

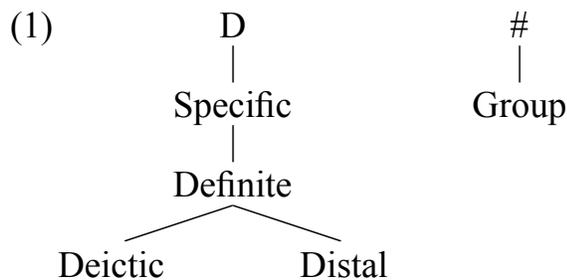
# THE ROLE OF REGISTER IN THE SYNTAX–MORPHOLOGY INTERFACE

Elizabeth Cowper and Daniel Currie Hall  
University of Toronto

## 1. Introduction

This paper argues for the crucial role of register in the formal process by which morphemes are selected for postsyntactic insertion. We show that in English and in French a vocabulary item (VI) whose morphosyntactic features exactly match those of a given syntactic node can be blocked from insertion by a clashing register feature, resulting in the selection of a less fully specified VI. Following Halle and Marantz (1993) and Cowper and Hall (2002), we assume that VIs are inserted postsyntactically by a cyclic algorithm that, for each maximal projection, selects the VI that realizes the largest possible subset of the features active in the current cycle.

Cowper and Hall's (2002) feature geometry for English nominals is shown in (1), and the vocabulary items that spell out the features are given in (2).



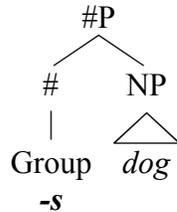
(2) Vocabulary Items

|              |                          |
|--------------|--------------------------|
| <i>-s</i>    | [Group]                  |
| ∅            | [D]                      |
| <i>sm</i>    | [D]                      |
| <i>a</i>     | [D, #]                   |
| <i>this</i>  | [Specific]               |
| <i>these</i> | [Specific, Group]        |
| <i>the</i>   | [Definite]               |
| <i>THIS</i>  | [Deictic]                |
| <i>THESE</i> | [Deictic, Group]         |
| <i>that</i>  | [Distal]                 |
| <i>those</i> | [Distal, Group]          |
| <i>THAT</i>  | [Deictic, Distal]        |
| <i>THOSE</i> | [Deictic, Distal, Group] |

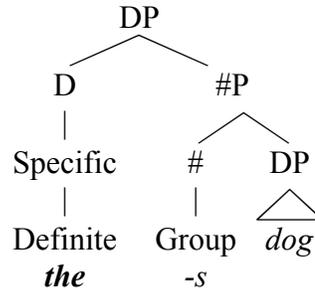
Vocabulary items compete for insertion as illustrated in (3) and (4), which show the derivation of the phrases *the dogs* and *a dog*. On the #P cycle in (3)a, there is a vocabulary item, *-s*, that matches the feature [Group], and thus realizes the dominating feature [#] by implication. Since this VI spells out all features so far present in the structure, it is the best possible candidate for insertion. In (3)b, the features in the DP cycle have been introduced, and there is again one VI capable of realizing all these features: *the*.

(3) Derivation of *the dogs*

a. #P cycle:



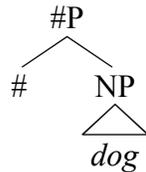
b. DP cycle:



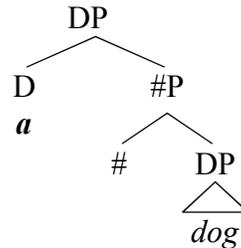
On the #P cycle of *a dog*, in (4)a, there is no VI available to realize [#] without at the same time spelling out features not present in the structure. However, on the DP cycle (4)b, the VI *a*, which realizes [D] and [#], is available for insertion; it thus spells out features of both projections on the second cycle.

(4) Derivation of *a dog*

a. #P cycle:



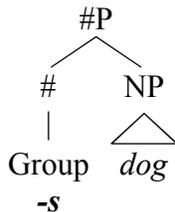
b. DP cycle:



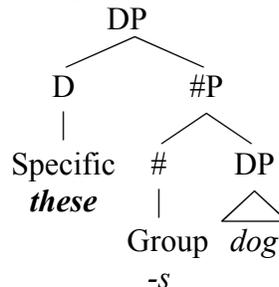
In a specific indefinite DP such as the one in (5), however, the most highly specified compatible vocabulary item seems not always to be inserted.

(5) *these dogs/sm dogs/dogs*

a. #P cycle:



b. DP cycle:



On the #P cycle, the plural suffix *-s* is inserted as expected, to spell out Group. On the DP cycle, the optimal VI should be unstressed presentational *these*, which matches both [Specific] (realizing [D] by implication) and [Group]. However, specific indefinite plural DPs are generally realized with the determiners *sm* or  $\emptyset$  in discourse that is not markedly informal. Cowper and Hall (2002) thus conclude that unstressed *this* and *these* bear a marked [Informal] register feature, which make them unavailable unless the context is informal.

#### (6) Vocabulary Items (revised)

|                     |  |
|---------------------|--|
| <i>-s</i>           | [Group]  |
| $\emptyset$         | [D]  |
| <i>sm</i>           | [D]  |
| <i>a</i>            | [D, #]   |
| <b><i>this</i></b>  | <b>[Specific] + [Informal Register]</b>        |
| <b><i>these</i></b> | <b>[Specific, Group] + [Informal Register]</b> |
| <i>the</i>          | [Definite]                                     |
| <i>THIS</i>         | [Deictic]                                      |
| <i>THESE</i>        | [Deictic, Group]                               |
| <i>that</i>         | [Distal]                                       |
| <i>those</i>        | [Distal, Group]                                |
| <i>THAT</i>         | [Deictic, Distal]                              |
| <i>THOSE</i>        | [Deictic, Distal, Group]                       |

In informal contexts such as (7), presentational *these* is available to spell out [Specific] and [Group], and its singular counterpart, *this*, spells out [Specific]. In other contexts, such as (8), the markedly informal items are unavailable, and so  $\emptyset$  or *sm* must be used in the plural, and *a* in the singular.

- (7) a. Like, there were **these dogs** running all over the yard, and....  
 b. So **this giant panda** lumbers into a bar and orders a sandwich....

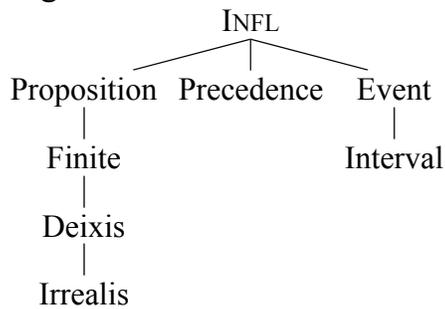
- (8) a. There were  $\emptyset$  **dogs** running all over the yard.  
 b. **A giant panda** unexpectedly appeared in the doorway of the tavern....

Unstressed presentational *this* and *these* are distinct from their stressed counterparts, the true demonstratives *THIS* and *THESE*, which spell out [Deictic] and do not bear marked register features.

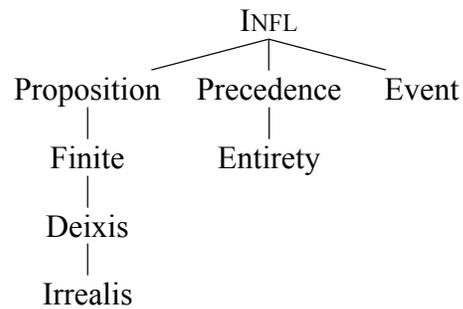
## 2. English INFL and French INFL

Turning now to the features of INFL, we adopt the geometries shown in (9) for the tense, mood, and aspect features of English and French, following Cowper (2003).

## (9) a. English



## b. French



The difference between the two systems is in the featural expression of aspect: the English system includes the feature [Interval], which French lacks, while French has [Entirety], which English lacks.

The presence of [Interval] in the representation of a clause causes the event denoted by the clause to be associated with an interval (a non-singleton set of temporally contiguous moments) rather than a single moment, giving the clause imperfective viewpoint aspect (Smith 1991). In English, [Interval] is spelled out by the participial suffix *-ing*, which appears in the various forms of the progressive, in both the present and the past. English eventive clauses without [Interval] have perfective viewpoint aspect. The difference between the two sentences in (10) is that in (10)a, INFL has [Interval], whereas in (10)b, [Interval] does not appear.

(10) a. The bear was eating the fish.

b. The bear ate the fish.

Because [Interval] is a dependent of [Event], the progressive is restricted to eventive clauses. A stative clause like the one in (11) is ill-formed in the progressive; to the extent that (11)b is grammatical, it requires an eventive interpretation of *resembling*, which is pragmatically implausible.

(11) a. The baby hippo resembled a huge eggplant.

b. #The baby hippo was resembling a huge eggplant.

In French, there is a contrast, illustrated in (12), that is superficially similar to that between the English progressive and simple past.

(12) a. L'ours mangeait le poisson. (*Imparfait*)

the-bear eat-IMP.3S the fish

'The bear was eating the fish.'

b. L'ours {mangea, a mangé} le poisson. (*Passé simple/passé composé*)

the-bear {eat-PASSÉ-SIMPLE.3S, have-PRÉS.3S eat-PART.PASSÉ} the fish

'The bear ate the fish.'

However, the distinction found in French cannot be treated as viewpoint aspect. The contrast is found in stative clauses, and cannot therefore be attributed

to a dependent of EVENT. (See also de Swart 1998 and Labelle 2002, who make the same point in a different framework.)

(13) a. Jeanne était fâchée. (*Imparfait*)

Jeanne be-IMP.3S angry

‘Jeanne was angry.’ (She may still be angry.)

b. Jeanne {fut, a été} fâchée. (*Passé Simple/passé composé*)

Jeanne {be-PASSÉ-SIMPLE.3S, have-PRÉS.3S be-PART.PASSÉ} angry

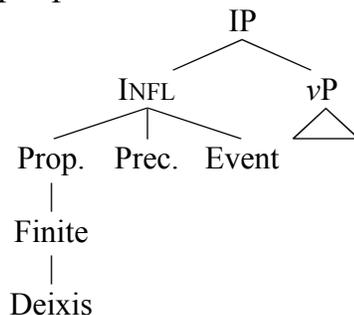
‘Jeanne was angry.’ (She has recovered her good humour.)

Also, the contrast is found only in the past, not in the present. Cowper (2003) argues that this reflects the fact that the feature involved, [Entirety], is a dependent of [Precedence]. In the absence of a marked dependent, [Precedence] indicates that the state or event denoted by a clause at least partially precedes the clause's temporal anchor. [Entirety], which can be spelled out by the *passé simple* or the *passé composé*, has the effect of placing the entire event or state prior to the temporal anchor.

### 3. Cyclic vocabulary insertion in English INFL

Cowper and Hall's (2002) cyclic vocabulary insertion algorithm predicts that the simple past will block insertion of the present perfect in a monoclausal structure containing both [Deixis] and [Precedence], as in (14). Because both features are active in the same cycle, their optimal realization is the single VI *-ed*.

(14) Simple past: One IP

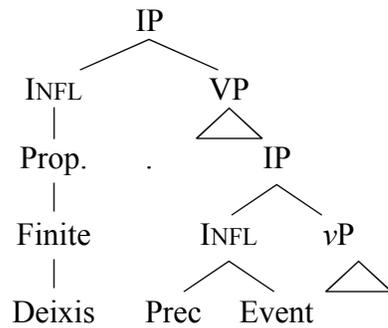


Vocabulary Items

|             |                      |
|-------------|----------------------|
| <i>-en</i>  | [Precedence]         |
| <i>-es</i>  | [Deixis]             |
| <i>-ed</i>  | [Deixis, Precedence] |
| <i>-ing</i> | [Interval]           |

In order for the present perfect to be inserted, the two features must appear in separate clauses as in (15). In the lower IP cycle, *-en* spells out [Precedence], and then *-es* spells out [Deixis] in the higher clause on the higher IP cycle.

(15) Present perfect: Two IPs



The English present perfect carries a well-known implication of current relevance, illustrated in (16), that provides evidence for the structure in (15).

- (16) a. #Henry VIII has married six women. (Present perfect)  
b. Henry VIII married six women. (Simple past)

We hypothesize that the current relevance requirement follows from the biclausal structure of the present perfect. The matrix clause of the present perfect is a stative present-tense clause, which like all matrix present-tense clauses requires its subject to exist, in the relevant sense, at the moment of speech, as in (17).

- (17) a. Henry VIII {#looks, ✓looked} like Humpty Dumpty with a beard.<sup>1</sup>  
b. Henry VIII {#is, ✓was} the founder of the Church of England.

In a simplex structure like (14), the insertion of *-en*, which spells out [Precedence], or *-es*, which spells out [Deixis], is blocked because the simple past suffix *-ed* matches both [Precedence] and [Deixis]. Note that this account is available only if [Precedence] and [Deixis] occupy a single syntactic head, or at least a single insertion cycle (see Cowper and Hall 2002 for a discussion of similar phenomena in the nominal system).

Having established the relevant syntactic and semantic differences between simple and composed precedent tenses in English, we turn now to the main point of this paper: the crucial role played by register in the French tense system.

#### 4. Morphological parallels between English and French

The relevant VIs of the French system are listed in (18). The VIs are identified by paradigm names, since we are not concerned here with  $\phi$ -feature agreement.

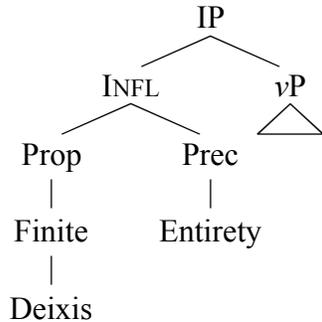
- |                        |                      |
|------------------------|----------------------|
| (18) <i>Présent</i>    | [Deixis]             |
| <i>Imparfait</i>       | [Deixis, Precedence] |
| <i>Passé simple</i>    | [Deixis, Entirety]   |
| <i>Participe passé</i> | [Entirety]           |

---

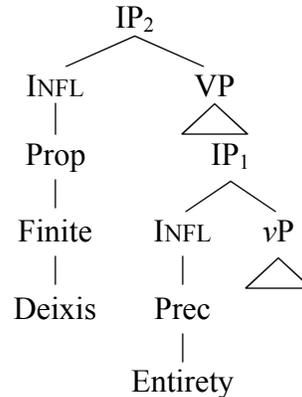
<sup>1</sup>*Looks* is acceptable here if the referent of *Henry VIII* is, for example, a portrait by Holbein, which still exists, but not if it is the king himself, who does not.

The features in (18) suggest that the French *passé composé*, which consists of the *participe passé* of the main verb, plus an auxiliary in the *présent*, should be inserted only when [Entirety] and [Deixis] appear in separate cycles, as in (19)b, being blocked by the *passé simple* in a monoclausal structure like the one in (19)a.

(19)a. *Passé simple* → one IP



b. Two IPs → *passé composé*



Just as *-ed* in English blocks the insertion of either *-en* or *-es* in the simplex structure in (14), we predict, from the feature specifications just given, that the *passé simple* should block the insertion of either the *participe passé* or the *présent* in (19)a. The *passé composé* should, like the English present perfect, spell out only a biclausal structure.

This prediction does not appear to be borne out: unlike the English present perfect, the *passé composé* carries no implication of current relevance. This is illustrated in (20), in which both the *passé simple* and the *passé composé* are seen to be compatible with a defunct subject. If the structure in (19)b is the only one in which the *passé composé* can be inserted, current relevance should be required, and sentences like (20)b should be infelicitous.

(20) a. Henri IV signa l'édit de Nantes.

Henry IV sign.PASSÉ-SIMPLE.3S the-edict of Nantes  
'Henry IV signed the Edict of Nantes.'

b. Henri IV a signé l'édit de Nantes.

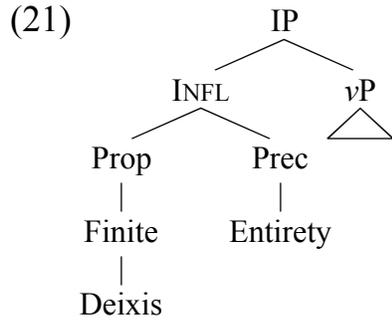
Henry IV have.PRÉS.3S sign.PART-PASSÉ the-edict of Nantes  
'Henry IV signed the Edict of Nantes.'

(20)b is semantically equivalent to (20)a, and therefore presumably spells out the configuration of features in (19)a. However, given that there is a single vocabulary item, the *passé simple*, that spells out these features, why is it possible to insert the two VIs making up the *passé composé*?

An observation about register sheds some light on this question. The *passé simple* is little used in spoken French, and in written French tends to be used in formal contexts only. In ordinary spoken French, the *passé composé* is used where we would predict the *passé simple*. Accordingly, we propose that the VI *passé*

*simple*, in addition to spelling out the features [Deixis] and [Entirety], also carries a marked [Formal] register feature.<sup>2</sup> Its use is thus restricted to markedly formal contexts, and it cannot be inserted to spell out a monoclausal INFL with [Deixis] and [Entirety] in other contexts.

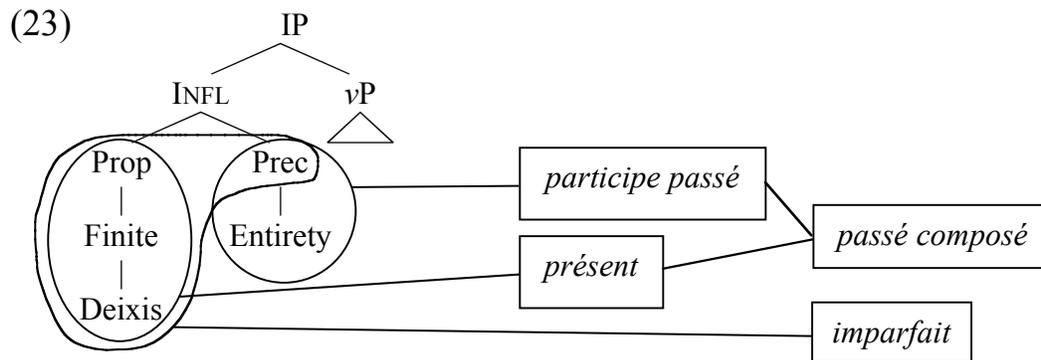
In the competition for insertion into the INFL in (21), the *passé simple* is now rendered ineligible, in most contexts, by the presence of the marked register feature, and so no longer blocks insertion of the *participle passé* and the *présent*. (Vocabulary items and their specifications are listed in (22).)



- (22)
- |                         |  |
|-------------------------|--|
| <i>Présent</i>          | [Deixis]                               |
| <i>Imparfait</i>        | [Deixis, Precedence]                   |
| <i>Passé simple</i>     | [Deixis, Entirety] + [Formal Register] |
| <i>Participle passé</i> | [Entirety]                             |

However, the *imparfait* is still in the competition. The *imparfait* would realize four of the five features to be spelled out: [Precedence] and [Deixis] explicitly, and [Finite] and [Proposition] by entailment. While the *passé composé* as a whole spells out all five features, each of its component VIs spells out fewer features than the *imparfait*: the *participle passé* realizes [Entirety] (and [Precedence] by implication), and the *présent* realizes [Deixis] (and thus also [Finite] and [Proposition]).

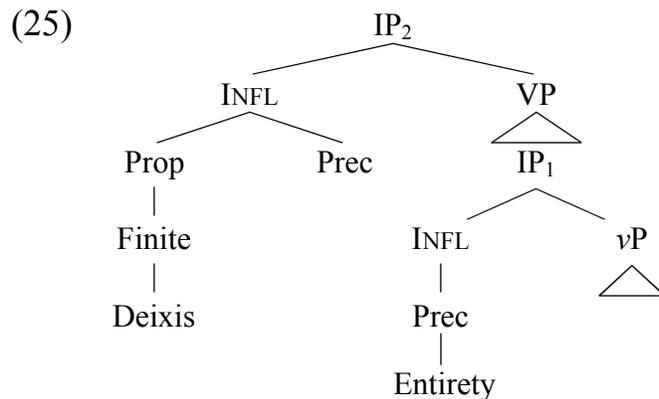
We infer from this that vocabulary insertion within a cycle does not consider only a single VI at a time, but rather compares possible combinations of VIs. In (23), then, the combination of the *présent* and the *participle passé* is preferred over the *imparfait*.



<sup>2</sup> More precisely, this register feature is carried by the VIs that realize both [Deixis] and [Entirety] in combination with various sets of  $\phi$ -features.

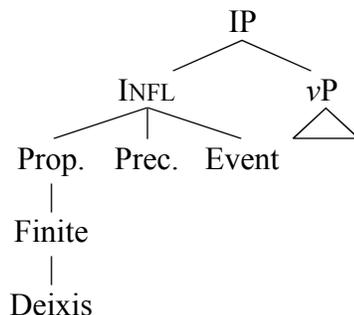
Taken together, the *participe passé* and the *présent* spell out all and only the features in the syntactic structure. The *participe passé* combined with the *imparfait* would also realize all five features, but would spell out [Precedence] twice, once explicitly and once by implication. We assume that in a monoclausal structure, this possibility is ruled out by something akin to the prohibition on double spell-out in #P proposed by Cowper and Hall (2002). The *imparfait* can be combined with the *participe passé* in a biclausal structure with two instances of [Precedence], yielding the *plus-que-parfait*, as in (24) and (25).

- (24) Pierre avait oublié son parapluie. Il est donc rentré en taxi.  
 Pierre have-IMP.3S forget-PP his umbrella. He is-PRÉS.3SG therefore return-PP in taxi  
 ‘Pierre had forgotten his umbrella. So he took a taxi home.’



Our proposal that competition takes place among combinations of VIs now raises a new question about the English data. Since the simple past and the present perfect spell out the same set of features, and neither is markedly formal, why isn't the English present perfect a possible spell-out of the monoclausal structure in (14)a, repeated below in (26)?

- (26) Simple past: One IP



| Vocabulary Items |                      |
|------------------|----------------------|
| -en              | [Precedence]         |
| -es              | [Deixis]             |
| -ed              | [Deixis, Precedence] |
| -ing             | [Interval]           |

The combination of *-es* and *-en* (i.e., the present perfect) would realize exactly the same features as the single VI *-ed* (the simple past). However, the current relevance requirement of the present perfect tells us that it is not a possible spell-out of a single clause. In order to ensure that simple past *-ed* blocks insertion of the present perfect *-en* and *-es*, we must assume that the insertion algorithm

economizes wherever possible: all other things being equal, it prefers to use fewer VIs rather than more. This preference is subordinate to the other principles of vocabulary insertion, as shown in (27).

(27) Principles of vocabulary insertion:

1. Insert no VI specified for features that do not appear in the syntactic structure.
2. Realize as many of the features in the syntactic structure as possible.
3. Insert as few VIs as possible.

## 5. Conclusion

Although register is orthogonal to the semantic categories of tense and aspect, it can indirectly affect the interpretation of VIs spelling out those categories through the mechanism outlined here. Distributed Morphology offers a way of formalizing Saussure's (1916) observation that meaning depends on contrast: the meaning difference between the English present perfect and the French *passé composé* follows from the fact that the present perfect minimally contrasts with a simple past tense belonging to the same register, while the *passé composé* does not.

## References

- Cowper, Elizabeth, and Daniel Currie Hall. 2002. The syntactic manifestation of nominal feature geometry. Presented at the annual meeting of the Canadian Linguistic Association, University of Toronto, May 2002.
- Cowper, Elizabeth. 2003. The geometry of interpretable features: Infl in English and Spanish. Ms., University of Toronto. <http://www.chass.utoronto.ca/~cowper/Interp.Features.2003.pdf>.
- Halle, Morris, and Alec Marantz. 1993. Distributed Morphology and the pieces of inflection. In *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, eds. Kenneth L. Hale and Samuel J. Keyser, 111–176. Cambridge, Mass.: MIT Press.
- Labelle, Marie. 2002. The Selectional Restrictions of French Past Tenses. *Canadian Journal of Linguistics* 27: 47–66.
- Saussure, Ferdinand de. 1916. *Cours de linguistique générale*. Paris: Payot.
- Smith, Carlota. 1991. *The parameter of aspect*. Dordrecht: Kluwer.
- Swart, Henriette de. 1998. Aspect shift and coercion. *Natural Language and Linguistic Theory* 16: 347–385.