>
> they have a feature complex $\begin{bmatrix} \begin{bmatrix} \alpha acc \\ \pm III \\ \pm I \\ \pm refl \\ \pm fem \\ \pm sg \end{bmatrix} \end{bmatrix}$ of second
>
> order in their associated complex symbol.
> (final formulation)

III.2. Adverbial 'adverbial' clitics.
    Adverbially-used adverbial clitics may be similarly provided for,
but not quite so simply. Consider sentences (158)-(160):

    (158) Jean y a trouvé des fleurs.
    (159) Il y dirige une pièce de théâtre.
    (160) Il en dit du bien.

The uses of en and y in these sentences may be thought to be truly adverbial, since they modify main verbs without being selectionally governed by them. As with adverbial pronominal clitics, their integration into the framework at hand involves the addition of a single lexical rule:

    (161) For any lexical verb γ that isn't [[+ProPP]],
           there are other verbs like γ except in that the
           complex symbols associated with the latter contain
           an instantiation of $\left[\begin{bmatrix} +ProPP \\ \pm gen \end{bmatrix} \right]$.

(161) allows such verbs as those in (162) to have the modified versions in (163):

    (162) $\begin{bmatrix} trouver \\ +V \\ +\_\_+acc \end{bmatrix}$ $\begin{bmatrix} dire \\ +V \\ +\_\_+acc \\ +\_\_-acc \end{bmatrix}$

    (163) $\begin{bmatrix} trouver \\ +V \\ +\_\_+acc \\ [+y] \end{bmatrix}$ $\begin{bmatrix} dire \\ +V \\ +\_\_+acc \\ +\_\_-acc \\ [+en] \end{bmatrix}$

The verbs in (163) would, of course, undergo the adverbial clitic spelling-out rules discussed above ((137) and (144)); thus, the instances of the verbs trouver and dire in structures (164) and (165) would be inflected as in (166) and (167) by (137):

    (164)

(165)

```
              S
           /     \
         NP       PRED
         |       /    \
         N      AUX    V''
         |       |      |
         Il     TNS     V'
               |      /    \
              Pres   V      NP
                     |       |
                  ┌──────┐  du bien
                  │ dire │
                  │ +V   │
                  │ -pple│
                  │ + __ +acc │
                  │ [+en]│
                  └──────┘
```

(166)

```
              S
           /     \
         NP       PRED
         |       /    \
         N      AUX    V''
         |       |      |
        Jean    TNS     V
               |      /    \
              Pres   V      V'
                  ┌───────┐ /  \
                  │y avoir│ V    NP
                  │ +V    │ |     |
                  │ -pple │┌───────┐ des fleurs
                  │ +ProPP││trouver│
                  └───────┘│ +V    │
                           │ +pple │
                           │ + __ +acc│
                           └───────┘
```

(167)

```
              S
           /     \
         NP       PRED
         |       /    \
         N      AUX    V''
         |       |      |
         Il     TNS     V'
               |      /    \
              Pres   V      NP
                  ┌───────┐  |
                  │en dire│ du bien
                  │ +V    │
                  │ -pple │
                  │ + __ +acc│
                  │ +ProPP│
                  └───────┘
```
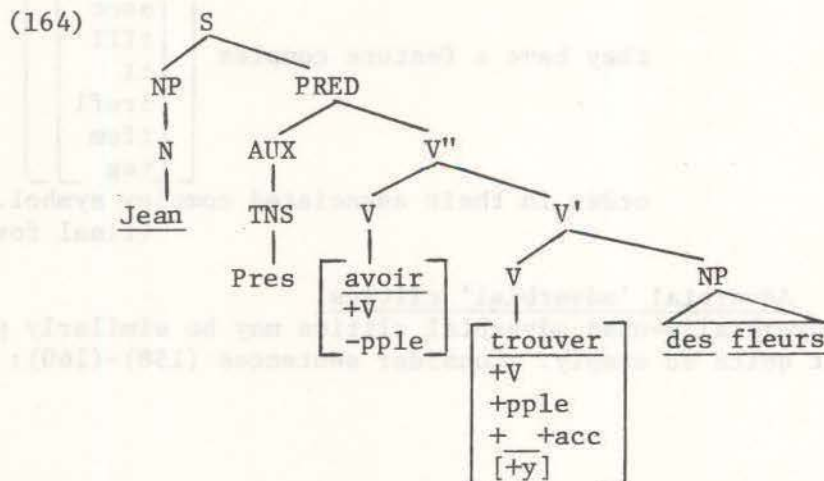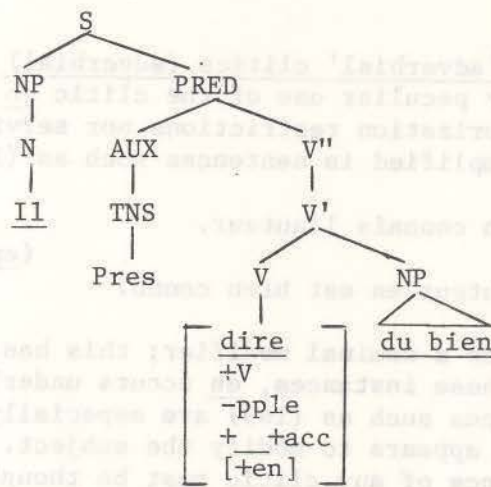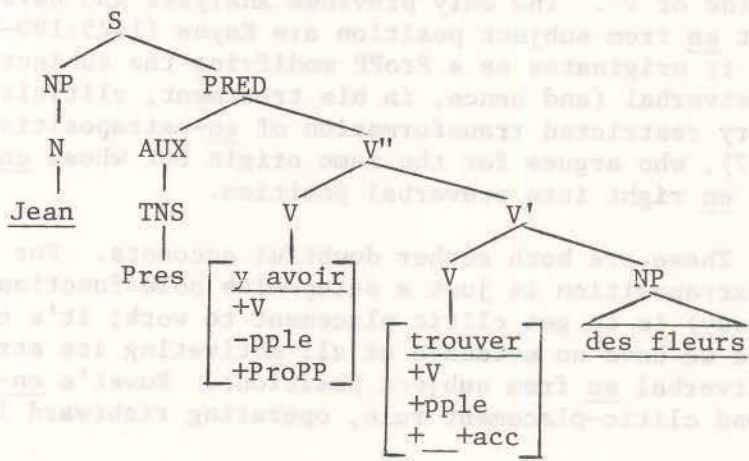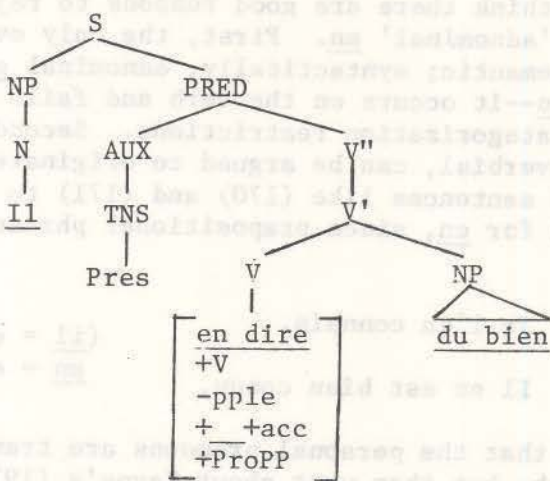
Thus, a single lexical rule (161) allows adverbial 'adverbial' clitics to be integrated into the framework at hand.

III.3. 'Adnominal' 'adverbial' clitics (adverbial) .

A seemingly very peculiar use of the clitic en neither fulfilling
selectional/subcategorization restrictions nor serving an adverbial
function is that exemplified in sentences such as (168) and (169):

(168) J'en connais l'auteur.

(en = e.g. 'du livre')

(169) L'auteur en est bien connu.

Here, en appears to be a nominal modifier; this has led other analysts
to assume that, in these instances, en occurs underlyingly as a ProPP
within a NP. Sentences such as (169) are especially recalcitrant--
en in such sentences appears to modify the subject. This is odd,
since no other instance of any clitic must be thought to originate
outside of V'. The only previous analysts who have really worried
about en from subject position are Kayne (1975:190-93), who argues
that it originates as a ProPP modifying the subject and is placed into
a postverbal (and hence, in his treatment, cliticizable) position by
a very restricted transformation of en-extraposition; and Ruwet (1972:
53-57), who argues for the same origin but whose en-avant transformation
puts en right into preverbal position.

These are both rather doubtful accounts. For one thing, Kayne's
en-extraposition is just a setup--its sole function (obligatory, by
the way) is to get clitic placement to work; it's completely abstract,
since we have no evidence at all motivating its structural change
(postverbal en from subject position). Ruwet's en-avant is simply a
second clitic-placement rule, operating rightward instead of leftward.

In fact, I think there are good reasons to reject the notion of
a NP-origin for 'adnominal' en. First, the only evidence favoring
this notion is semantic; syntactically, adnominal en is no different
from adverbial en--it occurs on the verb and fails to fulfil any
selectional/subcategorization restrictions. Second, no other clitic,
pronominal or adverbial, can be argued to originate as a NP-modifier.
Further, how are sentences like (170) and (171) to be reconciled
with a NP-origin for en, since prepositional phrases never modify
pronouns?

(170) Je l'en connais.

(il = e.g. "l'auteur";
en = e.g. 'du livre')

(171) Il en est bien connu.

One could argue that the personal pronouns are transformationally
derived in French--but then what about Kayne's (1971) arguments to
the contrary?

I think the whole approach to adnominal en as a syntactic
phenomenon has been misguided. What's interesting is the semantic

problem posed by en: it appears to flagrantly violate the composi-
tionality principle (hence the claim of a NP-origin, despite the
absence of any purely syntactic evidence); I believe it can be
shown that it doesn't, however,[16] and that, from the syntactic point
of view, it is perfectly sufficient to treat 'adnominal' en like
adverbial en. That is, all instances of en fulfilling no selectional/
subcategorization restriction can be thought to arise in the lexicon
through the operation of (161), and to be eventually spelled out by
(137) or (144).

IV. Justification of the inflectional approach to French clisis.
     I have ended up proposing a system of the following character:
four lexical rules ((131), (152), (157), and (161)) introduce feature
complexes of second order to be spelled out as clitics into the complex
symbols associated with lexical expressions; two of these rules ((131)
and (157)) substitute these second order feature complexes for selec-
tional/subcategorization restrictions on the lexical expressions in
question; the other two ((152)and (161)) introduce second order
complexes that, as it were, adverbially modify the constituent to which
they are added. Four obligatory spelling-out rules ((109), (137),
(141), and (144)) produce superficial clitic sequences: these are
the proclitic and enclitic spelling-out rules for pronominal and
adverbial clitics.

     I would briefly like to point out some further facts about French
clitic behavior supporting a system of this type.

     Consider first the lexical rules. These rules make it possible
to give a precise underlying characterization of possible functional
roles of clitics. For example, if we restrict prepositions like
après and sur as [+ _ -acc] in the lexicon, but restrict de, à, and en
as merely [+_ NP], then the lexical rule (157) predicts that a super-
ficial pronominal clitic may fulfil the role of object of après or
sur, but not of de, à, or en (which is in fact the case). If we
were to assume a syntactic approach to clisis whereby placement rules
move pronouns from full NP-positions to the verb, then we would, on
the other hand, have to state this fact as a condition on clitic-
placement. A second prediction made by the lexical rules is that
every instance of the adverbial clitic y will fulfil either an
adverbial function or a subcategorization restriction on some
constituent dominated by V'--that is, that y couldn't fulfil the
role of au pare-brise fêlé in (172):

          (172) Jean a retrouvé la voiture au pare-brise fêlé.

This prediction is in fact borne out:

          (173) *Jean y a retrouvé la voiture. (where y =
                  'au pare-brise fêlé')

In a syntactic approach to clitics deriving y from prepositional phrases of the form [$_{pp}$à ProNP], however, the ungrammaticality of (173) must be considered exceptional.

The lexical rules don't commit us to the claim that there must be a single preposition for which the adverbial clitic y may be a ProPP--and we wouldn't want to accept such a claim:

(174) On a trouvé ton livre $\left\{\begin{array}{l} \text{sur} \\ \text{sous} \\ \text{à côté de} \\ \text{derrière} \end{array}\right\}$ la table, et on y

a trouvé le mien.

To account for the same facts, a clitic-placement approach would, however, have to mention all possible instances of P in a prepositional phrase from which y is to derive (unless y is taken as a ProPP underlyingly, as in Fiengo & Gitterman (1978)).

The lexical rules, in fact, allow other facts to be treated in a much better way than in a syntactic approach to clisis. Consider sentences (175)-(178):

(175) a. Elle pense à lui.
       b. Elle sourit à lui.

(176) a. *Elle lui pense.
       b. Elle lui sourit.

(177) a. Jean est semblable à Marie.
       b. Jean est pareil à Marie.

(178) a. Jean lui est semblable.
       b. *Jean lui est pareil.

Kayne (1975:145-52) admits the problematic character of these facts, and suggests two possible solutions: the placement of a rule feature '-clitic placement' on verbs like penser and adjectives like pareil; or the assumption of a second preposition à* not meeting the structural description of pronominal clitic placement (this would be the à in (175a) and (177b). My approach affords a different treatment of these facts: penser would be subcategorized as in (179), which would be a sufficient condition to guarantee the nongeneration of (176a) (given that à would be merely [+_NP], and not [+_-acc]--see above); sourire, on the contrary, would be restricted as in (180), which would allow (176b) to be straightforwardly derived.

(179)
$$\begin{bmatrix} \underline{penser} \\ +V \\ +\_\_PP \end{bmatrix}$$
(180)
$$\begin{bmatrix} \underline{sourire} \\ +V \\ +\_\_-acc \end{bmatrix}$$

(Notice that I am taking à in (175b) to have been secondarily introduced as a marker of nonclitic dative objects of verbs--but this need not be nonidentical to the underlying à in (175a).) Similarly, <u>semblable</u> may appear in the lexicon as (181), while <u>pareil</u> would appear as (182); this would suffice to account for the facts of (177) and (178).

(181)
$$\begin{bmatrix} \underline{semblable} \\ +Adj \\ +\_\_-acc \end{bmatrix}$$
(182)
$$\begin{bmatrix} \underline{pareil} \\ +Adj \\ +\_\_PP \end{bmatrix}$$

Note finally that either of Kayne's solutions to the problem of (175)-(178) would appear to predict the ungrammaticality of (183) and (184), since these seem to involve the placement of a clitic whose source is [$_{PP}$à ProNP] onto <u>penser</u> and <u>pareil</u>. My lexical rules make the opposite (and correct) prediction that (183) and (184) will be grammatical, owing to the subcategorization of both <u>penser</u> and <u>pareil</u> as [+__PP] in the lexicon.

(183)   Elle y pense.
(184)   Jean y est pareil.

Thus, the same distinction in features ([+__-acc] vs. either [+__NP] or [+__PP]) used to distinguish strandable from nonstrandable prepositions is used here to distinguish those verbs and adjectives having cliticizable complements from those not; a generalization is thereby captured regarding a wide array of facts--which, under a transformational analysis, must be regarded as idiosyncratic and unrelated.

Thus, the lexical rules I have presented here are justifiable. To the extent that they finish the job set up by the lexical rules, the four spelling-out rules have already been justified. But a few additional things must be said about them.

First, there must be separate rules for pronominal and adverbial clitic spelling: one reason is that the spelling out ('placement') of pronominal clitics is governed by different conditions from that of adverbial clitics. For instance, adverbial clitics can neither modify nor fulfil a restriction on a constituent dominated by PP--that is, the variable 'W' in the spelling-out rules (137) and (144) may not contain a single PP-bracket; otherwise ungrammatical uses of clitics such as (185) and (186) would result:

(185)   *Il en court après l'auteur.

(186)   *Il en tombe sur l'auteur.

(where <u>en</u> is, e.g., 'du livre')

Pronominal clitics evince no such restriction:

> (187) Il lui court après.
> (188) Il lui tombe dessus.

Or, to take another example, dative pronominal clitics can't fulfil
a selectional requirement on the second member of a compound verb
construction (see Kayne (1975:281-87))--that is, the variable 'W'
in the spelling-out rules (109) and (141) may not contain an
infinitive if α is '-'; otherwise, ungrammatical dative clitics
such as those in (189) and (190) would result:[17]

> (189) a. *Je lui ferai écrire mon ami.
>   cf. b. Je ferai écrire mon ami à lui.

> (190) a. *Tu ne devrais pas leur laisser sourire ton
>   enfant.
>   cf. b. Tu ne devrais pas laisser sourire ton enfant
>   à eux.

Adverbial clitics, on the other hand, obey no such restriction (see
Kayne (1975:300-9)):

> (191) Cela y fera aller Jean.
> (192) Elle en fera sortir Jean.

These and other restrictions on clitic-spelling point to the same
conclusion, namely that pronominal clitic-spelling must be
accomplished by a rule separate from that carrying out adverbial
clitic-spelling. This conclusion rings true: for although adverbial
and pronominal clitics are positionally restricted with respect to
one another, there are no cooccurrence restrictions between them
beyond those derivable from the restrictions each has with respect
to the verb.

    Second, the use of spelling-out rules to account for French
clitic sequences is, methodologically, the right thing to do. The
French special clitics are of undeniably affixal character (see foot-
note 1), much more so than most clitics; as a consequence, groups
formed with these clitics have the status of words, and their
organization should therefore be described by means of rules appro-
priate to this status--namely rules of morphology. Words have
long been recognized to be islands with respect to rules of syntax--
especially rules of anaphora and movement; to pretend otherwise is
to commit a category error. This and the fact that a syntactic treat-
ment of the present data requires one to resort to extrinsic orderings
and flip transformations suggest the fundamental methodological
unsoundness of a syntactic approach to French clisis. Such an
approach presupposes the nondiscreteness of morphology and syntax,
and ignores the interesting and empirically testable hypothesis that

the two domains <u>are</u> discrete in some substantive sense (see Groos
(1978) and Lapointe (1978) for some discussion); the syntactic approach
contributes nothing to our understanding of how restrictively the
organization of natural language grammars may be delimited.

Admittedly, the treatment of French clisis as a brand of inflection
is not self-evident; this is perhaps to be attributed to the unfamili-
arity of verb agreement systems in which object-agreement is marked.
Once again, however, the example provided by Maithili inflection offers
some interesting parallels to the French. Consider abbreviated
versions of three sentences that were examined above:

> (193)   dekhalthunh. 'He (hon.) saw you (nonhon.)'
> (194)   kahaliau. 'I spoke to you (nonhon.)'
> (195)   larbah. 'You (hon.) will wrestle with me'

These sentences each consist of a single verb-form: in each
case, both object and subject are represented only in a complex personal
termination.[18] In no case may the inflections be regarded as expressing
agreement; rather, the inflections themselves fulfil different
relational roles with respect to the verb. Thus, given the lexical
entries in (196), the sentences in (193)-(195) could be derived
essentially by means of lexical rules and a spelling-out rule.

$$(196) \quad \begin{bmatrix} \text{dekh-} \\ \text{+V} \\ \text{+\_\_+acc} \end{bmatrix} \quad \begin{bmatrix} \text{kah-} \\ \text{+V} \\ \text{+\_\_-acc} \end{bmatrix} \quad \begin{bmatrix} \text{lar-} \\ \text{+V} \\ \text{+\_\_instr} \end{bmatrix}$$

To sketch briefly: one lexical rule would substitute instantiations
of the feature complex in (197) for selectional restrictions; an
additional lexical rule would add instantiations of (198) to verbal
features complexes (such a rule, although not altering the selectional
properties of verbs, might still be conceived of as 'category-changing'
--for example, it would convert intransitive verbs into (tenseless)
one-word sentences); assuming the transformational copying of features
of tense onto verbs, there would be sentences such as those in
(199) at a post-transformational stage of derivation.

$$(197) \quad \begin{bmatrix} \pm\text{III} \\ \pm\text{II} \\ \pm\text{hon} \\ -\text{nom} \end{bmatrix} \qquad (198) \quad \begin{bmatrix} \pm\text{III} \\ \pm\text{II} \\ \pm\text{hon} \\ +\text{nom} \end{bmatrix}$$

$$(199) \quad \begin{bmatrix} \underline{dekh-} \\ +V \\ -Pres \\ \begin{bmatrix} -III \\ +II \\ -hon \\ -nom \end{bmatrix} \\ \begin{bmatrix} +III \\ -II \\ +hon \\ +nom \end{bmatrix} \end{bmatrix} \quad \begin{bmatrix} \underline{kah-} \\ +V \\ -Pres \\ \begin{bmatrix} -III \\ +II \\ -hon \\ -nom \end{bmatrix} \\ \begin{bmatrix} -III \\ -II \\ \pm hon \\ +nom \end{bmatrix} \end{bmatrix} \quad \begin{bmatrix} \underline{lar-} \\ +V \\ +Fut \\ \begin{bmatrix} -III \\ -II \\ \pm hon \\ -nom \end{bmatrix} \\ \begin{bmatrix} -III \\ +II \\ +hon \\ +nom \end{bmatrix} \end{bmatrix}$$

A late spelling-out rule would effect their conversion into the forms (193)-(195).

This sketch should be sufficient to demonstrate the formal similarities between an indubitably inflectional phenomenon like Maithili verb inflection and the less obviously inflectional phenomenon of French clisis. In both instances, inflections fulfil relational roles with respect to the verb; in neither case is a purely syntactic (movement) or partially syntactic (agreement) solution to the origin of these inflections well-motivated. A single problem is posed, in French as in Maithili--namely that of providing mere inflections with some type of independent functional status in the lexicon/morphology of the language. It is this that the lexical rules and the spelling-out rules accomplish.

Conclusion.

I have, in this paper, attempted to give a well-motivated morphological account of French clisis, without recourse to surface structure constraints, extrinsic orderings, or rearranging transformations for clitics. Despite (or maybe because of) the rather broad range of data discussed here, the account presented is somewhat superficial: no account is provided here for the details of certain uses of clitics (e.g. partitive en, the dialectal incidence of double datives such as Il me te cassera la gueule, and so on), and I presuppose many analyses of French syntax (e.g. very superficial accounts of passives and compound verbs) whose correctness, however likely, remains to be established beyond question. It has become especially evident to me to what degree tout se tient where clitics are concerned--I conclude that no one can rightly claim to have found an explanatorily adequate description of French clitics without an explanatorily adequate description of most of the rest of French grammar. Nevertheless, I believe that the inflectional account of French clisis sketched in this paper aspires to a level of descriptive adequacy never before attained by a precisely-formulated approach to this complicated aspect of French grammar.

Footnotes

*I would like to express my sincerest thanks to Ramawatar Yadav
and Arnold Zwicky for their comments and discussion, without which
this paper could not have attained its present form. I am also
indebted to Richard Kayne, whose French Syntax poses many of the pro-
blems which I hope to have resolved; several of my example sentences
are drawn from this detailed, insightful work.

1. The six criteria discussed by Zwicky are: ordering (affixes
tend to be rigidly ordered within words; alternative orderings are
either ungrammatical or have a different cognitive meaning); internal
sandhi (affix-base morpheme combinations undergo phonological rules
applying only within words--i.e. they don't behave like separate words,
phonologically); binding (affixes are bound morphemes); construction
with affixes (only an affix or a base morpheme may appear in con-
struction with another affix); rule immunity (affixes can't be deleted
under identity); and accent (affixes never have independent accent).

French clitics are of unarguably affixal character with regard
to ordering (Je le lui donne/*Je lui le donne), binding (Qui voyez-
vous? Lui./*Le.), and accent. There is also evidence that French
clitics exemplify the other three properties of affixes. Several
claims have been made to the effect that clitic-verb sequences ('groups',
in Zwicky's terminology) undergo rules of internal sandhi. Dell (1973:
252) observes that inverted clitics of the form Cə behave phonologically
like final Cə-sequences in polysyllabic words and not like independent
monosyllabic words; note the impossibility of (ii) beside (i), despite
the acceptability of both (iii) and (iv):

(i)	[upw̌iẑməlave]	
(ii)	*[upw̌iẑəmlave]	où puis-je me laver?
(iii)	[laködsərənar]	
(iv)	[laködəsrənar]	la queue de ce renard (p. 245).

Citing Selkirk (1972:361-63), Dell notes (p. 252) that the optional
rule of word-internal vowel harmony (cf. pp. 214-17) must be allowed
to apply to groups. Finally, de Cornulier (1977:163-75) defines his
constraint of the non-entravabilité of e-féminin over 'phonological
words', i.e. words and groups. Thus, French clitics appear to show
affix-like behavior with respect to internal sandhi.

There is little non-question-begging evidence for claiming that
French clitics occur in construction with affixes. I merely point out
that certain adverbs, such as bien, are distributionally affixal in
that when they modify a verb, they must be immediately postverbal
(i.e. in such instances, the V-ADV syntagm fulfils the wordhood
criterion of noninterruptibility); to the extent that such sequences
are thought to exhibit affixation, sentences like Tiens-toi bien
might be thought to contain a clitic in construction with an affix.

Finally, Kayne (1975:96-99) has observed that neither clitics
nor verbs in groups are independently available for deletion under
identity, as the following examples suggest:

    (v)   Paul l'a frappé et l'a mis à la porte.
   (vi) *Paul l'a frappé et a mis à la porte.
  (vii) *Paul l'a frappé et le mis à la porte.
 (viii)   Paul l'a frappé et mis à la porte.

    Thus, to varying degrees, French clitics evince all of the six properties of affixes mentioned by Zwicky.

    2. In a recent paper (Lapointe (1978)), Steven Lapointe has raised many important objections to transformational treatments of French clitics, and has proposed an alternative, morphological approach. Although the present analysis differs from Lapointe's in several very substantial respects, I am very sympathetic to his assumptions regarding the nature of the problem posed by the French pronominal clitics.

    3. 'Dislocations' such as Jean, je le vois aren't counter-examples to this claim: 'dislocated' constituents don't fulfil a relational role in surface structure, nor, arguably, at any level of derivation (cf. the 'dislocation' Jean, je vois le crapule); it would, I think, be wrong to claim that the third person pronoun in Jean, je le vois expresses grammatical (and not merely referential) agreement with Jean—note the true ungrammaticality of Jean, je le voyons beside the merely pragmatic anomaly of Jean, je les vois.

    4. They might be thought of as 'category-changing' affixes, in the sense of Dowty (1978).

    5. Examples are adapted from Jha (1958).

    6. Excluding for the moment such ethical datives as me in Il va me te casser la gueule. Only some speakers find such sentences grammatical, so I shall, below, assume the dialect of less tolerant speakers.

    7. Note that since clitic-spelling is (like all other spelling-out rules) obligatory, we may just let the lexical rule (47) freely introduce instantiations of the feature complex $\begin{bmatrix} \alpha acc \\ \beta III \\ \gamma I \\ \delta refl \\ \varepsilon fem \\ \zeta sg \end{bmatrix}$ into the complex symbols associated with lexical verbs, even if some such instantiations don't correspond to a real clitic (as when both β and γ are '+'); this lack of correspondence will simply block the application of the obligatory spelling-out rule, and will thereby be filtered out as ungrammatical.

    8. It is immaterial to the present analysis whether [-III] in (62) cancels, replaces, or is simply added to the [+III] inherited from (61). I shall henceforth just assume replacement.

    9. The reader will have noticed that I am assuming the underlying generation of passive sentences, rather than their transformational derivation (unless this would be a transformation

operating before lexical insertion—see Johnson (1976) for discussion
of the claim that relation-changing operations such as passivization
(and 'faire-insertion'—see below) are prelexical).

10.   Assuming the second order feature [[αacc]] to be a proxy
for [+__αacc].

11.   Kayne (1975:269-81) correctly observes that seemingly
exceptional sentences such as on la laissera le manger do not really
have compound verbs.

12.   Note that Kayne introduces a second transformation to
handle 'faire-par' sentences.

13.   Voici will be such an expression: voici le livre; le voici.
It's questionable whether we'd want to call voici a verb in synchronic
French; yet, every other approach to French clitics with which I am
familiar would require voici to be a verb if me voici, le voici, etc.
are to be derived.   I, on the other hand, need only say that voici
is [+__+acc], which it clearly is.

14.   I assume that the form assumed by nonthird person singular
clitics is a function of their position within the group; thus, the
distinction between the allomorphs me/moi, te/toi could be provided
for with a late allomorphy rule.

15.   Recall that, for some speakers, ethical datives may cooccur
with other types of datives:

>   (i) ?Jean te lui a crêvé la gidouille.
>   (ii) ?Elle te me l'a présenté.

16.   The problem of providing a compositional semantics for
'adnominal' en without deriving it from an underlyingly adnominal
position is in many respects parallel to the problem of providing
such a semantics for correlative clauses, or, for that matter, for
restrictive relative clauses, when a NP-S analysis is assumed.   See
Bach and Cooper (1978) for a demonstration that the compositionality
principle is threatened by neither of the latter two constructions;
their claims may, I believe, be made to hold for the interpretation
of 'adnominal' en as well.

17.   Note, however, that this might be formulated as a constraint
on the formation of compound verbs.

18.   Unless we are to allow massive NP-deletion—in which case
we must also allow dummy common-nouns onto which to hang subsequently
deleted possessive determiners for the derivation of sentences like
dekhalthunh 'He saw yours'.

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