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Centro Linguistico Interfacoltà

Università Ca' Foscari di Venezia

S.Croce 2161 - 30135 Venezia

Tel. 39-41-5241642, Fax 39-41-718259

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"Semi-lexical" motion verbs in Romance and Germanic

Anna Cardinaletti - Giuliana Giusti
SSLMIT University of Bologna – University of Venice

1. Introduction

The distinction between lexical and functional elements is a central one in current grammatical theory. This distinction is often based on the assumption that the two different types of categories constitute mirror patterns with respect to a wide range of semantic, morphological, and syntactic properties (cf. Abney 1987). However, it is sometimes not easy to decide whether an element belongs to either of the two classes. This may lead one to assume a third, half-way class of "semi-lexical heads" which share some properties of lexical categories and others of functional ones.

In this paper,[1] we discuss one instance of these cases, namely motion verbs such as

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"go" and "come" which enter a particular "inflected construction" across unrelated languages such as some Southern Italian dialects, American English and Swedish. We will see that in this construction, motion verbs share many properties with functional verbs such as auxiliaries, but they maintain their semantic content and few other lexical properties. They could thus provide a very good candidate for the class of semi-lexical heads.

It will turn out, however, that these semi-lexical heads cannot be identified by a fix set of properties which are shared by a coherent class of syntactic entities. We will observe cross-linguistic variation in the functional vs. lexical properties displayed by motion verbs. This disfavours the assumption of a "third type" category in addition to the other two opposite types. In the same way, it would not help to group different semi-lexical motion verbs into different categories, since this would multiply in no principled way the number of intermediate categories between lexical and functional categories. Our general claim is opposite to such a line of reasoning and it is set in (1):

(1) Semi-lexical motion verbs are lexical categories merged as functional heads.

(1) captures the fact that all the functional properties that can be claimed for motion verbs in the cases under consideration are actually lack or suppression of their canonical lexical properties. We will take this as evidence for the functional **usage** of such verbs.[2]

The paper is organized as follows. In section 2, we give the basic data and briefly dismiss three potential analyses of the inflected construction. In section 3, we focus on the functional usage of motion verbs in the inflected construction. This usage blocks a number of lexical properties that motion verbs usually display. In the inflected construction, they appear in a monoclausal structure forcing clitic climbing, "single event" interpretation, and a fix order of the two verbs. In some languages, they disallow the arguments and adjuncts typical of lexically used motion verbs. We account for these facts by proposing that the motion verbs under consideration are merged as functional heads in the extended projection (in Grimshaw's 1991 sense) of the lexical verb which

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Although the whole paper is a joint enterprise, for all academic purposes Anna Cardinaletti takes responsibility for sections 4-6, Giuliana Giusti takes responsibility for sections 1-3.

2. The proposal in (1) is a weak version of a more general proposal that does away with the lexical / functional distinction and takes all functional elements as lexical categories merged in the extended projection of a lexical item. In this way, functional elements lose some or all of their lexical properties while lexical categories remain the only categories in the lexicon.

follows them. A number of parallelisms with auxiliary verbs will confirm this hypothesis.

In section 4, we see that an analysis of these verbs as functional categories *tout court* cannot capture the fact that these verbs, differently from auxiliary usages of motion verbs, maintain their motion semantic content in the three languages under consideration, in American English they require an animate subject, and in Swedish they may have locative arguments and adjuncts. We will therefore propose that these verbs are lexical elements that are merged as functional elements.

In section 5, we set our analysis in the recent minimalist framework of Chomsky (1995), (1998). We assume a bare phrase structure building procedure which merges the relevant items from the lexicon in a strict cycle. By focussing on the merging points of motion verbs in the three languages, we find what independent properties of the languages under consideration give rise to the linguistic variation found in the lexical/functional behaviour displayed by these verbs.

2. The data and three potential analyses

Let us look at some data in Marsalese, a Western Sicilian dialect. In (2), two different constructions appear to be possible with the verb "go": The former, exemplified in (2a), is parallel to the infinitival construction also found in Italian (cf.: *Vado a prendere il pane*). The latter, exemplified in (2b), displays two inflected verbs:

(2) a. *Vaju a pigghiari u pani.* ("infinitival construction")
[I] go-1S to fetch-INF the bread

b. *Vaju a pigghiu u pani.* ("inflected construction")
[I]go-1S to fetch-1Sthe bread
'I go to fetch bread.'

Constructions similar to (2b) are also found in other Southern Italian dialects, such as Eastern Sicilian, Southern Apulian and Southern Calabrian (cf. Rohlfs 1969: §710, §761).

The inflected construction is not limited to the Romance area, but is also found in Germanic languages such as American English (3b,c) (cf. Carden and Pesetsky 1977; Jaeggli and Hyams 1993) and Swedish (4b) (cf. Wiklund 1996):

(3) a. *I go to buy bread.*

b. *I go and buy bread.*
c. *I go buy bread.*

(4) a. *Jag går för att göra mig en grogg.*
I go-PRES for to make-INF myself a grogg
b. *Jag går och gör mig en grogg.*
I go-PRES and make-PRES myself a grogg
'I go to make myself a grogg.'

Before we proceed with our investigation, we must dismiss three potential analyses of the inflected construction which might come to mind.

The inflected construction is not a coordination despite the apparently coordinative morphemes *and* in American English, *och* in Swedish and *a* in Marsalese diachronically derived from Latin AC (cf. Rohlfs (1969: §761), and section 4.2 below). Abundant syntactic evidence against a coordination analysis has been provided by Faraci (1970), Carden and Pesetsky (1977), Jaeggli and Hyams (1993) for American English, by Wiklund (1996) for Swedish, and by Cardinaletti and Giusti (1998) for Marsalese. We refer the interested reader to those works.

The inflected construction is not parallel to the finite construction found in some Southern Italian dialects in which the second finite verb is introduced by the particle *ku, mu/mi* (Rohlfs 1969: §717) or *u* (Francesco Giardinazzo, p.c.). As shown by Calabrese (1993) for Salentino, the finite construction contains a full clausal complement to a wide class of lexical verbs, while, as we will show extensively below, the inflected construction is monoclausal. If the inflected construction is different from the finite construction with *ku/mu/mi/u*, it is expected that the two can coexist in one and the same language. This is indeed the case of Milazzese (spoken in the town of Milazzo, North-Eastern Sicily), where both the inflected construction and the finite construction exist in addition to the infinitival construction (cf. Ruggeri 1999):

(5) a. *Vaju a pigghiari u pani.* ("infinitival construction")
[I] go-1S to fetch-INF the bread
b. *Vaju a pigghiu u pani.* ("inflected construction")
[I] go-1S to fetch-1S the bread
c. *Vaju mi pigghiu u pani.* ("finite construction")
[I] go-1S MI fetch-1S the bread
'I go to fetch bread.'

A detailed analysis of the finite construction and of the differences with the inflected construction is beyond the scope of this paper.

Finally, the lack of object sharing between the two verbs excludes that the inflected construction is parallel to serial verb constructions (cf. Baker 1989; Lee 1992 and Collins 1997 for recent discussion). This conclusion has been pointed out for American English by Baker (1989: 519,fn.3), Jaeggli and Hyams (1993: 322,fn.7) and Pollock (1994: 303,fn.19). The very same conclusion, we claim, holds for Marsalese and Swedish, since the inflected construction of these languages also lacks object sharing.[3]

3. Functional behaviour

In this section, we show that motion verbs in the inflected construction share many properties with auxiliaries. A general property that unifies auxiliaries and motion verbs is that both can occur either as lexical verbs or as functional verbs. In the latter case, auxiliaries lose all of their selectional and semantic properties and just retain their morphological properties. They can thus be considered as prototypical functional verbs. Auxiliaries differ in this respect from motion verbs which also retain some of their lexical properties, as will be claimed in section 4. Therefore, functional behaviour can be characterized as lack of (all or part of) lexical behaviour.

3.1. Closed classes

The motion verbs which can enter the inflected construction belong to a closed class:[4]

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3. An anonymous reviewer observes that the presence of the connecting element is further evidence against an analysis of (2)-(4) in terms of serial verbs. For tense and aspect specifications, cf. sections 3.5 and 3.7.1 below.

4. In American English, the "V *and* V" construction is also found with aspectual verbs such as *hurry up*, *try*, *be sure*, etc., the "V V" construction is also found with *hurry*, *try*, *stay*, *sit* (cf. Shopen 1971, Carden and Pesetsky 1977). In Swedish, the inflected construction is found with many other verbs, such as the following, from Wiklund (1996):

(i) Aspectual verbs: *fortsätta* 'continue', *börja* 'begin', *sluta* 'stop', ...
Control verbs: *se till* 'make sure', *glömma* 'forget', *pröva* 'try', ...

(6) Marsalese
a. iri 'go', viniri 'come', passari 'come by', mannari 'send'
b. *acchianari 'go up', *scinniri 'go down', *trasiri 'go into', *curriri 'run', ...

(7) American English (Shopen 1971; Carden and Pesetsky 1977)
a. go, come, run
b. *walk, *fly, *rush, ...

(8) Swedish (Wiklund 1996)
gå 'go', komma 'come', springa 'run', ...

Belonging to a closed class is a typical property of functional categories which is shared by the motion verbs entering the inflected construction. On the other hand, all motion verbs, including those in (6b)-(7b), can enter the infinitival construction, displaying a lexical behaviour in this respect.

As for which specific verbs belong to this closed class, they appear to be the "weaker" motion verbs in the sense of Ritter and Rosen (1996), i.e., the semantically most basic ones. The two "weakest" verbs "come" and "go" enter the inflected construction in all languages for all speakers, while "less weak" verbs such as "run" and "come by" display variation across languages and among speakers.

3.2. Fix order

In the languages under consideration, auxiliaries precede lexical verbs. If motion verbs are functional elements, we expect that in the hierarchical configuration, they precede the lexical verbs they are associated with. This is indeed what we find. The order of the two verbs is fix: the motion verb obligatorily precedes the other verb:[5]

(9) a. *Vaju a pigghiu u pani.*
[I] go-1S to fetch-1S the bread
b. **Pigghiu u pani a vaju.*

Locative verbs: *sitta* 'sit', *stå* 'stand', *ligga* 'lie' , ...

ta 'take'

Verbs denoting channel for a speech act: *skriva* 'write', *ringa* 'phone', ...

5. The # diacritic in (10b), as well as in the rest of the paper, signals that the sentence is grammatical under the irrelevant interpretation as a coordination.

[I] fetch-1S the bread to go-1S

(10) a. *I go and buy bread.*
b. *#I buy bread and go.*
c. *I go buy bread.*
d. **I buy bread go.*

The same observation has been made by Wiklund (1996: 36) for all verbs entering the inflected construction in Swedish. She provides examples with the verb "sit":

(11) a. *Den boken satt Lars och läste.*
that book-DEF sit-PAST Lars and read-PAST
b. **Den boken läste Lars och satt.*
that book-DEF read-PAST Lars and sit-PAST
'Lars was sitting and reading a book.'

Since, as we said, auxiliaries precede lexical verbs in the languages under consideration, the word order in (9)-(11) is expected under the hypothesis that the motion verb is merged as a functional head.

3.3. No arguments

The infinitival and the inflected construction are different with respect to the possibility of argument insertion. While the former is always compatible with the presence of an argument of the motion verb, the latter is never so in Marsalese and American English.

In Marsalese, a directional complement can be present only with motion verbs in the infinitival construction, as shown in (12a), where it immediately follows the motion verbs itself, but it is not possible in the inflected construction in (12b):[6]

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6. In (12), the complex preposition *agghiri a*, which can only be directional, clearly distinguishes between the two constructions. Any other locative preposition, such as *a*, *da*, *in*, etc., is ambiguous between a directional and a stative interpretation. When these prepositions are found in the inflected construction, they can only follow the lexical verb and must be interpreted as introducing a stative complement associated with the lexical verb. Cf. *a casa* in (i), which can only refer to the location where the event of eating takes place:

(i) *Va* (**a casa*) *a mangia* (*a casa*).
[he]go-3S (*home) to eat-3S (at home)
'He goes to eat at home.'

(12) a. *Va (agghiri a casa) a mangiari (*agghiri a casa).*
[he] go-3S (towards to home) to eat-INF (*towards to home)
'He goes towards home to eat.'
b. *Va (*agghiri a casa) a mangia (*agghiri a casa).*
[he] go-3S (*towards to home) to eat-3S (*towards to home)

The contrast in (12) follows from the assumption that a verb merged as a functional head cannot project its arguments.

A further case is provided by a specific property of the lexical verb *iri*. In (13), *iri* occurs with a semantically void clitic cluster. The cluster is formed by a reflexive and the locative *ni* 'from here' and provides no semantic meaning. It is obligatory if no other complement of the verb is merged in the clause, as in (13a), and optional in the presence of another argument, as in (13b):

(13) a. *Minni vaju.*
[I] $REFL_{CL}$-LOC_{CL} go-1S
b. *(Minni) vaju a casa.*
[I] ($REFL_{CL}$-LOC_{CL}) go-1S home
'I am going home.'

If the motion verb combines with an infinitival clause, as in (14a), the clitic cluster is optional. In the inflected construction (14b), the cluster is impossible:

(14) a. *(Minni) vaju a mangiari.*
[I] ($REFL_{CL}$-LOC_{CL}) go-1S to eat-INF
'I am going to eat.'
b. *(*Minni) vaju a mangiu.*
[I] (*$REFL_{CL}$-LOC_{CL}) go-1S to eat-1S
'I am going to eat.'

The same directional/stative ambiguity holds for the locative clitic *ci*. When it appears in the inflected construction, as in (ii), it can only refer to the locative complement of the lexical verb *mangiari* 'eat':

(ii) *Ci va a mangia.*
[he] $there_{CL}$ go-3S to eat-3S
'He goes to eat there.'

In (14a), *a mangiari* is the complement clause selected by the lexical motion verb. The presence of the complement clause makes *minni* optional as does the directional complement *a casa* in (13b). In (14b), the sequence *a mangiu* does not constitute a clausal complement to a lexical instance of the motion verb. The only possible analysis of the inflected construction is a monoclausal one (as will be argued for in more detail in 3.7), in which the motion verb is merged as a functional head of the extended projection of the lower verb (*mangio*, in this case). If the motion verb is merged as a functional element, the clitic cluster which usually combines with the lexical verb cannot be merged.

The same observation holds with other verbs that have a double usage as lexical verbs and as auxiliaries. The lexical verb *stari* optionally takes the same semantically void clitic cluster, as in (15a), but the cluster becomes ungrammatical when *stari* is used as an auxiliary of the progressive aspect, (15b):[7]

(15) a. (*Minni*) *staju a casa.*
[I] ($REFL_{CL}$-LOC_{CL}) stay-1S at home
'I am staying at home.'

b. (**Minni*) *staju mangiannu a casa.*
[I] (*$REFL_{CL}$-LOC_{CL}) stay-1S eat-GER at home
'I am eating at home.'

Aviri combines with the clitic *ci* in its lexical usage, as in (16a). When *aviri* takes a clausal complement as in (16b), the clitic is optional parallel to the case of *iri* in (14a). *Aviri* cannot be combined with *ci* in its auxiliary usage, as in (16c):

(16) a. *Ci haju 'na soro.*
[I] $there_{CL}$ have a sister
'I have a sister.'

b. (*Ci*) *haju ra aggiustari 'sta machina.*
[I] ($there_{CL}$) have-1S to fix-INF this car
'I have to fix the car.'

c. (**Ci*) *haju mangiatu a casa.*

---

7. Notice that lexical *stari*, contrary to lexical *iri*, always requires a locative complement. This is why with *stari*, the clitic cluster is never obligatory (contrary to what we have seen with *iri* in (13a)), but always optional, as in (15a).

d. [I] (*there$_{CL}$) have-1s eaten at home
'I have eaten at home.'

In all cases seen so far, an analysis of the inflected construction in terms of a functional usage of motion verbs is straightforward.

The same line of reasoning holds for American English. A directional complement of the motion verb can only occur with an infinitival complement, but it is impossible in both inflected constructions:

(17) *I go all the way there to eat.*

(18) a. *#I go all the way there and eat./*I go and eat all the way there.*
b. **I go all the way there eat. / *I go eat all the way there.*

As we will see in section 4.4 below, this does not hold for Swedish, where it is possible to merge a locative argument of the motion verb in the inflected construction. The fact that language variation is found with respect to what lexical properties are present or absent suggests that the correct way to look at the items under consideration is not to label them as either lexical, functional, semi-lexical or even semi-functional, depending on whether they are more lexical or more functional, but to view them as lexical items which can dispense with their selectional requirements and thereby be merged in the extended projection of another verb. In section 5, an attempt is made to understand the language variation observed.

3.4. No adjuncts

Contrary to what happens in the infinitival construction (19a), in the Marsalese inflected construction the motion verb cannot combine with adjuncts such as *c'a machina* 'by car'. In (19b) the adjunct could only be construed with the lexical verb *mangiari*, which produces a semantically anomalous sentence:[8]

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8. In (19a), the adjunct *c'a machina* follows the clausal complement *a mangiari*, as is always the case in the cooccurrence of adjuncts and complements:

(i) *Peppe va a casa c'a machina.*
Peppe go-3S to home by car
'Peppe goes home by car.'

(19) a. *Peppe va a mangiari c'a machina.*
Peppe go-3S to eat-INF by car
'Peppe goes to eat by car.'
b. **Peppe va a mangia c'a machina.*
Peppe go-3S to eat-3S by car

As for American English, an adjunct is possible both in the infinitival and in the "V *and* V" construction, but it is not allowed in the "V V" construction:

(20) a. *They go to eat by car.*
b. *They go and eat by car.*
c. **They go eat by car.*

In American English, only the motion verb in the "V V" construction loses the lexical property of being modified by an adjunct. Here, we observe syntactic variation in one and the same language as to the behaviour of the motion verb in slightly different constructions.

In Swedish, adjuncts behave like complements in that they can appear with the motion verb (cf. section 4.4 below).

3.5. Morphological restrictions

Marsalese and American English are parallel in that the motion verb in the inflected construction is possible with interesting (although not completely understood) morphological restrictions.

In Marsalese, only the "unmarked" indicative present and imperative forms are allowed. First and second plural persons are excluded, as shown in (21d,e) and (22b). The past indicative (23a), the imperfect indicative (23b) and the past subjunctive (23c) are all ungrammatical:[9]

The clausal complement *a mangiari* in (19a) thus behaves like a PP complement, while the lexical verb *a mangia* in the inflected construction (19b) does not.

9. The present subjunctive and the future indicative are not different from the present indicative and cannot be tested.

(21) a. *Vaju* *a pigghiu* *u pani.*
[I]go-1S to fetch-1S the bread
b. *Vai* *a pigghi* *u pani.*
[you] go-2S to fetch-2S the bread
c. *Va* *a pigghia* *u pani.*
[(s)he] go-3S to fetch-3S the bread
d. * *Emu* *a pigghiamu* *u pani.*
[we] go-1PL to fetch-1PL the bread
e. * *Iti* *a pigghiati* *u pani.*
[you] go-2PL to fetch-2PL the bread
f. *Vannu* *a pigghianu* *u pani.*
[they] go-3PL to fetch-3PL the bread
'I / you / etc. go to fetch bread.'

(22) a. *Va* *pigghia* *u pani!*
go-IMP-2S buy-IMP-2S the bread
'Go to fetch bread!'
b. **Iti* *pigghiati* *u pani!*
go-IMP-2PL buy-IMP-2PL the bread

(23) a. * *Ii* *a pigghiai* *u pani.*
[I] go-PAST-1S to fetch-PAST-1S the bread
b. * *Ia* *a pigghiava* *u pani.*
[I] go-IMPERF-1S to fetch-IMPERF-1S the bread
c. **Si tinn' issi a accattassi u pani ne sta butìa, spinnissi chiù picca.*
if [you] $REFL_{CL}$-LOC_{CL} go-SUBJ to buy-SUBJ the bread in this shop, [you] spend-SUBJ less

The descriptive generalization for the Marsalese verb *iri* in (21)-(23) is that the forms that contain the root *va-*, but not the forms that contain the root *e-/i-* can instantiate the inflected construction. The existence of two allomorphs is not specific of the pattern of the verb *iri*. Two allomorphs are also found overtly for the verb *viniri* 'come', which has the allomorph *ven-* for the 1st, 2nd, 3rd singular and 3rd plural persons of the present indicative and for the 2nd singular imperative and the allomorph *vin-* for the 1st and 2nd plural of the present indicative and for all persons of other tenses and moods. The fact that the other verb entering the inflected construction, *passari* 'come by', does not display an overt differentiation in its morphological pattern does not necessarily mean

that this verb does not have two homophonous allomorphs. In the inflected construction, *viniri* and *passari* undergo the same morphological restrictions as *iri*.

Allomorphy cannot be taken as the ultimate cause of the inflectional restrictions on the inflected construction. It shows that whatever the reason to single out the three singular persons and the 3rd plural of the present indicative and the 2nd singular of the imperative may be, this holds independently of the analysis of the inflected construction. Allomorphy must thus be the result of some general property of the verbal inflectional system which interacts with syntactic principles.

Notice that, in some obvious sense, the forms which are built with the allomorph *va-* or *ven-* are less marked than the forms built with *e-/i-* or *vin-*: present tense is less marked than past, indicative is less marked than subjunctive, singular is less marked than plural, 3rd person is less marked than 1st and 2nd person.

We can say that the functional usage of motion verbs in Marsalese is not only limited to semantically less marked verbs (namely, "weaker" verbs in the sense of Ritter and Rosen 1996, cf. section 3.1 above), but it is also limited to the less marked allomorphs of such verbs. A tentative generalization is in (24):

(24) The inflected construction is possible with the less marked forms of a verbal paradigm.

The restrictions on the American English constructions are different, due to the different morphological systems of the two languages. However, they are rather reminiscent of the Marsalese facts in that the only allowed form is the unmarked "base" form (cf. Shopen 1971; Carden and Pesetsky 1977):

(25) a. *John managed to go visit Harry every week.*
b. *Go visit Harry tomorrow*!
c. *John will go visit Harry tomorrow.*
d. *I / You / We / They go visit Harry every Thursday.*
e. **John goes visit Harry every afternoon.*
f. **John went visit Harry tomorrow.*
g. **John has gone visit Harry already.*
h. **John is going see Harry tomorrow.*

(26) a. *#John went and visited Harry.*
b. **John went and visit Harry.*
c. *John didn't go and visit Harry.*

d. *Did John go and visit Harry*?

Contrary to Marsalese and American English, in Swedish all tenses are allowed. In (27), for instance, the lexical verb has the same past form as the motion verb. To make sure that (27a) is not a coordination, in (27b) we provide an instance of extraction, which gives perfectly acceptable results:

(27) a. *Han gick på affären och köpte bröd.*
he go-PAST to shop-the and buy-PAST bread
'He went to the shop to buy bread.'
b. *Vad*$_i$ *gick han på affären och köpte* t_i?
what go-PAST he to shop-the and buy-PAST?
'What did he go to buy in that shop?'

But a very general property of the Swedish verb morphology is that there is no person specification. All tenses are unmarked for this feature.

The morphological restrictions in Marsalese and Am. English and the great freedom allowed to the inflected construction in Swedish, comply with the generalization (24). The differences can be reduced to language specific properties of verbal morphology and how it interacts with the inflected construction in each language (cf. sect. 5 below).

3.6. Invariant forms in Marsalese

The less marked specification of motion verbs in the Marsalese inflected construction can be proved empirically. Only in this construction, the motion verb *iri* can display an invariant form, homophonous to the 3rd person singular. Compare the infinitival construction in (28) with the inflected construction in (29):

(28) a. (*Eu*) *vaju / *va a pigghiari u pani.*
(I) go-1S / *go to fetch-INF the bread
b. (*Tu*) *vai / *va a pigghiari u pani.*
(you) go-2S / *go to fetch-INF the bread
c. (*Iddi/Idde*) *vannu / *va a pigghiari u pani.*
(they) go-3PL / *go to fetch-INF the bread

(29) a. (*Eu*) *vaju / **va** a pigghiu u pani.*
(I) go-1S / go to fetch-1S the bread

b. (*Tu*) *vai / **va*** *a pigghi* *u pani.*
(you) go-2S / go to fetch-2S the bread
c. (*Iddi/Idde*) *vannu / **va*** *a pigghianu* *u pani.*
(they) go-3PL / go to fetch-3PL the bread

The invariant form *va* can be regarded as a reduction of *vaju*, *vai* and *vannu*, namely a reduction of the inflected forms built with the allomorph *va-* of the verb *iri*. This explains why the invariant form is not possible in the 1st and 2nd person plural of the indicative present and with any tenses other than indicative present, which are built with a different allomorph of the verb *iri*, namely *e-/i-*:

(30) a. *(*Niatri*) ***va*** *a pigghiamu* *u pani.*
(we) go to fetch-1PL the bread
b. *(*Viatri*) ***va*** *a pigghiati* *u pani.*
(you) go to fetch-2PL the bread
c. *(*Eu*) ***va*** *a pigghiai* *u pani.*
(I) go to fetch-PAST-1S the bread

A language internal comparison shows that the choice of an invariant form is also available with other functional verbs, such as the auxiliaries *aviri* and *stari*, with similar restrictions: the invariant form is allowed with the three singular persons of the present indicative and incompatible with the plural persons and with tenses other than present indicative. We provide some examples of these restrictions in (31) and (32):

(31) a. (*Eu*) *un ci* *haju / **ha*** *statu mai.*
(I) not there$_{CL}$ have-1S / have been never
'I have never been there.'
b. (*Tu*) *un ci* *hai / **ha*** *statu mai.*
(you) not there$_{CL}$ have-2S / have been never
c. (*Niatri*) *un ci* *emu / *__ha__* *statu mai.*
(we) not there$_{CL}$ have-1PL / have been never
d. (*Eu*) *un ci* *avia / *__ha__* *statu mai.*
(I) not there$_{CL}$ have-IMPERF-1S / have been never

(32) a. (*Eu*) *ci* *staju / **sta*** *ennu.*
(I) there$_{CL}$ stay-1S / stay go-GER
b. (*Tu*) *ci* *stai / **sta*** *ennu.*
(you) there$_{CL}$ stay-2S / stay go-GER

c. (*Niatri*) *ci* *stamu / *sta* *ennu.*
(we) there$_{CL}$ stay-1PL / stay go-GER

d. (*Eu*) *ci* *stava / *sta* *ennu.*
(I) there$_{CL}$ stay-IMPERF-1S / stay go-GER

In their lexical usage, none of these verbs allows invariant forms, as is apparent in (33):

(33) a. (*Eu*) *ci* *vaju / *va.*
(I) there$_{CL}$ go-1S / go
'I go there.'

b. (*Eu*) *ci* *haju / *ha* *'na soro.*
(I) there$_{CL}$ have-1S / have a sister
'I have a sister.'

c. (*Eu*) *ci* *staju / *sta.*
(I) there$_{CL}$ stay-1S / stay
'I stay there.'

A full account of the optionally reduced forms displayed by auxiliaries in Marsalese is beyond the scope of this article. We can speculate that auxiliaries are merged into the relevant functional heads directly (cf. Cinque 1999a). As a consequence, they cannot check the features which are realized lower in the structure. With the additional assumption that auxiliaries may be merged higher than the person head, this can capture the lack of person features in (31)-(32). As we will see in section 5.1 below, a similar analysis can be proposed for the motion verbs in the inflected construction: motion verbs are always higher than the person head, since the inflectional features are checked by the lexical verb.

3.7. For a monoclausal analysis

A functional element is merged in the structure as part of an extended projection and it does not project its own. In our case, we expect the motion verb to be merged in the extended projection of the verb which follows it, giving rise to a monoclausal structure. This is supported by a wide range of syntactic properties.

3.7.1. Unique person, tense, and mood specifications

A defining property of the inflected construction in the three languages under

consideration is expressed in (34) and exemplified in (35)-(39):

(34) The two verbs in the inflected construction must share inflectional features.

(35) a. * *Ia* *a pigghiu* *u pani.*
[I] go-IMPERF-1S to fetch-PRES-1S the bread
b. * *Vaju* *a pigghiava* *u pani.*
[I] go-PRES-1S to fetch-IMPERF-1S the bread

(36) a. * *Ii* *a pigghiu* *u pani.*
[I] go-PAST-1S to fetch-PRES-1S the bread
b. * *Vaju* *a pigghiai* *u pani.*
[I] go-PRES-1S to fetch-PAST-1S the bread

(37) a. **I went buy bread.*
b. **I went and buy bread.*

(38) a. **I go bought bread.*
b. **I go and bought bread.*

(39) a. **Vi gick och köper bröd.*
we go-PAST and buy-PRES bread
b. **Vi går och köpte bröd.*
We go-PRES and buy-PAST bread

In Marsalese (35), we observe that an imperfect form of either verb cannot combine with a present form of the other verb. In (36), we observe the same case for past forms. In American English (37), a past form of either verb cannot combine with a base form of the other verb in the "V V" construction. In (38), we observe the same case for the "V *and* V" construction. Swedish (39) shows the same phenomenon.

If we assume, as is currently done, that only one tense, mood and person specification can be assigned to the extended projection of the verb, (34) strongly suggests a monoclausal analysis for the inflected construction.

3.7.2. Single event interpretation

Another defining property of the inflected construction in the three languages under consideration is expressed in (40):

(40) The two verbs in the inflected construction refer to a single event.

Shopen (1971: 257-258) notices that in American English the inflected construction does not have the same meaning as the infinitival construction. In the inflected construction, the motion verb and the predicate are interpreted as building a single event. Thus, while the sentence in (41a) refers to two different events and is true even if the purchase does not take place, (41b) is a contradiction. The event of going and that of purchasing must coincide, hence the continuation which negates the event of purchasing makes the sentence ungrammatical (sentences from Shopen 1971: 258):

(41) a. *They go to buy vegetables every day, but there never are any vegetables.*
b. **They go buy vegetables every day, but there never are any vegetables.*

This state of affairs is expected if the two verbs belong to one and the same extended projection. Since a similar analysis is also valid for the American English "V *and* V" construction, the fact that
(42) patterns with (41b) is not surprising:

(42) **They go and buy vegetables every day, but there never are any vegetables.*

The same observation obtains in Marsalese. The negation of the event of purchasing is possible with the infinitival construction, but impossible with the inflected one:

(43) a. *Vaju a accattari a cicoria gnignornu, ma unn'a trovu mai*
[I]go-1S to fetch-INF the chicory every day but [I] not it_{CL} find-1S never
'I go to buy chicory every day, but I can never find any.'
b. **Vaju a accattu a cicoria gnignornu, ma unn'atrovu mai*
[I]go-1Sto fetch-1S the chicory every day but [I] not it_{CL} find-1S never

Swedish gives the same result: The inflected constructions in (44) involve a single event interpretation. The second sentence negating the event of buying, thus, produces a very marginal acceptability:

(44) a. ??*De går och köper grönsaker varje dag, men det finns aldrig några*
they go-PRES and buy-PRES vegetables every day, but there are never any

'They go to buy vegetables every day, but there aren't ever any.'

b. ??*Hon gick och köpte grönsaker, men affären var stängd*
she go-PAST and buy-PAST vegetables, but store-the was closed
'She went to buy vegetables, but the shop was closed.'

We may wonder why the sentences in (44) are not judged with a star. This is because there is the marginal possibility to interpret them as coordinations. If the complement of the lexical verb is extracted, forcing the inflected construction interpretation, we obtain a deviant sentence:

(45) *Vad_i *går de och köper* t_i *varje dag men det finns aldrig några?*
what go-PRES they and buy-PRES every day but there are never any?

The single event interpretation can straightforwardly be captured by monoclausality.

3.7.3. Clitic climbing in Marsalese

In the Marsalese inflected construction, clitic climbing is obligatory. In other words, clitic pronouns obligatorily appear on the motion verb:

(46) a. * *Vaju a pìgghiulu.*
[I] go-1S to fetch-1S-it_{CL}

b. *U vaju a pigghiu.*
[I] it_{CL} go-1S to fetch-1S
'I go and fetch it.'

In this respect, the motion verb in the inflected construction patterns with the two functional verbs *aviri* and *stari* discussed above, (47)-(48), and differs from the motion verb in the infinitival construction in (49) and from modal verbs (50), where clitic climbing is preferred but not strictly obligatory (hence, the question mark on (49a) and (50a)):

(47) a. **Haju pigghiàtulu.*
[I] have-1S fetch-PAST.PART-it_{CL}

b. *L'haju pigghiatu.*
[I] it_{CL} have-1S fetch-PAST.PART
'I have fetched it.'

(48) a. **Staju pigghiànnulu.*
[I] stay-1S fetch-GER-it$_{CL}$

b. *U staju pigghiànnu.*
[I] it$_{CL}$ stay-1S fetch-GER
'I'm fetching it.'

(49) a. *?Vaju a pigghiàllu.*
[I] go-1S to fetch-INF-it$_{CL}$

b. *U vaju a pigghiàri.*
[I] it$_{CL}$ go-1S to fetch-INF
'I go to fetch it'

(50) a. *?Pozzu pigghiàllu.*
[I] can-1S fetch-INF-it$_{CL}$

b. *U pozzu pigghiàri.*
[I] it$_{CL}$ can-1S fetch-INF
'I can fetch it.'

Notice that although the lexical verb in (46) is finite and could in principle attract a proclitic pronoun, clitic climbing puts the clitic pronoun in front of the highest verb, i.e., the motion verb. Intermediate placing of the pronoun is ungrammatical in the inflected construction (51a), on a par with all other cases involving non-finite verbs, (51b,c,d,e) (also see section 5.1 below):

(51) a. **Vaju a u pigghiu.*
[I] go-1S to it$_{CL}$ fetch-1S

b. **Haju u pigghiatu.*
[I] have-1S it$_{CL}$ fetch-PAST.PART

c. **Staju u pigghiànnu.*
[I] stay-1S it$_{CL}$ fetch-GER

d. **Vaju a u pigghiàri.*
[I] go-1S to it$_{CL}$ fetch-INF

e. **Pozzu u pigghiàri.*
[I] can-1S it$_{CL}$ fetch-INF

The parallel behaviour of motion verbs and auxiliary verbs with respect to clitic climbing indicates that the inflected construction is a monoclausal structure. This implies that the motion verb is merged as a functional head in one and the same extended projection with the lexical verb.

3.7.4. Floating quantifiers and sentential adverbs in Marsalese

While in the Marsalese infinitival construction in
(52a), a floating quantifier (*tutti* 'all') can either follow the motion verb or the infinitival verb, in the inflected construction in
(52b) the quantifier cannot follow the motion verb and must follow the lexical verb:

(52) a. *I picciotti vannu (tutti) a pigghiari (tutti) u pani ne 'sta butìa*
the boys go-3PL (all) to fetch-INF (all) the bread in this shop
'The boys all go to buy bread in this shop.'
b. *I picciotti vannu (*tutti) a pigghianu (tutti) u pani ne 'sta butìa*
the boys go-3PL (*all) to fetch-3PL (all) the bread *ne 'sta butìa.*
in this shop

The contrast in
(52) suggests that in the inflected construction
(52b), the motion verb does not head its own clause. If it did, nothing should prevent it from being followed by a floating quantifier, as is the case in
(52a). The same point can be made on the basis of the distribution of frequency adverbs, such as *mai* 'never' in (53) below:

(53) a. *Un vaju (mai) a pigghiari (mai) u pani ne sta butìa*
[I] not go-1S (never) to fetch-INF (never) the bread in this shop
'I never go to buy bread in this shop.'
b. *Un vaju (*mai) a pigghiu (mai) u pani ne sta butìa.*
[I] not go-1S (*never) to fetch-1S (never) the bread in this shop

In the infinitival construction in (53a), there are two possible positions for the frequency adverb. In the inflected construction in (53b), the frequency adverb can occupy only one position. Although the free occurrence of the adverb in (53a) is not necessarily evidence for a biclausal analysis of the infinitival construction, the fixed position of the adverb in (53b) can straightforwardly be captured by a monoclausal

analysis of the inflected construction.

The restriction also operates on the distribution of quantifiers and adverbs cooccurring with the perfect auxiliary *aviri* 'have'. No such element can appear between the auxiliary and the past participle:

(54) a. *Ci hannu (*tutti) statu (tutti).*
[they] there$_{CL}$ have-3PL (*all) been (all)
'Everybody has been there.'

b. *Un ci haju (*mai) statu (mai).*
[I] not there$_{CL}$ have-1S (*never) been (never)
'I've never been there.'

Taking for granted that the auxiliary is a functional verb, the parallelism between (52b), (53b), and (54), together with the contrasts (52)-(53), can be interpreted as compelling evidence that *iri* in the inflected construction has a functional usage. Since the motion verb precedes the finite lexical verb, which in turn precedes floating quantifiers and frequency adverbs, we assume that it occurs in a very high functional head, higher than the head to which the finite verb moves in Marsalese (for the relative position of motion verbs and adverbs in the clause structure arrived at by Cinque (1999a), see section 5.1 below).

3.8. Concluding remarks

So far, we have observed that motion verbs in the inflected construction behave like functional verbs. Among other properties, they belong to a closed class, they occur in a fix order with respect to the other verb, they cannot have arguments or adjuncts, they display defective morphology. We have captured these facts by proposing that motion verbs appear in the extended projection of a lexical verb much in the same fashion as auxiliaries. This proposal has been further supported by a set of monoclausal properties of the inflected construction, such as the distribution of clitic pronouns, floating quantifiers, and sentential adverbs, the fact that motion verbs do not express an event separate from the one expressed by the verb following them and cannot have autonomous person and tense specifications.

4. Lexical properties

As we have anticipated in the course of the paper and in particularly in 3.3 and 3.4 above, the lack of lexical properties does not hold completely. In sections 4.1-2, we observe some general lexical properties retained by motion verbs in the inflected construction in the three languages under consideration here. In sections 4.3-4, we observe some cross-linguistic and even language-internal variation.

4.1. Semantic content

In all instances of the inflected construction seen above, the motion verbs behave like lexical verbs in that they preserve their semantic content. In this respect, they differ from the functional usages of motion verbs reported under (55):

(55) a. *La pasta va / viene mangiata subito.*
the pasta goes / comes eaten immediately
'Pasta must be / is eaten immediately.'

b. *La barca si andava / veniva approssimando alla riva.*
the boat REFL went / came approaching to-the shore
'The boat was approaching the coast.'

c. *Il va partir. / Il vient d'arriver.*
he goes leave / he comes of arrive
'He will leave.' / 'He has just arrived.'

d. *He is going to leave.*

In Italian (55a) and (55b), *andare* and *venire* are used as passive and progressive auxiliaries. In French (55c), *aller* and *venir* are used as aspectual verbs (future and retrospective, respectively). In American English (55d), *go* is used as a future auxiliary. In Swedish, the motion verb can in some cases express progressive aspect, as in (56a), where the locative preposition is stative. This usage is to be contrasted with the occurrence of motion verbs in the inflected construction (56b), where the preposition expresses the goal of the motion:

(56) a. *Han gick och köpte bröd i affären.*
he walked and bought bread in shop-the
'He was buying bread in that shop.'

b. *Han gick på affären och köpte bröd.*
he walked to shop-the and bought bread

'He went to that shop to buy bread.'

In (55) and (56a), the semantics of the motion verb does not involve motion to a goal.[10] We assume that in order to express a designated aspect, these instances of motion verbs lose all their semantic content. Motion verbs in the inflected construction do not display this property. They maintain their motion meaning and do not contribute any aspectual information to the clause.[11]

4.2. Selection of a connecting element

Motion verbs in the inflected construction select a connecting element, cf. *a* in Marsalese, *and* in American English, *och* in Swedish. As anticipated in section 2 above, these elements cannot be considered coordinative elements. They are like subordinative elements. Although they do not introduce a subordinate clausal complement, their occurrence is required by the presence of a motion verb of the kind which enters the inflected construction.

The connecting element of the inflected construction is different from the one selected by the lexical motion verbs in the infinitival construction.

In American English, the connecting element *and* is trivially different from the infinitival marker *to*.

In Marsalese, the connecting elements that appear in the inflected and in the infinitival construction, although homophonous, are not one and the same morpheme. We have seen in 3.7.4 above that they have a different distribution with respect to floating quantifiers and sentential adverbs. Diachronic considerations confirm this conclusion: According to Rohlfs (1969: §710, §761), in the infinitival construction, *a*

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10. This is also true of the occurrence of *go* in (ia), the "unexpected-event" construction discussed in Carden and Pesetsky (1977:89), whose paraphrase is (ib):

(i) a. *He went and hit me.*

b. *He up and hit me.*

Italian has a similar pseudo-coordination construction with *prendere* 'take':

(ii) *Prese e mi diede un colpo.*
[he] took and to-me$_{CL}$ gave a punch

'He went and hit me.'

11. Here, we agree with Pollock's (1994:304) criticism of Jaeggli and Hyams's (1993) treatment of American English *come* and *go* as aspectual auxiliaries.

derives from the Latin preposition AD; while in the inflected construction, *a* derives from the Latin coordinative conjunction AC used in spoken and late Latin.[12]
In Swedish, the two connecting elements are distinguished in writing; in the spoken language, they are however pronounced in a parallel way, [ɔ] (cf. Wiklund 1996: 34,fn.13):

(57) a. *Lars prövar att läsa.*
Lars try-PRES to read-INF
b. *Lars prövar och läser.*
Lars try-PRES and read-PRES
'Lars tries to read.'

The selection of a subordinative element is typical of lexical verbs. This is another lexical property retained by motion verbs in the inflected construction.

4.3. Secondary theta-role

As proposed by Shopen (1971: 259) and Jaeggli and Hyams (1993: 321), in American English, *come* and *go* assign a secondary (agentive) theta-role to the subject only when inserted in the inflected "V V" construction (58). Non-agentive subjects are grammatical if the motion verbs are used as lexical verbs, as in (59):

(58) a. *Big boulders (*come) roll down this hill every time there is an earthquake.*
b. *The smoke fumes (*go) inebriate the people upstairs.*
(59) a. *Big boulders come down this hill every time there is an earthquake.*
b. *The smoke fumes go upstairs and disturb the neighbours.*

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12. This is confirmed by some related dialects; cf., e.g., Calabrese in (i), in which the connecting element of the inflected construction is the same as the coordinative conjunction (from Rohlfs 1969:§759):

(i) *Sutta a la te finestra vegnu e staju.*
under the your window [I] come-1S and stay-1S
'I come and stand under your window'

The possibility of assigning theta-roles is a prerogative of lexical verbs. The fact that the motion verbs in the inflected construction also have a different theta-selection than their lexical counterparts shows that even in this "functional" usage they display lexical behaviour.

Notice that in the American English "V *and* V" construction, *come* and *go* do not assign a secondary (agentive) theta-role to the subject, which allows the occurrence of non-agentive subjects (from Shopen 1971: 259):[13]

(60) *The smoke fumes go and inebriate the people upstairs.*

As we will see in section 5.2 below, the English-internal difference can be due to an independent difference between the two inflected constructions, namely the different merging point of the motion verb in the two cases.
The animacy restriction is not operative in Marsalese, nor in Swedish:

(61) a. *U fetu di frittu ne vene a ngueta gnissira.*
the smell of fried food us_{CL} come-3S to bother-3S every evening
'The smell of fried food comes up and bothers us every evening.'

b. *A petra va / vene a ruzzulìa djassutta / assutta.*
the stone go-3S / come-3S to roll-3S there / here
'The stone goes rolling down there.' / 'The stone comes rolling down here.'

c. *A musica va a ngueta i cristiani djassupra.*
the music go-3S to bother-3S the people upstairs
'The music goes to disturb the people upstairs.'

(62) a. *Stora stenar kommer och rullar nerför berget.*
big boulders come-PRES and roll-PRES down hill-the
'Big boulders come rolling down the hill.'

b. *Röken kommer och förgiftar människorna.*
Smoke-the come-PRES and intoxicate-PRES people-the
'The smoke comes up and intoxicates the people.'

In conclusion, some instances of motion verbs can interact with the thematic structure

13. Some variation is found among speakers. According to David Pesetsky (p.c.), the "V *and* V" construction has an agentivity restriction as well.

of the lexical verb. This is expected under the hypothesis that the motion verb is used as a functional verb but retains some of its lexical properties. The fact that not all instances of motion verbs have this capacity but there is cross-linguistic variation is to be reduced, as will be discussed below in section 5, to different lexical properties of these verbs in the languages under consideration and to their different merging point in the different languages.

4.4. Locative arguments and adjuncts in Swedish

As anticipated above in sections 3.3 and 3.4, in the Swedish inflected construction, the motion verb can combine with an argument such as the directional *hit* in (63a) and/or with an adjunct such as *med bil* in (63b).[14] The possibility of extraction guarantees that we are dealing with an inflected construction and not with a coordination:

(63) a. *Vem*$_i$ *kom* *du* *hit* *och besökte* t_i?
who come-PAST you here and visit-PAST
'Who did you come here to visit?'

b. *Vad*$_i$ *for* *de* *med bil* *och köpte* t_i?
what go-PAST they with car and buy-PAST
'What did you go to buy by car?'

This piece of data contrasts with the Marsalese and American English facts discussed in sections 3.3 and 3.4 above. Language variation in this domain is however not surprising in our approach. If motion verbs are lexical heads merged in the extended projection of a different lexical head, they can be deprived of some of their lexical properties. Which properties they lose is partly due to the functional position in which they are merged, as will be more clear in section 5 below.

5. A bare phrase structure account

In this section, we discuss the location of the motion verb in the inflected construction. Language variation is found as to at which point of the derivation the lexical verb and, as a consequence, the motion verb is merged.

We assume a bottom-up bare phrase structure procedure, according to which the

14. The same holds for the other verbs which enter the inflected contruction (cf. fn. 4).

structure is built starting from the lexical requirements of theta role assignment expressed in the projection of a VP-shell *à la* Larson (1988); and proceeds building the extended projection of the verb to check the verbal morphology (in the functional heads), to check the Case on the arguments of the verb (in functional specifiers), and to make room for clausal adverbials (in functional specifiers).[15]

According to recent developments of the generative famework (cf. Chomsky 1995, 1998), the verb is merged in the VP already inflected and further moved to a higher projection in a strict-cycle fashion to check its features. When it reaches a point after which a different head is merged, the verb is "frozen" in that position and cannot further move. It can also happen that the verb stops in a position before Spell Out from which it moves after Spell Out.

The spell-out position of the verb is very different in the three languages under consideration. We try to derive the crosslinguistic variation observed in the inflected construction from this independent property of the verbal extended projection.

We observe that the connecting element (where present) and the motion verb are immediately higher than the spell-out position of the lexical verb. As a consequence, we find the connecting element and the motion verb very low in the structure in languages such as Swedish and American English in which the lexical verb does not move too high; while we find it rather high in the structure in Marsalese, in which the lexical verb reaches a high structural position. The generalization can be formulated as in (64):[16,17]

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15. We have no claim as to the order of these operations.

16. We abstract away from the presence of the connecting element which is irrelevant to our discussion here. We also disregard language variation as to whether the connecting element is present or not.

17. The discussion leads us to establish a further parallelism between motion verbs and auxiliaries. In the inflected construction, the motion verb must combine with a specific form of the lexical verb, namely an inflected form, and its merging point depends on the spell-out point of the lexical verb. Being the lexical verb inflected, the motion verb is also inflected and merged after the lexical verb has finished its overt checking. In this framework, we expect that auxiliaries, which combine with specific verbal forms (i.e., "have" combines with a past participle and "be" combines with the progressive form), are merged at different points, depending on the different morphological specifications of the lexical verb. A hint to this effect is provided by the different distribution of e.g. floating quantifiers with the Marsalese auxiliaries *aviri* and *stari*. Compare (54a) above, repeated here as (ia), with (ib):

(i) a. *Ci* *hannu* (**tutti*) *statu* (*tutti*).
[they] there$_{CL}$ have-3PL (*all) stay-PAST.PART (all)

(64) The motion verb immediately precedes the lexical verb which has reached its spell-out position in the derivation.

We correlate this difference in position to the possibility for the motion verb to project its own lexical arguments or adjuncts by means of the following line of reasoning: The higher up in the structure the motion verb is merged, the less lexical properties of the motion verb can be realized in the structure. The crosslinguistic variation is therefore reduced to the independent properties of verb placement in the different languages.

If the motion verb is inserted very low in the structure (in the upper part of the VP-shell), the structure building procedure is still at a point in which its arguments and adjuncts can be projected. This is the case of the Swedish inflected construction. If the motion verb is inserted relatively low (in the low parts of the extended projection), it is too late for the projection of a directional argument, but there is room for a subject to which a secondary theta-role can be assigned. This is the case of the American English "V V" construction. If the motion verb is merged a bit higher, as in the American English "V *and* V" construction, there is room for the adjuncts of the motion verb. Finally, if the motion verb is merged higher than the merging point of adjuncts, nothing else relative to the thematic frame of the motion verb can be projected. This is the case of the Marsalese construction.

The inflected construction thus provides evidence that the order of merging of complements in the VP-shell is the one in (65). (65) should be read from right to left in a bottom up procedure:

(65) adjuncts > external argument > internal arguments

'Everybody has been there.'

b. *Ci* *stannu* (*tutti*) *ennu* (*tutti*).
[they] there$_{CL}$ stay-3PL (all) go-GER (all)
'Everybody is going there.'

The different distribution of the floating quantifier suggests that the gerundive lexical verb *ennu* in (ib) is lower than the past participle *statu* in (ia), which implies that auxiliary *stari* in (ib) is merged lower than auxiliary *aviri* in (ia). Much like the motion verb in the inflected construction, the different merging point of the auxiliary is related to the different morphological specifications on the lexical verb.

5.1. The structure of the inflected construction in Marsalese

Let us start with Marsalese. In this language, the lexical verb moves at least as high in the functional structure as in Italian. This is established by looking at the relative position of verbs and adverbs, using the adverb hierarchy argued for by Cinque (1999a): *ora* 'now' > *forse* 'maybe' > *di solito* 'usually' > *spesso* 'often' > *già* 'already' > *sempre / mai* 'always / never':[18]

(66) a. *Peppe (*sempre)pigghia* (***sempre***) *u pani ne 'sta butìa.*
Peppe (*always) fetch-3S (always) the bread in this shop
'Peppe always buys bread in this shop.'

b. *Peppe (*già) pigghia* (***già***) *u pani ne 'sta butìa.*
Peppe (*already)fetch-3S (already) the bread in this shop
'Peppe already buys bread in this shop.'

c. *Peppe* (***ora***) *pigghia (*ora) u pani ne 'sta butìa.*
Peppe (now) fetch-3S (*now) the bread in this shop
'Peppe now buys bread in this shop.'

The sequence "motion verb + *a* + lexical verb" in (67) appears below *ora* and above *già* just like the simple lexical verb in (66):

(67) a. *Peppe (*sempre)va (*sempre) a (*sempre) pigghia*
Peppe (*always) go-3S (*always) to (*always) fetch-3S
(***sempre***) *u pani ne 'sta butìa.*
(always) the bread in this shop

b. *Peppe (*già) va (*già) a (*già) pigghia*
Peppe (*already) go-3S (*already) to (*already) fetch-3S
(***già***) *u pani ne 'sta butìa.*
(already) the bread in this shop

c. *Peppe* (***ora***) *va (*ora) a (*ora) pigghia (*ora)*
Peppe (now) go-3S (*now)to (*now) fetch-3S (*now)
u pani ne 'sta butìa.
the bread in this shop

We propose that in the inflected construction (67), first the verb *pigghia* checks its

18. The adverbs *forse* 'maybe', *di solito* 'usually' and *spesso* 'often' do not exist in Marsalese.

features in the functional position above *già*, then the connecting element *a* is merged: the resulting node is an extended projection of the lower lexical verb. Successively the motion verb *va* is merged, and the resulting node extends the extended projection of the lower verb. After this, the structure building procedure continues, for example, to merge a different class of adverbs, such as *ora* in (67c), or a clitic pronoun, as in (68a) (cf. section 3.7.3 above):

(68) a. *U vajua pigghiu.*
[I] it_{CL} go-1S to fetch-1S
'I go and fetch it.'

b. **Vaju a u pigghiu.*
[I] go-1S to it_{CL} fetch-1S

c. *U pigghiu.*
[I] it_{CL} fetch-1S
'I take it.'

The ungrammaticality of (68b) shows that the clitic pronoun is not merged immediately higher than the lexical verb, in contrast with the simple case in (68c), but after the motion verb is merged, (68a).

In the imperative mood, the lexical verb moves higher than in the indicative mood, as is apparent from the position of the hierarchically high adverb *ora* and of the clitic pronoun. Compare (69a) with (67c) and (69b) with (68c):

(69) a. *Pigghia ora u pani!*
fetch-IMP-2S now the bread
'Take bread now!'

b. *Pigghialu!*
fetch-IMP-2S-it_{CL}
'Take it!'

The same is true for the sequence "motion verb + lexical verb" in an imperative inflected construction, which precedes both the hierarchically high adverb *ora* and a clitic pronoun:[19]

19. Notice that in (70) the connecting element *a* is missing. This is another signal that an imperative verb is higher than an indicative verb.

(70) a. *Va* *pigghia* *ora* *u pani*!
go-IMP-2S fetch-IMP-2S now the bread
b. *Va* *pigghialu*!
go-IMP-2S fetch-IMP-2S-it$_{CL}$

The evidence concerning indicative and imperative verbs, thus, points to the same conclusion: the checking of verb-related features such as tense, agreement and mood precedes the merging of the motion verb.

Being merged in such a high head, the motion verb cannot interact in any way with the thematic structure of the lexical verb. As we have seen in the first part of the paper, in Marsalese the motion verb cannot project any arguments and adjuncts, nor can it assign a secondary θ-role to the external argument.

As a second consequence, being merged in a head higher than the checking domain of the lexical verb, the motion verb cannot check its features in the canonical way (by moving to a designated functional head). It is thus not surprising that the motion verb cannot have all the features of an inflected verb and is restricted to some persons and moods (the 1st, 2nd, 3rd singular and 3rd plural present indicative and 2nd singular imperative, cf. section 3.5). Two questions now arise: how can these features be checked, and why can the motion verb have only these features? We propose that these features are checked in a parasitic way, by copying the features of the inflected lexical verb onto the motion verb. The copying procedure guarantees that the motion verb has the same features as the lexical verb (cf. section 3.7.1). The restriction of the inflected construction to the verbal forms mentioned above is not surprising if these features, being unmarked (cf. section 3.5), do not need to be checked in the canonical way, but it suffices for them to be copied from an inflected verbal form. Remember that Marsalese motion verbs may display an invariant form in the unmarked persons and moods (cf. section 3.6). We conclude that no feature copying has taken place in this case, or, alternatively, that the copying procedure has an optional morphological manifestation.

Notice finally that the motion verb in the inflected construction is a different element from Cinque's (1999b) andative verb, which is very low in the structure in Marsalese as well. In (71), we provide Cinque's hierarchy, exemplified in Italian (72) and in Marsalese (73):

(71) ... > Causative > ... Andative > ... V

(72) a. *Ce lo fecero andare a prendere subito.*
[they] to-us$_{CL}$ it$_{CL}$ made-3PL go-INF to fetch-IN immediately
'They made us go to fetch it immediately.'

b. *?Le siamo andate/i a far firmare a Gianni*
[we]them$_{CL}$ are gone$_{FEM/MASC}$ to make-INF sign-INF by Gianni
'We went to make Gianni sign them.'

(73) a. *U fazzu iri a pigghiari a Paola.*
[I] it$_{CL}$ make-1S go-INF to fetch-INF by Paola
'I make go Paola fetch it.'

b. ?? *U vaju a fari pigghiari a Paola.*
[I] it$_{CL}$ go-1S to make-INF fetch-INF by Paola

In (72a) and (73a) the andative verb appears lower than the causative verb. In (72b) and (73b) it appears higher than the causative, yielding very marginal results.
Contrary to the andative verb in (71), the motion verb in the Marsalese inflected construction appears higher than the causative verb, as expressed in the hierarchy (74) and exemplified in (75):

(74) Inflected construction: ... > Motion verb > ... Causative > ... V

(75) *U picciriddu u va a fa lavari a su matri.*
the child it$_{CL}$ go-3S to make-3S wash-INF by his mother
'The child goes to make it be washed by his mother'

If the structure building procedure obeys the universal hierarchy proposed by Cinque (1999a, 1999b), we must consider the motion verb and the andative verb as two different elements given their occurrence at different points in the structure. In such a framework, it is predicted that the two can cooccur in the order expressed in (76), as is indeed the case in (77):[20]

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20. (75) and (77) raise a general question as to the nature of the second inflected verb, which is not necessarily the lexical verb. In both cases, the second inflected verb is the causative, which in (75) embeds the lexical verb *lavari* 'wash' and in (77) embeds the andative verb *iri* which, in turn, embeds the lexical verb *pigghiari* 'fetch'. In Cinque's (1999b) analysis, both the causative and the andative are functional verbs merged in the extended projection of the lexical verb. Differently from the motion verb

(76) ... > Motion Verb > ... Causative > ... Andative > ... V

(77) *U va(ju) a fazzu iri a pigghiari a Paola.*
[I] it_{CL} go(-1S) to make-1S go-INF to fetch-INF by Paola
'I go to make Paola go to fetch it.'

The cooccurrence of the motion verb and the andative verb reinforces Cinque's hypothesis of a universal hierarchy on the one hand. On the other hand, it also reinforces our hypothesis that some languages have the possibility to merge a motion verb (belonging to a closed class) after merging the lexical verb in its spell-out position. In other words, the motion verb in the inflected construction is a language particular device which adds up to the universal hierarchy present in all languages.

The natural question arises as to how the child can acquire this construction. We take the presence of uninflected auxiliaries and/or the presence of uninflected forms of the motion verb as evidence for the possibility to merge a verbal head which does not need to check its features in the canonical way, but can check features via copying. As a matter of fact, all dialects which display the inflected construction also display invariant forms of the motion verb. On the other hand, Italian lacks both invariant forms and the inflected construction. The same is true of a Calabrian dialect spoken in the town of Bovalino Marina (in the province of Reggio Calabria), which displays neither invariant forms nor the inflected construction (Francesco Giardinazzo, p.c.). We take this not to be accidental, but depending on the different possible checking procedures in the two types of languages. Further comparative research is needed to establish whether this correlation holds universally and whether the presence of uninflected form is not only a necessary but also a sufficient condition for the presence of the inflected construction.

5.2. The structure of inflected constructions in American English

In American English, we have observed two constructions: "V V" and "V *and* V". In both constructions, the lexical verb must remain very low and does not check all its features prior to the merging of the motion verb.

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in the inflected construction, they are merged before the lower verb checks tense and person features. As a consequence, they retain the possibility to check tense and person features and to reach the spell-out merging point of the verb. The motion verb in the inflected construction is inserted after this point is reached.

The combinations of modals and auxiliaries with the motion verb in (78)-(79) show that, like lexical verbs and differently from auxiliaries and modals, the sequence "motion verb (*and*)" cannot precede auxiliaries, may follow modal verbs and the infinitival marker *to*, and can cooccur with *do*-support:

(78) a. **They go have eaten.* (Shopen 1971)
b. **They go be eating.*
c. *He should go eat.*
d. *He tried to go eat.*
e. *Did they go borrow the money right away?*

(79) a. **They go and have eaten.*
b. **They go and be eating.*
c. *He should go and eat.*
d. *He tried to go and eat.*
e. *Did they go and borrow the money right away?*

According to the classical analysis by Pollock (1989), in English the verb moves very little or does not move at all, procrastinating the checking procedure after Spell Out. As for the inflected construction, we must assume that after the motion verb is merged (regardless of the presence of the connecting element *and*, which we treat parallel to the Marsalese *a*), it is impossible for the lexical verb to further move to a functional head at LF, due to minimality considerations. This captures the fact that in American English, only the unmarked bare form, which need not be checked, enters the inflected constructions. The motion verb does not undergo a similar structural restriction and could in principle check its features at LF. However, being in the extended projection of the lexical verb, it cannot display different features with respect to the lexical verb. This is the reason why also the motion verb must appear in its base form.[21]

Since in American English, the motion verb is merged very low, it may retain some of its lexical properties, among which the possibility to assign a secondary θ-role to the

21. This analysis is different from Pollock's (1994) in that we do not assume that the lexical verb incorporates into the motion verb. However, the motivation of the restriction to the base form reduces in both Pollock's analysis and ours to the impossibility for one of the two verbs or both to move to a higher functional head for checking. In Pollock's analysis, it is the motion verb which is blocked from checking its features due to the fact that it is part of an incorporated head. In our analysis, it is the lower verb which should check its features, and the impossibility to do so is reduced to minimality considerations.

subject in the "V V" construction, as observed in section 4.3. This is not the case in the "V *and* V" construction, where the presence of the functional head realized by *and* clearly shows that the motion verb is merged higher than in "V V". The English-internal difference can thus be due to the different merging point of the motion verb.

Partial support for this claim comes from the distribution of the motion verb with respect to negation and sentential adverbs. While in the "V V" construction, the motion verb must follow negation and adverbs (80a,b), (81a,b), in the "V *and* V" construction, it can marginally precede them (sentences (80c,d), (81c,d)):[22]

(80) a. *Do not go visit Harry.*
b. **Go not visit Harry.*
c. *Do not go and visit Harry.*
d. *?Go and not visit Harry.* (Carden and Pesetsky 1977: 90)

(81) a. *I seldom / often go talk to my advisor.* (Jaeggli and Hyams 1993: 319)
b. **I go seldom / often talk to my advisor.*
c. *I seldom / often go and talk to my advisor.*
d. *?I go seldom / often and talk to my advisor.*

Furthermore, while the motion verb in the "V V" construction must follow the causative verb *make*, it can marginally precede it in the "V *and* V" construction:

(82) a. *They always make me go buy bread.*
b. **They always go make me buy bread.*

(83) a. *They always make me go and buy bread.*
b. *?They always go and make me buy bread.*

As seen above, the different placement of the motion verb in the two American English constructions correlates with their different capacity of imposing selectional restrictions on the external argument. In both cases, however, the motion verb is merged too high to be able to select internal arguments. As for the capacity of projecting adjuncts, this is

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22. Cf. also the perfect sentence in (i):

(i) *Go and not bother Harry.*

The construction *try and* allows a similar placement of the aspectual verb (from Carden and Pesetsky 1977: 90):

(ii) *?Try and not get lost.*

preserved in the "V *and* V" construction, but it is unexpectedly not found with the "V V" construction. We repeat the relevant examples for convenience:

(84) a. *They go to eat by car.*
b. *They go and eat by car.*
c. **They go eat by car.*

We suspect that the impossibility of (84c) correlates with the fact that the adjunct selected by the motion verb must follow the lexical verb, as shown in the grammatical (84a) and (84b). In antisymmetric terms, this word order is obtained by moving a projection of the lexical verb across the adjunct. While this is possible for the bigger XPs *to eat* in (84a) and *and eat* (84b), it is impossible for the bare verb *eat* in (84c).

5.3. The structure of the inflected construction in Swedish

In Swedish, tensed verbs occur very low in the structure. They follow all adverbs and negation:

(85) a. *Jag vet att Kalle förmodligen sjunger.*
I know that Kalle probably sing-PRES
b. *Jag vet att Kalle inte sjunger.*
I know that Kalle not sing-PRES
'I know that Kalle does not sing.'

(85) shows that Swedish tensed verbs do not move to the high Infl positions to check their features before Spell Out. Since Swedish does not have any person features in its verbal inflection, nor does it have any counterpart to English *do*-support (cf. Vikner 1997), we assume that verb movement to the high Infl positions also does not take place after Spell Out. Let's see the consequences of this assumption for the inflected construction.

After the lexical verb is merged, the connecting element *och* and successively the motion verb are merged. At this point, no further movement is required for either verb. The two verbs have the same tense/mood features. As in Marsalese, the features of the

lexical verb are copied onto the motion verb.[23] The bottom-up procedure continues to merge adverbs such as *förmodligen*, which are universally merged rather early, according to Cinque's hierarchy. This is represented in the embedded clause in (86):

(86) *Jag vet att Kalle förmodligen sitter och sjunger.*
I know that Kalle probably sit-PRES and sing-PRES
'I know that Kalle probably sits and sings.'

In main clauses, the bare phrase structure building procedure continues, as expected, and moves the higher verb (namely the motion verb) to the verb-second position, as represented in (87) (sentences from Josefsson 1991: 142):

(87) a. *Kalle sitter säkerligen och fiskar abborre.*
Kalle sit-PRES probably and catch-PRES perch
'Kalle is probably sitting and catching perches.'
b. **Kalle sitter och fiskar säkerligen abborre.*
Kalle sit-PRES and catch-PRES probably perch

(87a) confirms that merging of the motion verb in the inflected construction in Swedish is very early, much earlier than the application of the "Verb-second rule". This excludes (87b), where first the lexical verb is moved to "second position", then the motion verb is merged.

Very similar observations hold for imperatives. While in simple sentences, the lexical verb moves to a high position preceding negation, as in (88), in the inflected construction it is the imperative motion verb alone which appears before negation, (89):[24]

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23. Although feature copying is present in both Wiklund's (1998) analysis and ours, the two proposals are very different. Wiklund takes both the motion verb and the verb following it to be lexical verbs. According to Wiklund, the verb following the motion verb projects a reduced extended projection, which is a complement to the motion verb. The copying procedure goes the opposite direction with respect to our analysis: features of the motion verb are copied onto the verb following it.

24. The inflected construction thus provides definitive evidence that the movement of the inflected verb to the verb-second position (ending up in second position in e.g. declarative clauses and in first position in e.g. imperative clauses) is not triggered by feature checking. If it were, (87b) and (89b) should be grammatical.

(88) *Rök inte här!*
smoke-IMP not here
'Don't smoke here!'

(89) a. *Kom inte och rök här!*
come-IMP not and smoke-IMP here
'Don't come and smoke here!'

b. **Kom och rök inte!*
come-IMP and smoke-IMP not

In order to understand the fact that in Swedish, the motion verb can retain most of its lexical properties, we propose that it is merged in the structure earlier than its American English counterpart. Notably, it can extend the Larsonian VP-shell projecting a lexical VP in the specifier of which a locative argument is merged. The possibility of extraction diplayed in (90) simply makes sure that we are dealing with an inflected construction and not with a coordination:

(90) a. *Jag vet inte vad de åker på resturang och äter.*
I know not what they go-PRES on restaurant and eat-PRES
'I don't know what they go to the restaurant to eat.'

b. *Jag vet inte vad de åkte på affären och köpte.*
I know not what they go-PAST on shop and buy-PAST
'I don't know what they went to the shop to buy.'

In the embedded construction (90), the motion verb precedes the locative complement. This shows that the motion verb projects its complement and then moves higher. The reasons of this movement are irrelevant to our point here and must be the same that apply when the motion verb is a lexical verb. In this respect, (90) is parallel to (91):

(91) a. *Jag vet inte vem som åker på resturang.*
I know not who that go-PRES on restaurant
'I do not know who goes to the restaurant.'

b. *Jag vet inte vem som åkte på affären.*
I know not who that go-PAST on shop
'I don't know who went to the shop.'

Being so low in the structure, we would expect the motion verb to be able to assign a

secondary theta-role as in the American English "V V" construction. This is however not the case, as observed in section 4.3. Since the property to assign a secondary theta role is certainly something to be specified in the lexicon, we assume that this is a matter of lexical variation and that this idiosyncratic property of the English motion verb is not present in Swedish.

6. Conclusions

In this paper, we have analysed the behaviour of a class of elements, namely motion verbs in the inflected construction, which might seem to provide good candidates for semi-lexical items. We arrived at the conclusion that it is not desirable to assume a third-type category which displays some functional and some lexical properties. There is no empirical generalization as to what subset of properties these should be, and language variation is found in this area.

A promising way of looking at the fact that some lexical categories lack some of their typical lexical properties is to propose that this is due to their merging into a non-lexical (functional) projection. Only less marked verbs have the property of having a functional usage.

In the course of the paper, we have discussed the four generalizations in (92):

(92) a. The inflected construction is possible with the less marked forms of a verbal paradigm.
b. The two verbs in the inflected construction must share inflectional features.
c. The two verbs in the inflected construction refer to a single event.
d. The motion verb immediately precedes the lexical verb which has reached its spell-out position in the derivation.

To account for these generalizations, we have formulated the hypothesis in (93):

(93) The motion verb is merged in the derivation immediately higher than the spell-out position of the lexical verb.

We have proposed that first, the lexical verb (or other functional verbs present in the structure) reaches its spell-out position in the clause, then the connecting element (if present) and successively the motion verb are merged immediately higher than the

spell-out position of the lexical verb. After this operation, the structure building procedure continues regularly as in any other sentence. In this way, we capture the cross-linguistic variation found in the inflected construction in the location of the motion verb.

The discussion so far led us to formulate the parametrized property in (94):

(94) The motion verb loses some but not all its lexical properties. (Language variation is found as to which properties are lost and which are retained.)

We have proposed that (93) and (94) are related. The higher up in the structure the motion verb is merged, the less lexical properties of the motion verb can be realized in the structure.

Being merged in a head higher than the checking domain of the lexical verb, the motion verb cannot check its features in the canonical way (by moving to a designated functional head). We have proposed a copying procedure, which copies the features of the inflected verb onto the motion verb. The copying procedure can account for a wide range of restrictions observed in the inflected construction:

(95) a. the impossibility of the construction in many languages
b. the restriction on tense, mood, and person
c. the occurrence of uninflected forms

The restrictions above can be reduced to the limited capacity of some verbs to check their features parasitically on the lexical verb. We can speculate that only less marked forms (with less features) can do so. Notably, the three languages under consideration either have verbal morphology unmarked for person, as in Swedish and American English, or have special verbal forms with this characteristic, as in Marsalese. In languages which do not have the inflected construction, such as Italian, invariant forms do not exist.

For the sake of the presentation, we have assumed that functional categories share a number of defining properties. But this matter is far from being settled. As a point of fact, functional properties are a bundle of descriptive facts that constitute more of a tendency than a diagnostics. Our approach to motion verbs in the inflected construction may shed some light on the treatment of functional elements as elements deprived of some (or all) of their lexical properties.

cardin@unive.it, giusti@unive.it

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On Greenberg's Universal 20 and the Semitic DP[1]

Guglielmo Cinque
University of Venice

One of the programmatic goals of Kayne's (1994) antisymmetry theory is that of accounting for the many left-right asymmetries found in natural languages. In Cinque (1996), I suggested that in addition to the left-right asymmetries which Kayne discusses, another could be seen to follow elegantly from antisymmetry: that embodied in Greenberg's Universal 20.

After briefly reviewing that proposal, I will examine certain generalizations presented in a recent analysis of Standard Arabic DPs (Fassi Fehri 1998a,b;1999), suggesting that in that language (and Semitic more generally), differently from the received opinion, DPs involve successive internal XP-raisings, rather than N-raising (to D), with consequences also for the proper analysis of the so-called Construct State.[2]

Greenberg's (1966: 87) **Universal 20** reads:

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[1] This text reproduces (with few additions and modifications) the handout of a paper presented at the "Workshop on the Antisymmetry of Syntax", held in Cortona on May 15-17 2000. I wish to thank Abdelkader Fassi Fehri for his judgments and comments on the original handout.

[2] Shlonsky (2000), on the basis of a rich array of Hebrew and dialectal Arabic facts, has arrived at virtually identical conclusions about the syntactic derivation of Semitic DPs, except for the analysis of the Construct State. A similar roll-up derivation is also proposed in Sichel (2000), to derive the inverse order of Adjective Phrases in Hebrew.

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(1) "When any or all of the items (demonstrative, numeral, and descriptive adjective) precede the noun, they are always found in that order. If they follow, the order is either the same or its exact opposite."

In other words, to the left of the N only one ordering is possible (cf.(2)), while to its right both the same ordering, ((3)a), or its mirror-image, ((3)b), are possible:

(2) a. Dem > Num > A > N
b *A > Num > Dem > N

(3) a. N> Dem > Num > A
b. N > A > Num > Dem

How can we make sense of this left-right asymmetry? Capitalizing on the necessary merge of specifiers to the left of a head, due to the LCA, and on the two options open to leftward movements (head-movement and XP-movement), the pattern in (2) and (3) appears to follow if we take the order of the specifiers to be rigidly Dem > Num > A, as shown in (4):

(4) $[_{XP}X\ [_{YP}$**Dem** $[_{YP}Y \ldots [_{WP}$**Num** $[_{WP}W \ldots [_{ZP}$**AdjP** $[_{ZP}Z\ [_{NP}\ N\ ]]]]]]]]]$

If N remains in situ (or moves to a head below the lowest adjective), we have (2)a (Dem > Num > A > N). If N raises as a head to X, we have (3)a (N > Dem > Num > A). If N raises as part of NP, in a "roll-up" fashion, to a Spec,KP in between Num and Adj; then KP raises to a Spec,JP in between Dem and Num; then JP raises to a Spec,XP to the left of Dem, then we get (3)b, the mirror image of the "base generated" sequence (I ignore here the stopping of N or NP in intermediate positions, for which see Cinque 1996).

Given this scenario, if the "roll-up" movement is local and successive, like head-movement (and N-raising to X cannot be followed by "roll-up" movements of the remnant), there is no way of generating (2)b. Fassi Fehri (1998a,b;1999) shows that Standard Arabic (but, apparently, the same, slightly parametrized, holds in the other Semitic languages) conforms to Greenberg's universal, in that it is N A Num Dem (cf. (5)), as well as Dem N A Num (cf. (6)a) and Dem Num N A (cf. (6)b), where

the obligatory post-nominal APs are themselves in an order which is the mirror image of the English/Italian order (cf.(7)):

(5) a. ṣ-ṣuḥuf-u l-jadiidat-u ṭ-ṭalaaṭ-u haaḏihi
(N A Num Dem)
the-**newspapers**-nom the-**new**-nom the-**three**-nom **these**
'These three new newspapers'

b. *ṣ-ṣuḥuf-u haaḏihi ṭ-ṭalaaṭ-u l-jadiidat-u
(*N Dem Num A)
the-**newspapers**-nom **these** the-**three**-nom the-**new**-nom
'These three new newspapers'

(6) a. haaḏihi ṣ-ṣuḥuf-u l-jadiidat-u ṭ-ṭalaaṭ-u
(Dem N A Num)
these the-**newspapers**-nom the-**new**-nom the-**three**-nom
'These three new newspapers'

b. ? haaḏihi ṭ-ṭalaaṭ-u ṣ-ṣuḥuf-i/in l-jadiidat-u
(Dem Num N A)
these the-**three**-nom the-**newspapers**-gen the-**new**-nom
'These three new newspapers'

(7) a. l-hujuum-u l-ʔamiriikiyy-u l-wahšiyy-u l-baliid-u l-muḥtamal-u
the-**attack**-nom the-**American**-nom the-**savage**-nom the-**stupid**-nom the-**probable**-nom
'The probable stupid savage American attack'

b. šaay-un ṣiiniiy-un ʔaxḍar-u jayyid-un ***(N AP_3 AP_2 AP_1)***
tea-nom **Chinese**-nom **green**-nom **excellent**-nom
'An excellent green Chinese tea' ***(AP_1 AP_2 AP_3 N)***

These important observations suggest that the N raises as part of a larger XP, *obligatorily* around the APs, reversing their base order, [3] and *optionally* around the higher specifiers Num and Dem, and the still higher (head) Q (cf. (8)):

(8) a. l-kutub-u l-xaḍra?-u ṯ-ṯalaaṯaṯ-u kull-u-haa
(N A Num Q)
the-**books**-nom the-**green**-nom the-**three**-nom **all**-nom-them
'All the three green books'

b. kull-u l-kutub-i l-xaḍra?-i ṯ-ṯalaaṯaṯ-i
(Q N A Num)
all-nom-them the-**books**-gen the-**green**-gen the-**three**-gen
'All the three green books'

If there is a Construct State genitive, it is right adjacent to the N and precedes the APs (which are in the usual mirror-image order):

(9) a. hujuum-u l-ḥukuumat-i l-wahšiyy-u l-baliid-u l-muḥtamal-u
attack-nom the-**government**-gen the-**savage**-nom the-**stupid**-nom the-**probable**- nom
'The government's probable stupid savage attack'

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[3]. But in Maltese APs can apparently also be prenominal (if preceded by a determiner). Cf. Fabri (1993,54), cited in Duffield (1995,302):

(i) a. is-sabiha omm Pawlu
the-beautiful mother Paul 'Paul's beautiful mother'
b. ix-xih missier Karla
the-old father Karla 'Karla's old father'

b. kutub-u l-'aqqad-i l-xaḍra?-u ṯ-ṯalaaṯat-u kull-u-haa
books-nom al-**Aqqad**-gen the-**green**-nom the-**three**-nom **all**-nom-them
'All of al-Aqqad's three green books'

Fassi Fehri, adopting the standard N-raising to D analysis, assumes, in addition to N-movement, a separate movement of the possessor and separate movements of the APs (the latter motivated by the need to reverse their order). But his findings follow in a simple and unified fashion from successive leftward movements of larger and larger XPs: first of the (remnant) NP around the genitive possessor (yielding the Construct State); then, of the larger phrase containing the Construct State around the next higher specifier, and so on. The otherwise curious conspiracy of three different types of movements can be dispensed with.

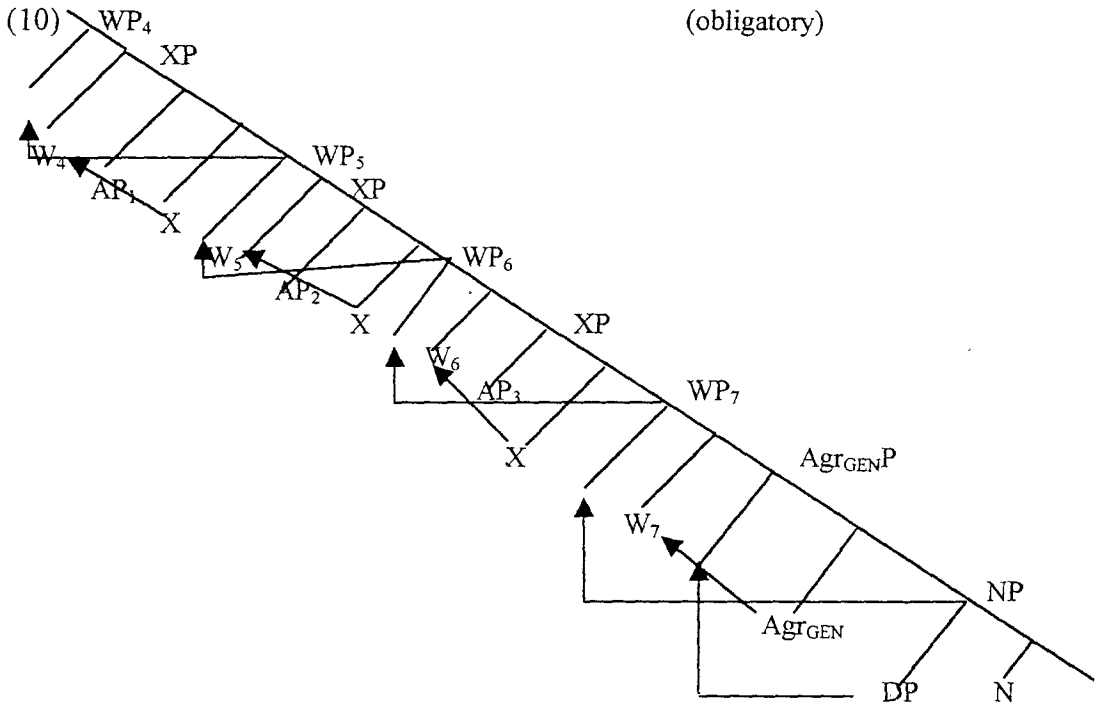
Let's consider how.

Following Siloni (1994, chapter 2), I take the argument DP to raise to the Spec of an immediately dominating $Agr_{GEN}P$, where it is assigned (structural) Genitive (cf. also Fassi Fehri 1993,220). In line with Kayne (2000), I assume Agr_{GEN} raises to a head W, thereby activating Spec,WP, which attracts the remnant NP (the complement of the raised Agr_{GEN} head). This is the core of the Construct State: $[_{WP}$ $[_{NP}$ N] Agr_{GEN}+W $[_{AgrGENP}$ DP t t]].

The analogous raising of the next head, X, to W_6 activates Spec,WP_6, which attracts the complement of the raised head X, WP_7, yielding the order N DP_{GEN} AP_3. The subsequent head-raising to WP_5, and attraction of WP_6 to Spec,WP_5 yields the order N DP_{GEN} AP_3 AP_2.

Finally, the entirely similar head-raising to WP_4, and attraction of WP_5 to Spec,WP_4 yields the order N DP_{GEN} AP_3 AP_2 AP_1, which is the exact mirror-image of the base order.

The derivation is shown in (10):

(10) 

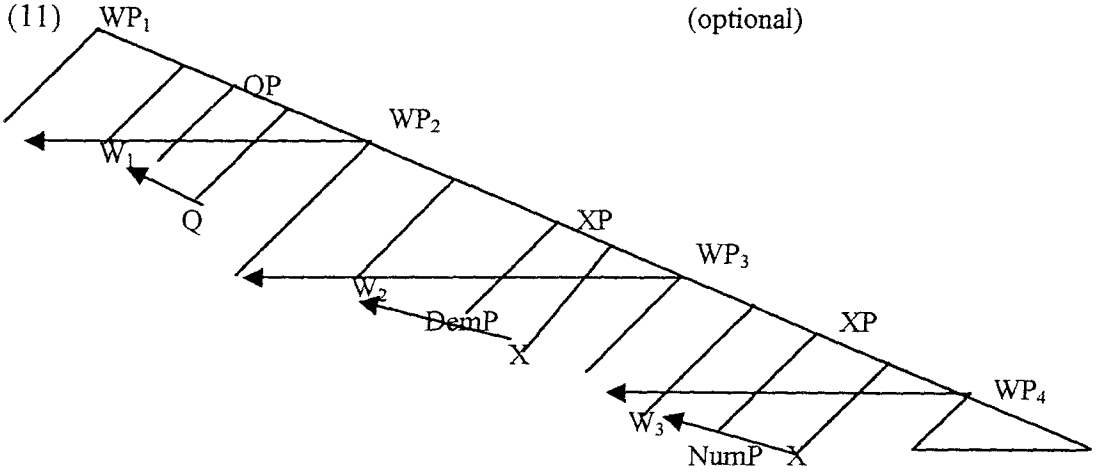
(obligatory)

Above the projections hosting the APs, head-raising and attraction to Spec of WP are apparently optional:[4]

---

[4]. When a Construct State Genitive is also present, demonstratives cannot be prenominal in Modern Standard Arabic (Fassi Fehri 1998a,30). They can, however, in Maltese (Fabri 1996,233), where APs can also precede the Construct State (cf. fn.2):

(i) Dik oht Pawlu
That (fsg) sister Paul 'that sister of Paul's'

(11) 

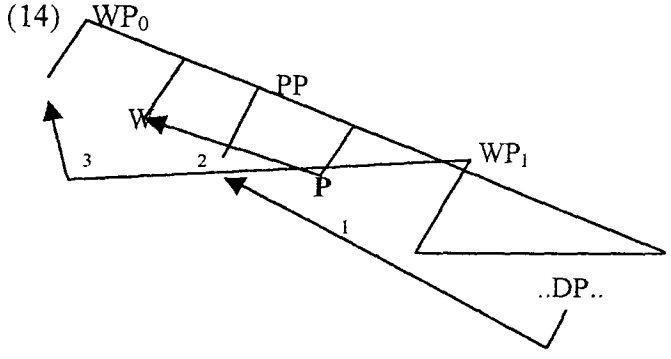
Depending on whether just WP_4 raises to Spec,WP_3, or WP_4 to Spec,WP_3, WP_3 to Spec WP_2, etc., one gets the different possibilities of (12), all attested in Standard Arabic (cf. again Fassi Fehri 1998a,b, 1999):

(12) a. Q Dem Num **N** A_3 A_2 A_1
b. Q Dem **N** A_3 A_2 A_1 Num
c. Q **N** A_3 A_2 A_1 Num Dem
d. **N** A_3 A_2 A_1 Num Dem Q

As prepositional complements, when present, are DP-final (cf. (13)), I will assume, following Kayne (2000), that the preposition is generated above the containing DP, attracts to its Spec its complement DP, and raises to W, W attracting the remnant to its Spec. Cf. (14):

(13) muḥaarabat-u l-ḥukuumat-i l-muntaḍarat-u li-l-irtišaa?-i
fighting-nom the-government-gen the-expected-nom of-the-corruption
'The expected fighting of the corruption by the government'

(14)



This analysis calls into question the traditional analysis of the Construct State as N-raising-to-D (cf. Ritter 1987, and subsequent works) as it reanalyses it as local (remnant) NP movement to Spec, AGRgen+W (followed by possible further roll-up movements).[5]

Independent evidence that XP-raising rather than N-raising to the left of the genitive DP is involved in the Construct State in Arabic comes from the possibility of coordinating two head-nouns. See (15):

(15) taṭwiir-u wa taḥdiṯ-u l-luġat-i d-daa?im-aa-ni
development-nom and modernization-nom the-language-gen the-constant-dual-nom
'The constant development and modernization of the language'

If no coordination of X°s is possible, but only of XPs (Kayne 1994, 59ff), (15) indicates that the apparent head-noun of the Construct State is actually (at least) a NP (the marking of dual number on the adjective rules out the possibility that (15) involves the coordination of one elliptical and one full Construct State DP, each containing a single head-noun).[6]

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[5]. The examples in fn.2, with their D-AP N DP_{GEN} order, exclude (at least for Maltese) that N raises to D (and, in our reinterpretation of the Construct State, that the Construct State phrase raises to (or above) Spec,DP.

[6]. Another indication that the constituent preceding the Construct State Genitive is larger than a N comes from Bohas and Al-Qaadirii's (1998) observation (reported in Kihm 1999; Benmamoun

The XP-raising analysis of the Semitic DP just sketched derives naturally many of the characteristic properties of Construct States. See the Appendix.

This analysis, if correct, calls into question N-to-D raising not only for Semitic, but also for Celtic and Romance, as successive raisings of the remnant NP from Spec,WP to Spec ,WP (with no pied piping of the containing WP) could be involved, giving the illusion of N-raising.

The general pattern of the Celtic DP is the one given in (16) (cf. Rouveret 1994, chapter 3; Duffield 1995, chapter 5):

(16) Q NUM A_1 **N** A_2 A_3 GEN/DEM (P DP)

As opposed to Semitic, in the Irish Construct State the head-noun can (in fact, must – Duffield 1995,290) be separated from the Genitive DP by the lower APs, if present.[7]

This suggests that the (remnant) NP, after being attracted to the Spec of AGRgen+W (as in Semitic), continues alone from Spec to Spec, without pied piping WP (obligatorily to the Spec of a W above the lower APs). This is supported by the fact that the serialization of the APs corresponds to the direct one of English, not to the inverse one of Semitic (Sproat and Shih 1991, 586f; Duffield 1995, 295ff).[8]

2000,165f) that what look like adjuncts to the head N can intervene between it and the genitive when the head N is a deverbal noun (this marked construction is however not accepted by everybody – Fassi Fehri p.c.):

(i) tarku yawman nafsi-ka...
leaving one day self-your 'Leaving yourself...'

7. Cf. (i)a vs. (i)b ((35a-b) of Duffield 1995,290):

(i) a. guth laidir an tsagairt
voice strong the priest-GEN 'the priest's powerful voice'
b. *guth an tsagairt laidir
voice the priest-GEN strong 'the priest's powerful voice'

8. Cf., for example:

The same situation holds in Welsh (Rouveret 1994, 209ff.).[9]

Romance, which conforms to the minimally different pattern of (17) (cf. Cinque 1994), can be taken to differ from Celtic in not having an active AGR_{GEN} licensing a structural Genitive DP, thus requiring the insertion of a Preposition above the DP to license the subject DP (Central and Eastern Romance also differ from Celtic in not allowing a demonstrative to remain in the low "deictic" demonstrative position immediately above the NP – cf. Brugè 1996, Brugè and Giusti 1996):[10]

(17) Q DEM NUM A_1 <**N**> A_2 <**N**>A_3 P DP

As a matter of fact, Romanian, among the Romance languages, provides independent evidence for XP-raising (to Spec,DP) rather than N-raising (to D). The first piece of evidence comes from the possibility of such cases as (18)a, where an entire phrase (an AP) is found to the left of the determiner; the second from coordination facts entirely parallel to the Semitic fact noted above (cf. (18)b, and especially (18)c,d, provided by Giuliana Giusti and Carmen Dobrovie Sorin)[11]:

(i) a. cupan mor Sasanach (*Irish* – Sproat and Shih 1991,587)
cup big English 'a big English cup'

b. an seanchapall mor bui (*Irish* – Duffield 1995,296)
the oldhorse big yellow 'the big yellow horse'

9. (i) cwpan mawr gwyrdd Sieineaidd (*Welsh* – Rouveret 1994,213)
cup big green chinese 'a big green chinese cup'

10. The main parametric difference between Celtic/Romance and Semitic appears then to be whether the content of Spec,WP raises alone or pied-pipes WP (which recalls Koopman and Szabolcsi's 1998 derivation of "inverted" and "English" orders of restructuring verbs in Hungarian).

11. The fact that when two Ns (cf.(18)b), or two adjectives (cf. (i) below), are coordinated both carry the definite article indicates that the article is a definiteness marker formed in the lexicon rather than picked up in the syntax (if that were the case it should appear only on the second of the two coordinated elements – but that is not the case):

(18) a. Foarte frumos**ul** portret
very beautiful-the painting 'the very beautiful painting'
b. So**ţul** şi so**ţia** precauti nu fac mai mult de un copil
husband-the (sing) and wife-the (sing) careful (pl) not make more than a child
c. Director**ul** şi presedinte**le** nou
The new(sing) director and president (one individual)
d. Director**ul** şi presedinte**le** noi
The new(pl) director and president (two individuals)

APPENDIX: *THE MAIN PROPERTIES OF THE CONSTRUCT STATE* (cf. Fassi Fehri 1993, Borer 1999, Shlonsky 2000) *AND THEIR RELATION TO THE ABOVE ANALYSIS*

1) Inseparability of the "head noun" + genitive DP (e.g., no adjective can intervene between them)

a) (daxal-tu) daar-a r-rajul-i l-waasi'at-a
(entered-I) house-acc the-man-gen the-large-acc
'(I entered) the man's large house'

b) *...daar-a **l-waasi'at-a** r-rajul-i
...house-acc the-large-acc the-man-gen
'...the man's large house'

(i) Frumos**ul** si mare**le** portret al lui Ion
Beautiful-the and big-the painting of I. 'Ion's beautiful and big painting'

The strict adjacency follows from attraction of the genitive DP to Spec,AGR_{GEN}, raising of AGR_{GEN} to W, and attraction of the remnant NP to Spec,WP (cf. (10)).

2) Adjectival modification of the "head noun" follows the rightmost genitive DP (and it may modify any of the nouns if featurally non-distinct)

(Hebrew) *delet beit morat ha-kite ha-yafa* (Borer 1999, 45)
door-f house-m teacher-f the-class-f the-beautiful-f
a) 'the door of the house of the teacher of the beautiful class'
b) 'the door of the house of the beautiful teacher of the class'
c) 'the beautiful door of the house of the teacher of the class'

This follows from the fact that the AP can be internal to the DP headed by *kite*, or that headed by *morat*, or that headed by *delet* (though not the one headed by *beit*, which is featurally distinct), and the fact that in either case it ends up in final position by being crossed over by the NPs *kite, morat ha-kite, delet beit morat ha-kite*, respectively.

3) If more than one noun is modified by an adjective, the configuration is nested: N_1 N_2 A_2 A_1

This also follows directly from the 'base-structure' $[_{DP1}$ AP_1 $[_{DP2}$ AP_2 $[_{NP2}$ $N_2]]$ $[_{NP1}$ $N_1]]$ by NP_2 crossing over AP_2 ($[_{DP1}$ AP_1 $[_{DP2}$ $[_{NP2}$ $N_2]$ AP_2 t] $[_{NP1}$ $N_1]]$, NP_1 crossing over the genitive DP_2 to Spec,WP ($[_{DP1}$ AP_1 $[_{NP1}$ $N_1]$ $[_{DP2}$ $[_{NP2}$ $N_2]$ AP_2 t] t]), and WP crossing over AP_1, to yield: $[_{DP1}$ $[_{NP1}$ $N_1]$ $[_{DP2}$ $[_{NP2}$ $N_2]$ AP_2 t] t AP_1 t].

4) "(In)definitness spreading" (the definiteness value of the head depends on that of the genitive)

a) daar-a r-rajul-i l-waasi'at-a
house-acc the-man-gen the-large-acc
'**the**/*a large house of **the** man'

b) daar-a rajul-i-n waasi'at-an
house-acc man-gen large-acc
'**a**/*the large house of **a** man'

This property may follow from feature sharing. The (in)definiteness feature of the DP in Spec,AGR_{GEN} is shared under Spec/head agreement with AGR_{GEN}. When AGR_{GEN} raises to W, it enters another Spec/head agreement relation with Spec,WP (hence can transmit its (in)definiteness feature to the remnant NP raised to Spec,WP).

5) The "head noun" cannot be directly modified by a determiner

(daxal-tu) (***d-**)daar-a r-rajul-i l-waasi'at-a
(entered-I) (the-)house-acc the-man-gen the-large-acc
'(I entered) the man's large house'

This property may be related to the preceding. If the (in)definiteness feature is already visible through Spec/head agreement with the (in)definiteness feature of the genitive, it need not (hence, by economy, cannot) be realized. This is more natural if the definite article in Semitic

is "a base-generated feature on the head N", as proposed in Borer (1989). For a prosodic approach to the question, see Siloni (2000, sect.4).

6) The non prepositional nature of the genitive

As opposed to the so-called Free State, the Construct State genitive is not introduced by a preposition (Arabic *li-*, etc., Hebrew *šel*). This follows from the "structural" nature of the genitive assigned in Spec,AGR_{GEN}P. The "structural" nature of the genitive in the Construct State is shown by its occurrence in ECM contexts:

(i) ḍann-u r-rajul-i ḍakiyy-an xata?-un
(*Arabic*, Fassi Fehri 1993, 220)
believing-nom the-man-gen clever-acc error-nom
(Literally: the man's believing clever (is) an error)
'Believing that the man is clever is an error'

(ii) meci'at ha-ne'ešam 'ašem vs. *ha-meci'a šel ha-ne'ešam 'ašem
(*Hebrew*, Siloni 1997, 41)
finding the-accused guilty the-finding of the-accused guilty

7) The obligatoriness of the genitive (more clearly visible in Hebrew)

V. (Hebrew) Beit *(more) ('a house (of a teacher)') vs Bayit (šel mora) ('a house (of a teacher)'). This follows from the fact that the Construct State is dependent on the presence of AGR_{GEN}, which attracts the remnant NP to its Spec (assigning to it structural Genitive Case).

8) The "head noun" cannot bear main stress (in Hebrew it may have a phonetic shape different from that of the Free State)

Following Siloni (1997,43), "[t]his may be conceived as some phonetic reflex of the presence of AGR_{GEN} features on the noun" (to be checked in Spec,AGR_{GEN}P). For more recent discusssion of the prosodic nature of Case checking, see Siloni (2000).

9) A thematic restriction (Borer 1996, 41; Siloni 1994, 1997, 96ff; Shlonsky 2000, sect.8)

When more than one genitive argument is present (one representing the theme, the other the agent or the possessor) the genitive member of the Construct must be the theme (examples from Shlonsky 2000):

a) tmunat ha xamanyot šel vangox
picture the sunflowers of Van Gogh

b) *tmunat vangox šel xamanyot
picture Van Gogh of the flowers

If the theme is not genitive, the genitive member of the Construct can be an agent or a possessor (examples from Siloni 2000):

c) mixtavey ha xayal le-imo
letters the-soldier to-mother-his

d) harisat ha-cava et ha-ir
destruction the army *acc* the-city

If only one genitive can be assigned within a DP (cf. Cinque 1995), then the second genitive must be assigned within a reduced relative clause. When both a theme and an agent (or a possessor) are present, only the latter can be generated in a reduced relative clause, as themes (complements more generally) cannot (cf. *A student which is of physics; *A letter which is to his mother).[12]

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[12]. At first sight, no such restriction holds in Arabic. See (i) from Fassi Fehri (1993,249):

(i) Saahad-tu suurat-a zayd-in li-hind-in
saw-I picture-acc Zayd-gen of-Hind-gen 'I saw Zayd's picture of Hind'

But in this language the preposition introducing the second genitive is non-distinct from Dative (cf. (ii), from Fassi Fehri 1993,248). (i) thus instantiates the same case as Hebrew c) above:

(ii) baa a li-r-rajul-i kitaab-an
sold-3.s.m to-the-man book-acc 'He sold a book to the man'

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Imperfect Dreams: The temporal dependencies of fictional predicates*

Alessandra Giorgi and Fabio Pianesi
University of Venice - ITC Irst Trento

Introduction

In this paper we will discuss the properties of the fictional context created by the verb *dream*, focusing on Italian data. These contexts are interesting for at least two reasons: on the one hand, they exhibit a very consistent behaviour across Romance languages with respect to mood selection, in that they always select the indicative in their complement clause, rejecting the subjunctive.[1] On the other hand, when containing a subordinate imperfect tense, *dream* reports have the property that the dreamed eventuality need not be temporally anchored. Therefore, in example (1) the content of Mario's dream is not temporally connected with the matrix eventuality (the dream) or with the utterance.

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*. The two authors have elaborated every part of this work together. However, as far as legal requirements are concerned A. Giorgi takes official responsibility for the introduction, §1 and §2.1; F. Pianesi for §2.2, §3 and the conclusion.

1. An anonymous reviewer points out that the same contrast is found in Greek.

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(1) Mario ha sognato che Carlo vinceva al totocalcio.
Mario dreamed that Carlo won(IMPF) the lottery.

(2) Mario ha sognato che Carlo ha vinto/vinse/vincerà al totocalcio.
Mario dreamed that Carlo ha won/ won(SP)/will win the lottery.

When other tenses of the indicative are used in the same context — as in (2) — the event of the subordinate clause *is* anchored, showing the typical pattern of double access reading (henceforth DAR).[2] Thus, in (2) the winning is in the past and in the future, respectively, both with respect to the matrix event and to the utterance. Moreover, (2) differs from (1) also because it has a peculiar evidential meaning, for which reason we will refer to cases such as (2) as *evidential dream*.[3] Borrowing a term from Enç (1987), we refer to the conditions ruling the temporal connections between the embedded eventuality and the matrix one, as *anchoring conditions*.

These facts mark a basic difference between dream contexts and propositional attitudes, since the latter always require anchoring conditions to be satisfied by the embedded predicate. On the interpretive side, this suggests that there is a close link between propositional attitudes and the temporal anchoring requirement, to the effect that the former are available only insofar the latter is.[4] The analysis of dream

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2. On double access readings see Ogihara (1993), Abusch (1997) and Giorgi & Pianesi (1999a). Cf. also Higginbotham's talk delivered at Going Romance, 1998, Utrecht.

3. We are not going to consider here the aspectual properties of the imperfect that are not central to the purpose of the present discussion—as will become clear below—but only its ability to enter temporal and/or modal constructions. Therefore the discussion concerning aspect and related properties which can be found in the literature, will not be considered in this work.

4. The term "propositional attitude" can be defined as applying to predicates for which the truth of the embedded proposition is relevant, this way including predicates such as *believe* and *think*, and also *say*. This would exclude *dream* under the interpretation in (1). See below for further discussion.

contexts will highlight how interpretive requirements and the morphosyntactic properties of tenses interact to determine the temporal interpretation.[5]

This paper is organised as follows. In § 1 we will review the basic facts concerning SOT and temporal interpretation in Italian and English, focusing first on the distribution of the imperfect tense in Italian, then extending the analysis to English. In § 2, dream contexts are studied, starting from the properties of non-anchored complements, then turning to evidential dreams — i.e., the anchored ones. In § 3 we propose a theoretical account within the framework developed in Giorgi & Pianesi (1997; 1999a; 1999b). Finally in § 4 we draw some conclusions.

1. The interpretation of past tenses in Italian and English

1.1. The distribution of the imperfect in Italian main clauses

In this section we consider the distribution of the Italian indicative imperfect as it appears in matrix contexts. We mainly focus on the properties of this tense that will be relevant for the discussion of dream contexts — in particular, the possibility of obtaining both temporal and non-temporal readings.[6] Let us start from temporal readings:

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5. Generally speaking, *fictional* contexts are a challenge to current views about the morphosyntax and semantics of tense. For instance, in the so-called *contensive individuals* studied by Katz (1995) a verbal form such as the present tense does not seem to provide a real temporal meaning:

(i) In Moby Dick, Achab kills the white whale with a harpoon.

Example (i) contrasts with ordinary present tense sentences also because in non-narrative contexts an English sentence such as (i) would only have a habitual meaning. We are not going to pursue the general topic of fictional contexts here, even if we believe that some of our conclusions could be relevant for the more general case.

6. For a more complete analysis, see Giorgi & Pianesi (1995; 1997, ch. 4; 1999b).

(3) #Mario mangiava una mela.
Mario ate(IMPF) an apple.

(4) *Alle tre* Mario mangiava una mela.
At three Mario ate(IMPF) an apple.

(5) *Quando Gianni è uscito*, Maria guardava la TV
When Gianni left, M. was watching(IMPF) TV

(6) **Quando Gianni uscirà*, Maria guardava la TV
When Gianni will leave, Maria was watching(IMPF) TV

As signalled by the diacritic, example (3) is odd if uttered out-of-the-blue, showing that the imperfect is *anaphoric* — namely, it requires the context to make a temporal reference available, as in (4) and (5).[7] The ungrammaticality of (6) shows that in these cases the imperfect is a *past* tense.

An interesting feature of the Italian imperfect, which distinguishes it from tenses such as the Italian simple past (*passato remoto*) or the present perfect, is the possibility for it to cooccur with future-oriented temporal phrases:[8]

(7) a. Mario partiva domani.
Mario left(IMPF) tomorrow.

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7. The temporal reference can also be provided by the extra-sentential context:

(i) Hai incontrato Gianni ieri mattina?
Did you meet(IMPF) Gianni yesterday morning?
Sì. Correva nel parco.
Yes. he ran(IMPF) in the park.

For a discussion of these properties of the imperfect, see also Delfitto & Bertinetto (1995).

8. An anonymous reviewer points out that the same reading obtains in Greek, when the particle *tha* introduces an imperfective form of the verb, giving rise to an epistemic reading. This point is rather interesting and deserves further attention.

b. *Mario è partito/ partì domani.
Mario has left/ left tomorrow.

As shown by the contrast between (7a) and (7b), the temporal phrase *domani* (tomorrow) can be used to fix the time of the event when the tense is the imperfect. The same temporal phrase, on the other hand, yields ungrammatical results with a simple past or a present perfect.

Example (7a) is not a simple assertion concerning an event occurring in the future. It has a special *modal* meaning, the closest paraphrase being:

(8) Mario had the intention/was committed to leave tomorrow.

The paraphrase shows that the modality must be represented at some level in the sentence, and we suggest that it is realised as a modal projection, headed by an empty head. Moreover, (8) also shows that the temporal value of the imperfect specifies the modality itself — i.e., it is the *intention/commitment* to leave that is understood as being past.[9]

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9. Even if, as the paraphrases again makes clear, the intention might be taken to persist up to *now*. This is a property shared by all sentences with the imperfect tense. They can be described, in fact, as focusing on events or states obtaining at a past time, without implying that such eventualities came to an end afterwards. This leaves open the possibility for them to persist at the utterance time.

The interactions between the imperfect and temporal phrases are actually more complex than described in the text. Roughly speaking, a sentence containing an imperfect predicate can have three readings. The first reading concerns the presentation of an event as *ongoing* at a certain past time. In the second reading, which we just discussed in the text, the temporal value of the imperfect affects a hidden *modal* node. In this case, the time of the event is specified only by a temporal adverbial:

(i) a. Ieri alle tre Mario mangiava. (ONGOING)
Yesterday at three Mario ate(IMPF).

b. Mario mangiava ieri alle tre. (*ONGOING; MOD)
Mario ate(IMPF) yesterday at three.

Example (7a) is important because it shows that the imperfect, contrary to the other tenses of the indicative (and contrary to subjunctive forms too) can specify the temporal properties of something else than the event. That is, the imperfect can either contribute to the temporal interpretation of the event, as in (3)-(6), or to the

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Both the ongoing and the modal cases result in semelfactive readings, concerning a single (modulo quantification) event. As can be seen from (ia), a sentence initial specific temporal phrase is compatible with an ongoing reading. When the temporal phrase is in sentence final position, on the other hand, the ongoing reading is not available, and the modal one is forced.

Example (ib) has a reading very close to the modal one discussed in the text, and, as in (7a), the temporal value of the imperfect constrains the modality. Therefore it is paraphraseable as '(at a certain past time) Mario had the intention to eat yesterday at three'. This shows that the modal reading is closely related to the presence of a sentence final temporal phrase.

The third reading available with the imperfect tense is the habitual one, exemplified by sentences containing non-specific (predicative) temporal adverbials:

(ii) a. Alle tre Mario mangiava. (HAB)
At three Mario ate(IMPF).

b. Mario mangiava alle tre. (HAB)
Mario ate(IMPF) at three

Habitual readings do not seem to be affected by the different positions of the temporal phrase in the same way as the other readings are — though differences between the two sentences in (ii) can be detected which, however, do not affect the point we are making. Cf. Delfitto & Bertinetto (1999) for more on this point. Notice finally that the *ongoing* reading of the imperfect cannot be identified with a real progressive, as discussed in Giorgi and Pianesi (1997 and Bonomi (1998) etc. As pointed out in fn3, the aspectual questions are not relevant here, because we are going to focus on the presence or absence of *temporal* readings, irrespectively of the aspect of the imperfect, the latter being an orthogonal question, as far as we know.

(temporal) interpretation of a modal node.[10] This is not so with the present perfect or the Italian simple past which always specify the event.[11]

Finally, note that without the presence of a (null) modal (7a) would be as ungrammatical as (7b), and for the same reasons — namely, mismatching requirements from the tense and the temporal adverbial.[12]

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10. In the light of the account to be developed in § 3, the statement in the text is inaccurate. Indeed it will be argued that the imperfect never directly constraints the event — at least not in the same way as non-imperfect indicative tenses do.

11. The realisation of *null* modal projections — i.e., without the presence of a lexical modal — is subject to language-specific constraints. In particular, such a possibility is not available in English, as can be readily seen:

(i) *John left tomorrow.

12. The following example is similar to (7a):

(i) Stasera cantava Pavarotti.
Tonight sang(IMPF) Pavarotti.

As in (7a) the event is temporally located only by the temporal phrase. However, differently from (7a), the temporal contribution of the imperfect does not constrain a hidden temporal projection. That is, (i) cannot be paraphrased as 'Pavarotti had (the intention) to sing this night'. Example (i) can only be used in special circumstances. Thus, suppose that your boss tells you that an important meeting has been fixed for seven o'clock p.m., to finalise an important and difficult contract. Upon being so told, you might reply by uttering (i). The hearer would then understand that you *had* some plan concerning the forthcoming concert — possibly, to attend to it. Had you uttered, in the same situation (ii), the hearer would have understood that you currently *have* some plan concerning the concert:

(ii) Stasera canta Pavarotti.
Tonight sings Pavarotti.

The contrast between the use of the imperfect and the present tense shows that the former, in the given situation, conventionally implicates that (having been summoned by your boss) you've given

In the examples considered so far, the imperfect always contributes a past temporal value. There are cases, however, in which the imperfect doesn't seem to do so:

(9) a. Facciamo che io ero il re e tu la regina.
Let's pretend that I am(IMPF) the king and you the queen

b. A questo punto Mario usciva e tu lo seguivi.
At this point Mario left(IMPF) and you followed(IMPF) him.

(9a) is a case of *imperfâit preludique* (Vet, 1983), and is typically used by children while planning a new game. Similarly, (9b) can be used by a director as stage instructions to the actors. In these cases, the imperfect tense does not have any *temporal* value, in the sense that it does not contribute to locate the eventuality with respect to the utterance time, or any other temporal anchor. If the simple past or the present perfect are used in the same contexts, we obtain radically different results, as in the case of (10) which are not available in the relevant contexts:

(10) a. Facciamo che io sono stato/ fui il re e tu la regina.
Let's pretend that I was(PRES PERF) the king and you the queen.

b. *A questo punto Mario uscì e tu lo seguisti.
At this point Mario left(SP) and you followed(SP) him.

The examples in (9) are also close to the uses of the imperfect in *narrative* contexts — e.g., story-telling, fictions, etc. — where it is the typical (continuous) tense, despite the fact that the relevant events are not anchored:

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up your original plan. By using the latter, on the other hand, the speaker conventionally implicates that he/she is still in doubt as to whether adhere to the boss' summoning, or ignore it and attend the concert.

Thus, even in the case of (i), the temporal value of the imperfect is expressed. It does not so with respect to the event, nor with respect to a hidden modal projection, as in (7a). It triggers, rather, a conventional implicature.

(11) Il ladro passeggiava nervosamente. Qualcosa era andato storto...
The thief walked(IMPF) nervously. Something went wrong...

Example (11) could be the beginning of a novel. Clearly, the events of the two sentences are by no means anchored—more precisely, they need not be interpreted as past with respect to the utterance time.

To summarise, in matrix contexts we can distinguish between temporal uses of the imperfect, exemplified by (3) through (7), and apparently non-temporal uses of the same tense, the choice being dependent on the illocutionary force with which the sentence is used: temporal values are delivered in normal declarative/ assertive context, whereas they are absent in narrative ones. Finally, let us stress that the relevant notion of *temporal value* for a tense is the one which establishes a relation between the event/eventuality of the main predicate and a given temporal *anchor* (see below) — that is, a value that satisfies the anchoring conditions.

1.2. The imperfect tense in complement clauses

Let us turn now to embedded contexts:

(12) Mario mi ha detto che Gianni mangiava una mela. (SIMUL)
Mario told me that Gianni ate(IMPF) an apple.

(13) Mario mi ha detto *questa mattina* che *ieri* Gianni mangiava una mela.
(SHIFTED)
Mario told me this morning that yesterday Gianni ate(IMPF) an apple

(14) #Gianni dice che Maria mangiava una mela
G. says that M. ate(IMPF) an apple

(15) Gianni dice che *ieri alle 5* Maria mangiava una mela
Gianni says that yesterday at five Maria was eating an apple

When embedded under a verb of *saying*, the imperfect exhibits the same cluster of properties observed above. In (12) it can be interpreted as simultaneous with the matrix predicate, or as past with respect to it if an appropriate time reference is provided in the embedded clause — cf. (13). Analogously to (3), (14) is odd, because of the lack of an appropriate temporal reference, given that the

superordinate predicate appears in the present tense. As in matrix contexts, the sentence can be rescued by introducing a suitable temporal reference — cf. (15).

As argued in Giorgi & Pianesi (1997), in past-under-past contexts, simultaneous readings are limited to sentences with an imperfect in their subordinate clause. As soon as the embedded predicate appears with a different past tense, in fact, simultaneity is excluded:

(16) Gianni ha detto che Mario ha mangiato/ mangiò un panino.
(*SIMUL; SHIFTED)
Gianni said that Mario has eaten/ ate a sandwich

We will not reproduce here the theoretical analysis of these data, and refer the reader to the cited references. This observation, however, will prove important in the analysis of fictional predicates.

The modal readings discussed in §1.1 arise in embedded contexts too:

(17) Gianni ha detto che Mario partiva domani. (MOD)
Gianni said that Mario left(IMPF) tomorrow.

As in (7a), the content of the subordinate clause can be paraphrased as "Mario had the intention to leave tomorrow" or "Gianni's leaving was scheduled for tomorrow".

These observations show that, as far as the temporal readings are concerned, the Italian imperfect tense displays the same behaviour both in matrix and in subordinated clauses. We haven't discussed yet a-temporal uses of the imperfect in complement clauses, a topic we will return to in §2.1 while discussing the contexts created by the verb *sognare* (dream).

Let us consider now the interactions between the aspectual properties of achievement predicates and the imperfective verbal form.[13] There is a wide agreement in the literature that achievements predicates are *inherently telic*, being often described as referring to a pure *telos* and/or as being *punctual*. Given the descriptive and formal dependencies of telicity upon terminativity — cf. Giorgi & Pianesi (1999b)— the fact that achievements are lexically telic entails that they are

13. Cf. also Giorgi & Pianesi (1999b; 1997 ch. 4).

also lexically terminative. Now, the imperfect tense can be used with these predicates, resulting in continuous imperfective verbal forms. That is, verbal forms which both refer to culminated (telic) events, and present them as ongoing. Consider the following examples:

(18) a. Mentre Gianni raggiungeva la vetta, sua madre pregava.
While Gianni reached(IMPF) the top, his mother prayed(IMPF).

b. *Mentre Gianni raggiungeva la vetta, un fulmine lo colpì (e lui non arrivò mai in cima).
While Gianni reached(IMPF) the top, a bolt stroke him (and he never arrived to the top).

c. Mentre Gianni stava raggiungendo la vetta, un fulmine lo colpì e lui non arrivò mai in cima
While Gianni was reaching(PROG) the top, a bolt stroke him (and he never arrived to the top).

The grammaticality of (18a) exemplifies the *aspectual neutrality* of the imperfect (Giorgi and Pianesi 1997; 1999b): such a verbal form is available with a lexically telic (perfective) predicate such as *reach the top*. The telicity of these constructions is showed by the contrast between (18b) and (18c). The oddness of (18b) is due to the fact that the aspectually neutral imperfect tense maintains the basic aspectual value of the verb — that is, telic/terminative. The first part of the sentence, in fact, entails that the culmination (being at the top) has been reached, whereas the second part, explicitly challenges such a conclusion, hence the oddness. Example (18c), on the other hand, shows that if some other means — namely, the progressive form — suspends telicity/perfectivity, the whole sentence becomes acceptable.[14]

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14. The aspectual neutrality of the imperfect refers to the fact that such a verbal form does not, by itself, entail that the described eventuality is terminated. This property, discussed at length in Giorgi and Pianesi (1997; 1999b) is one of the properties distinguishing the imperfect from such perfective verbal forms as the Italian simple past (*passato remoto*) and the Italian present perfect. Given this, the terminativity of (18b) must be due to the actional properties of the achievement predicate. Indeed, the results in (18b) cannot be duplicated with, say, accomplishments:

(i) Mentre Gianni mangiava la mela, il telefono squillò (e lui non finì di mangiarla).
While Gianni ate(IMPF) the apple, the telephone rang (and he didn't finish to eat it).

Another relevant property of achievement predicates is the fact that they are never interpreted as simultaneous with the temporal anchor. Thus, when appearing in the present tense in a matrix context, they give rise to ungrammatical sentences—that is, the matrix event cannot be simultaneous with the temporal anchor, which in this case is the utterance event[15]

(19) #Mario raggiunge la vetta/ trova un libro.
Mario reaches the top/ finds a book.

Similarly, in subordinate clauses, an imperfect achievement predicate doesn't give rise to simultaneous readings, contrasting with accomplishments and activities, cf. (20a) and (12):

(20) a. #Gianni ha detto che Mario raggiungeva la vetta (*SIMUL)
Gianni said that Mario reached(IMPF) the top
b. Gianni ha detto che Mario ha raggiunto/ raggiunse la vetta.
(*SIMUL; SHIFTED)
Gianni said that Mario has reached/ reached the top

Concerning the role of the progressive and its interactions with perfectivity, see Giorgi & Pianesi (1997, ch. 4). Also, it should be noticed that the contrast between (18b) and (18c) clearly shows that attempts at assimilating continuous imperfective readings to progressive ones are descriptively inadequate.

15. Here, as in other cases, we are abstracting away from habitual readings. Example (19), in fact, is acceptable if habituality is forced:

(i) Cosa succede ogni giorno alle tre?
What happens every day at five?
Mario trova un libro.
Mario finds a book.

These facts can be shown to follow from our proposal, though this is not the place to pursue such developments.

Example (20b) shows that with achievement predicates the imperfect tense patterns together with the simple past, and the present perfect — two morphologically perfective verbal forms — in excluding the simultaneous interpretation. This provides further support to the hypothesis concerning the inherent telicity/terminativity of achievement predicate. As we discussed in previous work (Giorgi & Pianesi 1997), in fact, there is a general interpretive constraint (the so-called *punctuality constraint*) preventing events introduced by perfective predicates from being simultaneous with the temporal anchor. Such a constraint accounts for the well-known impossibility of English eventive verbs to yield factual, non-habitual readings in the present tense, and simultaneous readings in past-under-past embedded contexts.

1.3. On the distribution of the English past forms

In English, the simultaneous reading of an embedded predicate is possible only with statives:

(21)	a. John said that Mary was sick.	(SIMUL; SHIFTED)
	b. John said that Mary ate a sandwich.	(*SIMUL; SHIFTED)
	c. John said that Mary run.	(*SIMUL; SHIFTED)
	d. John said that Mary reached the top.	(*SIMUL; SHIFTED)

The important point here is that Italian and English, though differing with respect to the interpretation of embedded past tense activity predicates (*correre/ run*), and of accomplishments (*mangiare una* mela/ *eat an apple*), behave in the same way with respect to the achievement *raggiungere la vetta/ reach the top*, cf. (20a) and (21d).[16]

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16. The parallelism extends to present tense matrix sentences. Observe, in fact, that, as already recalled in the text, in no case English eventive predicates yield felicitous ongoing/non-habitual readings in the present tense. That is, the pattern observed in the text for subordinate clauses is generalised to all eventive predicates:

(i) a. *Mary eats an apple.
b. Mary is eating an apple

Moreover, the embedded English stative (*be sick*) is equivalent to the embedded imperfect form of the corresponding Italian stative predicate only as far as the simultaneous interpretation is concerned. As seen in § 1.1, in fact, in Italian the shifted reading is available only if the context provides an appropriate temporal referent, this being due to the anaphoric properties of the imperfect. The English simple past, on the other hand, is not anaphoric. Therefore, (21a) can yield a shifted reading even if uttered out-of-the-blue.

2. Sequence of Tense in fictional contexts

2.1 Complements of dream with the imperfect tense

Let's turn now to the main topic of this paper — namely, the contexts created by the verb *sognare* (dream). As pointed out in the introduction, in Italian such a verb admits the imperfect tense in the subordinate clause:

(22) Gianni ha sognato che Maria era felice.
Gianni dreamed that Maria was(IMPF) happy.

(23) Gianni ha sognato che Maria correva.
Gianni dreamed that Maria ran(IMPF).

(24) Gianni ha sognato che Maria mangiava un panino.
Gianni dreamed that Maria ate(IMPF) a sandwich.

(25) Gianni ha sognato che Maria raggiungeva la vetta.
Gianni dreamed that Maria reached (IMPF) the top.

(ii) a. *Mary runs
b. Mary is running

(iii) a. *Mary reaches the top
b. Mary is reaching the top

Note the absence of any contrast between achievement and non-achievement eventive predicates. Example (25) is perfectly well-formed and no further context is needed to make it acceptable, contrasting with the analogous case in which this predicate was embedded under *dire* (say) — cf. (20a) above. The difference is not due to manipulations performed by the context created by *dream* on the actional properties of achievements. Indeed, the lexical perfectivity/ telicity of such predicates is maintained:

(26) a. #Gianni ha sognato che Maria raggiungeva la vetta, ma un fulmine la colpiva e lei non poteva arrivare in cima
Gianni dreamed that Maria reached (IMPF) the top, but a bolt stroke here and she couldn't reach the top.

b. Gianni ha sognato che Maria stava raggiungendo la vetta, ma un fulmine la colpiva e lei non poteva arrivare in cima.
Gianni dreamed that Maria was reaching the top, but a bolt stroke here and she couldn't reach the top.

These examples are fully parallel to (18b)-(18c), showing that the actional properties of the predicate are not affected by the fact that it appears in a fictional context. Thus, some other property of *dream* contexts must be responsible for the fact that in Italian the imperfect tense attached to inherent telic/perfective predicates gives rise to acceptable sentences.

Interestingly, the same situation obtains in English, extending, however, to all eventive predicates — expectedly, indeed, given the discussion about the trade-offs between temporal interpretation and aspectuality at the end of the previous section.

(27) John dreamed that Mary was happy.

(28) a. John dreamed that Mary ran.
b. John dreamed that Mary ate an apple.
c. John dreamed that Mary reached the top.

We saw above — cf. exx. (21b)-(21d) — that in English, past eventive predicates embedded in *saying* contexts can only be interpreted as shifted. In dream contexts this is not the case. As in the Italian cases, sentences such as (28a) or (28b) are well-

formed even in the absence of a shifted reading. This way, the meaning of, e.g., (27b) is simply that the eating of the apple by Mary is the *content* of the dream, and nothing is said about the temporal relation between such an event and the dream itself, or the utterance.

Let us summarise our observations so far. We saw that eventive predicates in English, and achievements predicates in Italian behave alike: due to their aspectual properties — namely, terminativity—they do not yield simultaneous readings with respect to their temporal anchors, in matrix clauses and in the contexts created by 'normal' propositional attitude predicates. Also, they are alike in dream contexts where these constraints do not hold. Finally, such a different behaviour cannot be attributed to actional changes induced by the matrix verb *dream*, but must be due to some other property of dream contexts.

We propose that what distinguishes *dream* contexts from those created by verbs such as *dire* (say), *credere* (believe), etc., is the absence of temporal anchoring requirements in the former. That is, the lack of obligatory backward shifting in English is due to the fact that a verb such as *dream* does not enforce temporal anchoring.

In a way, this doesn't come out as a surprise. We clearly feel that the events that are the object of dream reports need not be not temporally connected with either the utterer's *now* or the subject's (the dreamer's). Thus for (23) and (28a) to be felicitous, the event doesn't need to be interpreted as simultaneous, preceding, or following the dream event and/or the utterance. As we will argue below, the importance of these observations is due to the fact that the non-temporality of dreams has a precise encoding at both the morphosyntactic and the semantic levels. And, conversely, to the fact that the temporal anchoring requirements of most matrix and propositional attitude contexts has an equally strict encoding at the same levels.

If our proposal concerning sentences such as (22)-(26) is correct, it follows that in those examples the imperfect does not contribute any interpretable temporal relation.

Such a corollary of our hypothesis can be tested in a subtle, but telling way by resorting to the readings we dubbed *modal* in §1.1. We argued that when a future-oriented temporal adverbial (in a sentence final position) is used with the imperfect, the tense cannot directly constrain the eventuality, and the sentence acquires a

particular *modal* interpretation. The conclusion was that in these cases a hidden modality node is present, receiving its temporal location from the tense. In terms of anchoring conditions, in (7a) or (17) the context enforces temporal anchoring, and such a requirement must be satisfied by the imperfect, by making its temporal value available. The imperfect, however, cannot accomplish such a goal by constraining the event (which is independently specified to take place in the future), but can only constrain the hidden modal projection.[17]

If so, we expect that whenever temporal anchoring is not enforced, so that the temporal contribution of the imperfect is not needed, the modal projection is not necessary as well, and the modal meaning is absent. This is actually what we find in *dream* contexts:

(29) Gianni ha sognato che Maria arrivava domani.
G. dreamed that M. arrived (IMPF) tomorrow.

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17. Functionally, tenses are the devices for satisfying anchoring requirements. Anchoring requirements, in turn, aren't simply conceived of as means for temporally locating eventualities, but, more perspicuously, for temporally locating them with respect to designated *anchors* — i.e., the utterance, in matrix context, and the matrix eventuality, in complement clauses. Many of the differences among tenses, including those encoded by mood, can be shown to be reducible to morphosyntactic and interpretive differences in the way they comply with the anchoring conditions.
This account can also shed light on the differences and trade-offs between tenses and locating temporal phrases. Functionally, the latter, and only the latter, 'locate' the eventuality, the tense being only involved in anchoring conditions. Many of the examples discussed in the text — most notably, those yielding the modal readings — are better seen as cases in which tenses conflict with temporal phrases. E.g., temporal phrases might impose requirements — e.g., future orientation — that a tense such as the imperfect cannot comply with. In the cases discussed in the text the conflict is solved by making an extra eventuality available — by means of the hidden modal projection — which is, in turn, constrained by the tense. As already observed, the possibility of resolving such conflicts by projecting null (modal) nodes is constrained by language-specific factors. Thence, although the English simple past can be argued to share some of the properties of the Italian imperfect, the English counterparts of the Italian modal readings of sentences with the imperfect do not exist because English hasn't (or does not allow) null modals.

This sentence contrasts with (17). Whereas the latter meant 'Gianni said that Mario had to leave tomorrow', (29) simply means what the English glosses show: that Gianni dreamed an event of leaving which, in the dream, took (notice the tense) place tomorrow.

The fact that in *dream* contexts the imperfect does not (necessarily) contribute an interpreted temporal relation is shown by the following sentences in a more direct way:

(30)a. La settimana scorsa Gianni ha sognato che *ieri* Maria vinceva al totocalcio.
Last week Gianni dreamed that yesterday Maria won(IMPF) the lottery.

b. La settimana scorsa Gianni ha sognato che *domani* Maria vinceva al totocalcio.
Last week Gianni dreamed that tomorrow Maria won(IMPF) the lottery.

c. *La settimana scorsa Gianni ha detto che *ieri* Maria vinceva al totocalcio.
Last week Gianni said that yesterday Maria won(IMPF) the lottery.

As can be seen from (30a) and (30b), a temporal phrase in the subordinate clause can freely locate the imperfect tense eventuality in the past or in the future. Such a freedom is not available with propositional attitude predicates, cf. (30c).

Thus, we can accept the conclusion that in *dream* contexts, where the anchoring condition is not enforced, the imperfect does not contribute any interpretable temporal relation. It also follows that when the imperfect does contribute a temporal meaning, this is so because the context created by the superordinate predicate requires it. That is, the imperfect can contribute a temporal value, but makes it available only if the context enforces temporal anchoring. This conclusion is not trivial. As we will see, other tenses behave differently, being always associated with temporal anchoring.

Another consequence follows from the hypothesis that dream contexts are temporally non-anchored. Consider the possibility that temporal anchors are available for reference only thanks to the anchoring conditions. According to such an hypothesis, in a matrix sentence such as *John ate* the reference to the utterance

(time) only comes in during, and is limited to, the process of satisfying the anchoring conditions by means of the tense. Similarly, in a propositional attitude context such as *John said that Mary was sick*, reference to the matrix eventuality, seen as the anchor for the embedded clause, only comes into play because the anchoring conditions must be satisfied. If this is correct, then we expect that whenever the anchoring conditions are not enforced — e.g., in *dream* contexts — reference to the anchor is not available.[18]

To test such a prediction we can use *dream* contexts and the anaphoric phrase *in quel momento* (at that moment). Normally, such a phrase can pick up a (temporal/eventive) reference which is made available by the context:

(31) A: Cosa è accaduto ieri alle tre?
What happened yesterday at three?
B: Non so. In quel momento dormivo.
I don't know. At that moment I was sleeping.

Here, the first sentence introduces a temporal referent, which the anaphoric phrase of the second sentence picks up. In embedded contexts, *in quel momento* can refer back to the temporal anchor:

(32) a. Gianni credeva che in quel momento Maria mangiasse una mela.
Gianni believed that in that moment Maria ate (PAST SUBJ) an apple.
b. Gianni ha detto che in quel momento Maria mangiava una mela.
Gianni said that in that moment Maria ate (IMPF) an apple.

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18. The hypothesis might have a tautological flavour: if there are no anchoring conditions then there are no entities playing the role of temporal anchors. But this is not the point we are making. What we want to draw attention to is the very fact that the entities that usually play the role of temporal anchors are *tout court* not available for reference in non-anchored contexts. That is, not simply as temporal anchors, but to more general referential purposes too. In the language of DRT, their discourse referents are absent, or not reachable from within the contexts we are considering.

In both examples, the anaphoric phrase can refer to the matrix eventuality (the anchor), with the effect of emphasising the (already available) simultaneous reading. As a consequence, both examples in (32) are well-formed even when uttered out-of-the-blue. Such results cannot be replicated when the matrix verb is *dream*:

(33) #Gianni ha sognato che in quel momento Maria mangiava una mela.
Gianni dreamed that in that moment Maria ate (IMPF) an apple.

The diacritic # signals the inappropriateness of out-of-the-blue utterances of (33). In this case, the context does not provide any temporal reference, besides the matrix eventuality. The fact that (33) is odd shows that such an eventuality is not available for reference from within the subordinate clause. That is, the status of (33) is similar to that of the following sentence when uttered in absence of any previous context:

(34) #In quel momento Gianni mangiava/mangiò una mela.
In that moment Gianni ate(IMPF)/ate(SIMPLE PAST) an apple.

Example (33) contrasts with the following:

(35) Tre giorni fa Mario ha dato l'esame di matematica. Ieri Carlo ha sognato che in quel momento Mario partiva.
Three days ago Mario gave the math examination. Yesterday Carlo dreamed that in that moment Mario left(IMPF).

In (35) *in quel momento* (in that moment) can refer to the event of giving the examination, which is provided *outside* the dream context. This shows that the oddness of (33) is not due to the fact that, for some reason, the phrase *in quel momento* is generally unable to find an antecedent when embedded under *dream*. Thus, the conclusion is that in *dream* contexts the matrix eventuality is not an available antecedent, as predicted by our hypothesis.

Note that this conclusion is not *a priori* necessary. One might accept that anchoring conditions — namely, the necessity to connect events to some distinguished eventuality such as the utterance or the matrix one — need be explicitly enforced, and that when this is not the case, events are not connected to any temporal anchor. At the same time, it is logically possible that the entities which

in a given context usually play the role of temporal anchors are still available for reference. That is, one might entertain the logical possibility that the entity x which usually plays the role of temporal anchor though not available as a temporal anchor — given the absence of anchoring conditions — can nevertheless be used by other referential processes. In the case of a subordinate clause C, the event that usually plays the role of temporal anchor is the matrix eventuality e. Such an event, if the hypothesis were correct, would not be available as a temporal anchor, but could be accessible to other referential processes originating from within C. Examples such as (33) show that this is not the case.[19]

Taking temporal anchors as components of the *egocentric coordinates* of a subject (the believer, the sayer, the dreamer, the utterer, etc.) — that is, as participating in the set of entities which subjects exploit to locate themselves — the conclusion is that precise conditions must be met in order for the temporal egocentric coordinate—namely, the subject's *now*—to be available from within given clause: anchoring conditions must be at play, and be satisfied by the tense. If there aren't anchoring conditions, then the entity that would otherwise play the role of temporal anchor is not available— that is, the relevant portion of the egocentric coordinates is not there.[20] [21]

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19. In passim, it can be observed that these conclusions run against attempts to reduce temporal anchoring to straightforward anaphoric processes.

20. For the notion of *egocentric coordinates* see Evans (1982, ch.6).

21. One might wonder whether similar results can be obtained with other egocentric coordinates— e.g., those exploited by the subject to locate him/herself in space. Indeed, it seems that something similar might be the case. Thus, consider the behaviour of the deictic element *lì/ là* (there). They can refer to the location of a sayer, believer, etc., but not to the location of a dreamer:

(i) a Gianni gli disse che Maria era lì.
Gianni told him that Maria was there.

b. Gianni credeva che Maria fosse lì.
Gianni believed that Maria was there.

c. #Gianni ha sognato che Maria era lì/ là.
Gianni dreamed that Maria was there.

2.2. Evidential dreams

In the previous section we argued that *dream* contexts do not require temporal anchoring. We also saw that in these cases the imperfect does not provide any temporal relation. Thus dream contexts with the imperfect provide the counterpart to the non-temporal uses of the imperfect in matrix sentences we discussed in §1.2.

Now, recall that the other tenses of the indicative never allow for non-temporal readings in matrix contexts.[22] One possible prediction from the theory developed so far is that such forms should not be possible in *dream* sentences. The fact that they do not allow non-temporal readings in matrix contexts, in fact, suggests that they can occur only in 'anchored' environments. Therefore, they are predicted not to appear in dream contexts, given that they do not enforce temporal anchoring. We will see that this expectation is not completely borne out. Non-imperfect indicative tenses are actually grammatical in dream contexts and give rise to a range of phenomena which clearly show that the verbal forms *are* anchored. Interestingly, however, when a non-imperfect indicative appears in dream contexts, the sentence exhibits peculiar interpretive properties

As anticipated, non-imperfect indicative tenses are possible with *sognare* and give rise to a pattern different from the one we discussed in § 2.1; in these cases, in fact, the event *is* clearly anchored. Consider the following minimal contrast:

(36) La settimana scorsa Gianni ha sognato che ieri Maria vinceva /*ha vinto al totocalcio.
Last week Gianni dreamed that yesterday Maria won(IMPF/PAST) the lottery.

Indexical reference to the subject's location is possible with both *say* and *believe*. It is not available with *dream*. Thus, these data parallel the pattern discussed in the text and support the idea that, whereas normal attitude contexts (including matrix assertions) incorporate (or provide access to) the egocentric coordinates of the attitude bearer, dreams do not have such a capability.

22. With some provisos for the present tense, which shares some of the modal properties of the imperfect. A detailed analysis of the present tense, however, lies outside the scope of this work.

The sentence is fine with the imperfect, but not with the present perfect. The incompatibility of the present perfect with the future-oriented temporal phrase shows that with such a verbal form temporal anchoring is enforced. Consider also the following example:

(37) a. L'esame di matematica si svolgerà la settimana prossima.
The math examination will take place next week.
b. L'esame di matematica si è svolto la settimana scorsa.
The math examination took place last week.

(38) a. Ieri Gianni ha sognato che Maria lo superava. (37a; 37b)
Yesterday Gianni dreamed that Maria passed(IMPF) it.
b. Ieri Gianni ha sognato che Maria lo ha superato. (*37a; 37b)
Yesterday Gianni dreamed that Maria passed it.

Here we have two discourses introduced by either (37a) or (37b). These two sentences differ with respect to the way they locate a given event, the math examination: in the future, in (37a), and in the past, in (37b). The sentences in (38) are two possible continuations, both consisting of a *dream* context with a past tense in the subordinate clause and a pronoun taking the event of the first sentence as antecedent. In (38a) the embedded tense is the imperfect, whereas in (38b) it is a present perfect. Now, (38a) is a possible continuation for both discourses in (37). That is, both (37a)+(38a) and (37b)+(38a) are well-formed discourses. The sentence in (38b), however, is a possible continuation only for (37b), not for (37a) — that is, (37b)+(38b) is a well-formed discourse, but (37a)+(38b) is not. The reason for the difference is that the combined effect of the absence of anchoring and of the non-temporality of the imperfect makes it possible for the pronoun in (38a) to refer both to the future event of (37a) and to the past event in (37b). On the other hand, the ill-formedness of (37a)+(38b) shows that the present perfect is anchored — that is, it constrains the embedded event, forcing the reference of the pronoun to be in the past.

These observations agree with the native speaker intuitions. There is a sense in which the subordinate events of the following sentences seem to occur (if they occur) in the past and in the future, respectively:

(39) a. Gianni ha sognato che Maria ha vinto al totocalcio.
Gianni dreamed that Maria has won the lottery.

b. Gianni ha sognato che Maria vincerà al totocalcio.
Gianni dreamed that Maria will win the lottery.

The examples in (39) clearly contrast with the non-temporality of such sentences as (22)-(25). Finally, all sentences with non-imperfect tenses exhibit the DAR (Ogihara 1995; Abusch 1997; Giorgi & Pianesi 1999a), as can be better seen in present-under-past sentences:

(40) Gianni ha sognato che Maria è incinta.
Gianni dreamed that Maria is pregnant.

Here, the time of Mary's pregnancy must overlap both the utterance time and the dream time, paralleling the result obtained with 'classical' cases of DAR:[23]

(41) Gianni ha detto che Maria è incinta.
Gianni said that Maria is pregnant.

Thus, we can conclude that when a non-imperfect (indicative) tense is embedded under *sognare* the event *is* anchored, contrary to what happens when an imperfect is used.

If correct, such a result cannot be due to the properties of dream contexts, for we have shown that there are reasons to think that these contexts do not enforce anchoring conditions. Rather, the availability of temporal anchoring with non-imperfect indicative tenses must be due to some property distinguishing them from

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23. Thus, (ia) is as much odd as (ib):

(i) a. Dieci mesi fa Gianni ha sognato che Maria è incinta.
Ten months ago Gianni dreamed that Maria is pregnant.

b. Dieci mesi fa Gianni ha detto che Maria è incinta.
Ten months ago Gianni said that Maria is pregnant.

the imperfect. We will return to these facts in § 3, where it is argued that in this case the sentence works as a propositional attitude context, conveying a special meaning, which will be called *evidential*, because it shares at least some of the properties of traditional evidentials and epistemics.

The availability of temporal anchoring and of the DAR with non-imperfect indicative tenses has further consequences. Consider the following two sentences:

(42) a. Gianni ha sognato che c'è stato un terremoto.
Gianni dreamed that there has been an earthquake.
b. Gianni ha sognato che c'era un terremoto.
Gianni dreamed that there was(IMPF) an earthquake.

These two sentences do not only differ in that the first locates the earthquake in the past, with respect to the utterance and the dream, whereas the second sentence doesn't. They also differ in the kind of *attitude* the utterer takes with respect to the content of the subordinate clause. When uttering (42b) — and, more generally, any dream-sentence with the imperfect — the speaker simply reports about someone's dream. When using (42a), on the other hand, the utterer does something else: he/she is using the dream to talk about current states of affairs, exhibiting an attitude of his/hers towards the dream content and entailing some behavioural disposition. Thus, imagine a religious sect. One day the Master tells his disciples:

(43) La notte scorsa ho sognato che un terremoto distruggeva la nostra civiltà.
Last night I dream that an earthquake destroyed(IMPF) our civilisation.

Then, the disciples go around the country proclaiming:

(44) Pentitevi. Il nostro Maestro ha sognato che un terremoto distruggerà la nostra civiltà.
Repent your sins. Our Master dreamed that an earthquake will destroy our civilisation.

They can't use the imperfect in the subordinate tense, if their purpose is to urge people to repent their sins:

(45) #Pentitevi. Il nostro Maestro ha sognato che un terremoto distruggeva la nostra civiltà.
Repent your sins. Our Master dreamed that an earthquake destroyed(IMPF) our civilisation.

Were they to use (45), they would simply describe their master's dream, without making its content relevant to actuality — that is, without taking any attitude towards it, and without entailing (and soliciting) any behavioural disposition towards it. Thus the predication would be ineffective.

For a similar example involving the past, imagine a group of people who have been away from their country for a long time, spending their time in a desert without communicating with the rest of the world. If someone of the group asks *What might have happened during this period in our country?*, (42a) would be an informative reply, whereas (42b) would not. This is so because by using (42a), the utterer is presenting the content of the dream as concerning possibly actual facts and offers the dream itself as evidence, this way answering to the friend's worries. Obviously, neither in this example nor in that of the disciples, the utterer needs commit him/herself (and the hearer) to the truth of the embedded proposition; rather, he/she is presenting a proposition/possibility together with supporting evidence, the dream.

This analysis makes dream contexts with a non-imperfect indicative tense very similar to *epistemic evidentials*:

(46) Visto che i suoi libri sono qui, Mario deve essere/ sarà in casa.
Given that his books are here, Mario must be/ will be here at home.

By uttering an epistemic evidential sentence, the speaker presents a proposition with some background evidence that might — usually, inferentially — support the truth of the proposition.[24] In (46) the evidence is explicitly given (the presence of Mario's books). However, the same effect could have been obtained by simply pointing to the books and uttering 'He must be here at home'. If our analysis of non-

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24. For a survey of the notion of evidential, see Palmer (1989). See also Chafe & Nichols (1986) for a crosslinguistic and typological analysis of evidentials.

imperfect dream contexts as similar to epistemic evidentials is correct, the evidence, in such cases, is the dream itself.

More facts can be brought to bear in favour of a close connection between *evidential dreams* and ordinary epistemic evidentials. For instance, for obvious reasons epistemic evidentials cannot introduce a proposition for which there is explicit evidence to the contrary. Thus, suppose someone utters the following sentence:

(47) Maria non è incinta.
Maria is not pregnant.

Consider the possible continuations given in (48):

(48) a. Ma Gianni ha detto che lei è incinta.
But Gianni said that she is pregnant.

b. Ma Gianni ha sognato che lei era incinta.
But Gianni dreamed that she was(IMPF) pregnant.

c. #Ma vista la sua pancia, deve essere/sarà incinta. (epistemic)
But given her belly, she must be pregnant.

d. #Ma Gianni ha sognato che lei è incinta. (evidential dream)
But Gianni dreamed that she is pregnant.

The discourse can be continued by uttering (48a). The fact that Gianni said that Maria is pregnant does not contrast with what previously asserted. Gianni was simply wrong, or purposely lied. The discourse can also be continued by means of (48b): Gianni's dream need not comply with reality. On the other hand, (48c) is not a felicitous continuation. Such a sentence is an epistemic evidential, describing the speaker's judgement/inference given certain evidence. Sentence (47) cannot be followed by (48c), for the latter amounts to a denial of the former.

Importantly, (47) cannot be followed by (48d) either. Despite being a dream-sentence, it differs from (48b) — which was a felicitous continuation — in that it features a non-imperfect embedded tense. The infelicity of (47)+(48d) is the same as that of (47)+(48c): in both cases the speaker first asserts the truth of a proposition, then presents evidence (Maria's belly, and Gianni's dream) supporting the falsehood of the same proposition.

Another similarity between evidentials and dream contexts with non-imperfect tenses involves *existence entailments*. It is well-known that the use of names of fictional entities in propositional attitude contexts does not commit the utterer to any positive attitude towards the existence of the entity itself:

(49) Mario ha detto che Carlo ha incontrato Sherlock Holmes.
Mario said that Carlo met(PAST) Sherlock Holmes.

An utterance of (49) does not create particular metaphysical problems, for no one uttering (49) need be taken to believe in Sherlock Holmes' existence. Similar considerations hold for utterances of (50):

(50) Mario ha sognato che Carlo incontrava Sherlock Holmes.
Mario dreamed that Carlo met(IMPF) Sherlock Holmes.

As before, no one can be charged to believe in the existence of Sherlock Holmes upon uttering such a sentence. Consider, however, epistemic evidentials:

(51) #Mario deve avere incontrato Sherlock Holmes.
Mario must have met Sherlock Holmes.

Sentence (51) actually entails that the speaker has misconceptions about Sherlock Holmes' existence. This is true also for utterances of (52):

(52) #Mario ha sognato che Carlo ha incontrato Sherlock Holmes.
Mario dreamed that Carlo met(PAST) Sherlock Holmes.

As with the epistemic evidential (51), and contrary to the imperfect dream context (50), an utterance of (52) actually commits the speaker to believe in the existence of Sherlock Holmes. In the terminology of Zalta (1988), evidential dreams license *existential generalisation* — e.g., an utterance of (52) entails (53):

(53) Qualcosa che esiste è tale che Mario ha sognato che Carlo ha incontrato tale cosa.
Something existing is such that Mario dreamed that Carlo met that something.

Thus, epistemic evidentials are *intensional*, but not *hyperintensional* (Cresswell 1975; Neale 1990). Another difference between intensional and hyperintensional contexts, and one which is related to existential generalisation, is that the former license the substitution of identicals, whereas hyperintensional contexts don't:

(54) a. Cicerone era sconvolto. Doveva aver incontrato Cesare.
Cicero was upset. He must had met Caesar

b. Cesare= il conquistatore della Gallia
Caesar=the conqueror of Gaul

c. Cicerone era sconvolto. Doveva aver incontrato il conquistatore della Gallia.
Cicero was upset. He must had met the conqueror of Gaul.

In an epistemic evidential context, the joint truth of (54a) and (54b) entails the truth of (54c). This is not so in an hyperintensional context:

(55) a. Cassio ha detto che Cicerone ha incontrato Cesare.
Cassius said that Cicero met Caesar

b. Cesare= il conquistatore della Gallia
Caesar=the conqueror of Gaul

c. Cassio ha detto che Cicerone ha incontrato il conquistatore della Gallia.
Cassius said that Cicero met the conqueror of Gaul.

Here the joint truth of (55a) and (55b) does not entail the truth of (55c). Non-imperfect dreams pattern with epistemic evidentials:

(56) a. Mario ha sognato che Clinton ha incontrato Marilyn Monroe.
Mario dreamed that Clinton met Marilyn Monroe.

b. Marilyn Monroe=Norma Rae

c. Mario ha sognato che Clinton ha incontrato Norma Rae.
Mario dreamed that Clinton met Norma Rae.

The joint truth of (56a) and (56b) does entail the truth of (56c).

In the end, both existential generalisation and the substitutivity of identicals are a consequence of the evidential/epistemic status of non-imperfect dreams. Such a status requires that a proposition be presented by the utterer, together with relevant evidence — in the present case, the fact that someone had a dream whose content the proposition matches.

To conclude, in this section we have shown that whenever non-imperfect indicative tenses are used in dream contexts, the event is temporally anchored. At the same time, the content of the dream is the object of an attitude of the speaker which we have assimilated to evidentials. Contrary to what happens with ordinary propositional attitude contexts, the attitude we have been describing is the speaker's, not the subject's/the dreamer's.

3. Towards a Theoretical Account

To summarise the discussion so far, the generalisations emerging from the data are the following:

(i) Dream contexts do not enforce temporal anchoring — that is, they do not require that the embedded event be temporally connected with, e.g., the matrix eventuality.

(ii) The imperfect can both comply with anchoring conditions, as in many matrix and subordinate contexts, and provide non-temporal readings if anchoring conditions are not operative, as in dream contexts.

(iii) Non-imperfect indicative forms always give rise to anchored eventualities. Their use in dream contexts results in an evidential reading.

3.1. Propositional attitudes and temporal anchoring

Point (i) marks a major difference between dreams and ordinary attitude contexts, where temporal anchoring is always enforced. As is well-known, propositional attitude contexts divide according to mood selection. Some of them require the indicative, yielding double access readings (henceforth, DAR) — that is, the eventuality of the subordinated clause is anchored with respect to both the matrix

eventuality and the utterance (Ogihara, 1995; Abusch, 1997; Giorgi & Pianesi, 1999a). When the propositional attitude verb selects the subjunctive, things are somewhat more complex; however, for our present purposes we can maintain that anchoring only obtains with respect to the matrix eventuality. Thus we can conclude that propositional attitude contexts always require the embedded event to be temporally anchored to the matrix eventuality.[25]

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25. It could be argued that *dream* contexts are close to perceptual reports, a possibility suggested by the availability of the paraphrases *see in a dream*.

Although it is not possible to fully discuss the various kinds of perceptual reports here, let us notice that there is a clear difference between dream contexts and 'ordinary' perceptual reports. The latter, in fact, clearly select an anchored complement clause:

(i) Gianni ha sognato che (#in quel momento) Maria mangiava un panino
Gianni dreamed that (#in that moment) Maria was eating a sandwich

(ii) Gianni ha visto che (in quel momento) Maria mangiava un panino.
Gianni saw that (in that moment) Maria was eating a sandwich

Example (ii) is compatible with the temporal phrase *in that moment*, but not (i). This means that the matrix eventuality is available for reference from within the perceptual report. Furthermore, the embedded imperfect constrains the temporal interpretation:

(iii) *Gianni ha visto che Maria domani mangiava un panino.
Gianni saw that Maria tomorrow ate(IMPF) a sandwich.

The unacceptability of (iii) contrasts with the availability, with no modal entailment, of the corresponding dream sentences — cf. ex (29).

Perceptual reports involving a particular media, e.g. television, cinema, etc., and dreams are closer to the contexts created by the simple predicate *dream*:

(iv) a. ?Alla televisione Gianni ha visto che in quel momento Clinton parlava al Congresso.
At the television G. saw that in that moment Clinton spoke(IMPF) to the Congress.

To explain the observed connection between temporal anchoring and propositional attitudes, consider a sentence such as *John believed that Mary was ill.* Putting aside tense complexities for the moment, we take the ascription of this belief to John to amount to saying that he believed that the (actual) world was such that *Mary is ill* was true in it. Similarly, *X wishes that p* is true iff *X* wishes that the actual world is one in which *p* is true. If the main predicate were *fear*, then the truth conditions would require the subject to fear that the actual world be one in which *p* is true, etc. That is, the attitude bearer wishes/fears/believes that the state of affairs corresponding to the subordinate clause is an actual one. Thus, the following interpretive schemata seems to apply:

(57) For ϕ a propositional attitude predicate, 'X ϕs that p' is true iff X ϕs that the (actual) world is such that *p* is true.

The object of propositional attitudes always involves the (actual) world, in the sense that such an object can be seen as a complex (a pair) consisting of the (actual) world and a proposition. This obviously extends to matrix assertive clauses that report about the utterer's attitude towards the truth of a proposition in the world. In this case the utterer *asserts* that the actual world is such that *p* is true.

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b. ??In sogno Gianni ha visto Clinton che in quel momento parlava al Congresso.
In his dream G. saw that in that moment Clinton spoke(IMPF) to the Congress.

The degraded acceptability of the anaphoric phrase *in quel momento* (in that moment) is paralleled by the improved status of sentences with future-oriented adverbials:

(v) a. ?Alla televisione Gianni ha visto che Clinton partiva domani.
At the television Gianni saw that in Clinton left(IMPF) tomorrow.

b. Gianni ha visto in sogno che Clinton partiva domani.
Gianni saw in his dream that Clinton left(IMPF) tomorrow.

These examples show the necessity to extend the analysis in the text also to these contexts. We will not pursue this task here, however. We thank Jean-Yves Pollock for bringing these facts to our attention.

In the language of possible world semantics, these considerations would amount to saying that a wisher does not simply locate him/herself in a world in which the given proposition is true. He/she needs to wish that that world be the actual world. Similarly, a subject believes that *p* iff he/she locates him/herself in a world in which *p* is true, *believing* that that world is the actual world.[26] Thus, propositional attitudes can be described as establishing a relationship between the subject and a complex object consisting of the actual world and the relevant proposition.

Dreams are different. For a sentence such as *X dreamed that p* to be true it need not be the case that *X* dreams that the actual world is such that *p* is true in it. One might insist that dream sentences are true iff the dreamer dreams to be in a world where the given state of affairs obtains. However, it seems wrong to maintain that for those sentences to be true the dreamer needs to dream that that world is the actual one.[27] In this sense, the object of a dream does not necessarily involve the (actual) world, contrary to the object of propositional attitudes. Therefore, the schemata in (57) does not apply. A better truth conditional schema for dreams seems to be the following:

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26. In possible world semantics this is stipulated by the choice of the accessibility relations, and/or modal bases+ordering sources. The effect of such devices is to provide worlds where the subject's beliefs/wishes, etc., are true. So you have doxastic modal bases (worlds in which the beliefs of the subject are true), bouletic modal bases (worlds in which the wishes are true). Moreover, modal bases (and ordering sources as well) can be distinguished according to whether they include the actual world—namely, according to whether they are *veridical* or not (Kratzer 1989; Giannakidou 1998). This possibility has been often exploited to account for the semantic differences between different kinds of propositional attitudes. For instance, it can be argued that beliefs require realistic modal bases whereas wishes do not. The view presented in the text is partially different: it is a basic feature of propositional attitude that they concern the actual world. In this respect, beliefs, wishes, fears are on a par, and to be distinguished from fictions and dreams, which do never concern actuality.

27. The formulation in the text is cautious, leaving open the possibility that in some cases dream sentences might mean that the dreamer dreamed that the actual world is such-and-such. Although we do not understand how this could be the case, we nevertheless prefer to maintain such a possibility.

(58) 'X dreams that p' is true iff X dreams *p*.

In this paper, we do not mean to provide the correct truth conditions for propositional attitudes or dream sentences. Let it suffice to point out that there is ground for thinking that they differ, and that one difference is that propositional attitude verbs establish a relation between a subject, the actual world, and a proposition, whereas with a verb such as *sognare* the reference to actuality is crucially missing.

The crucial point, therefore, is the presence vs. absence of a certain relationship between the subject (of the attitude) and the relevant world. We suggest that such a crucial ingredient be understood in terms of the capability of the subject to locate him/herself, by resorting to *egocentric* coordinates. An attitude by a subject *X* towards a proposition *p* is then dependent on whether *X* locates him/herself in the relevant world. Similar ideas can be found, in different forms, in various accounts of propositional attitudes: e.g., it is present in Lewis' (1979) *centred worlds*, which are defined as "..pairs consisting of a world and a designated space-time point therein" (Lewis 1979) where such a point is to be understood as providing the subject's coordinates. Also, it can be found in Stalnaker's (1984) *diagonal* construction, according to which "..the subject of the attitude and the (very episode) of his/her thought exist in all the possible situations which define the subject's attitude". Finally, it is a constitutive element of approaches based on the idea that propositional attitudes are *token reflexive* (Reichenbach, 1947) in that their content makes room for, and requires the presence of the very event token (be it mental or not) which originate the propositional content, as in Higginbotham's (1995) *tensed thoughts*. This can be spelled out by requiring that the truth conditions for the object of an attitude contain the eventive variable of the matrix clause eventuality. So it seems that all these theories share the insight that having an attitude towards a propositional content requires, and is dependent on the possibility that the subject and the very thought event/time be a constituent of the thought content.

If something like this is on the right track towards providing an understanding of the link between subjects and propositional contents (in propositional attitudes), then the facts discussed in § 1 and § 2 concerning the presence/absence of temporal anchoring can be explained as follows: propositional attitudes require a connection between the subject and the propositional content of the attitude. Such a connection,

in turn, can be understood in terms of the possibility for the subject to locate him/herself in the propositional content. Lastly, the localisation function relies on subject's egocentric coordinates. We can then see temporal anchoring conditions as (a set of) constraints granting that the relevant connection be established at the temporal level. Adopting the idiom of Higginbotham's *tensed thoughts*, reference to actuality, hence to the subject's localisation, in the content of the propositional attitude amounts to requiring that the attitude eventuality—e.g., the wishing, believing, fearing, or saying—be present therein, and that it be connected with the event which is the object of the attitude itself. Conversely, the lack of temporal anchoring makes is a reflex of the impossibility to relate the states of affairs depicted by the subordinate clause to actuality.

When we say that dreams differ from propositional attitudes, then, such a statement should be taken to mean that the verb *dream* doesn't require the relevant relationship between the subject and the content of the subordinate clause. Hence, anchoring conditions are not at play and we do not expect to find the dream event and the subject (as a dreamer) within the propositional content expressed by clauses subordinated to such a verb.[28] Thence, the verb *sognare* (dream) is not a propositional attitude verb.[29]

To conclude, we have proposed that the observed connection between propositional attitudes and temporal anchoring be explained by hypothesising that

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28. The qualification within the brackets is important. For 'X ϕ-ed that p' to be a context of propositional attitudes it does not suffice that *X* be somehow located within the propositional content. It is necessary that he/she be so as the ϕ-er (the believer, wisher, fearer, etc.) of *p*. Thus, beliefs, wishes, etc. contains their subjects as believer, wishers, fearers; dreams, however, do not contain their subjects as dreamers. See also § 4. Notice that, the idea underlying the *tensed thoughts* approach that the connection is established by means of the attitude event captures this condition in a very natural way: the believer is part of the believed content because his/her thought is.

29. A parallel situation can be found with other cases in which some kind of fiction is involved. Thus, consider reading a novel; the reader is not part of the (content of the) book as a reader. As will be remarked below, talk about novels, movies, etc. gives rise to grammatical and interpretive phenomena similar to those we have discussed in connection with dreams.

the latter is a foundational element of the former: given a propositional content and a subject, the content is the object of an attitude of the subject only insofar as the subject and/or the very attitude episode are parts of the propositional content. Notice that, such a view leaves open the possibility that if temporal anchoring is enforced by independent, morphosyntactic means, then we end up having attitudes of a sort even with predicates which, by themselves, do not convey any propositional attitude. We consider this possibility in the next section.

3.2. The Morphosyntax of Temporal Anchoring

As already remarked, we can conceive of temporal anchoring conditions as interpretive (interface) constraints to the effect that the event be connected with the attitude eventuality itself. Building on previous works, in this section we show that satisfaction of such requirements relies on the existence of appropriate structural configurations that, at the interface, support the necessary connection between the event and the anchor. At the same time, we will argue that whenever the relevant configuration is enforced, then a propositional attitude is at play.

In Giorgi & Pianesi (1999a) we discussed the following two structural configurations for the subordinated clauses of propositional attitude verbs:

(59) a. [V1 [CP [C che [AgrP ...[Agr V2$_i$ [Agr [TP..t$_i$..]]]]]]]
b. [V1 [MOOD-P che [AgrP V2$_i$ [TP..t$_i$..]]]]

Structure (59a) is associated with embedded indicative tenses, whereas (59b) is associated with embedded subjunctives. In (59b) the head MOOD attracts the *mood* features of the subjunctive.[30] In (59a) the head C attracts the temporal features of T — the τ-features — giving rise to the following configuration:

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30. In Giorgi & Pianesi (1997, ch. 5) we showed that the category MOOD can be syncretic with the category Agr, accounting for such phenomena as Italian complementiser deletion. Thus (ia), where the complementiser can be omitted, has the structure in (ib):

(i) a. Mario credeva Gianni fosse partito
b. [$_{V1}$ credeva [Gianni [$_{MOOD/Agr}$ fosse$_i$ [$_{TP}$ t$_i$..]]]]

(60) [.....[..[C τ_i C] [AgrP...T_i..]]]

In the quoted work, the DAR (Abusch, 1997; Ogihara 1995) was attributed to such a configuration, explaining the temporal dependencies within a truth-theoretic account, based on *Interpreted Logical Forms* (ILFs; see Larson and Ludlow 1993; Larson and Segal 1995). Simplifying, the idea is that in (59a) the complementiser C has the property of attracting the τ-features of the verb which, upon moving, leave a copy behind. In the resulting configuration, (60), two distinct set of τ-features are available at LF, those in C and the copy in T, both interpreted at the interface. The τ-features in C function as constraints on the assignment sequence used to evaluate the truth conditions of the subordinate clause; in particular, they restrict the temporal reference of the embedded event, by being evaluated with respect to the utterance. The copy in T, on the other hand, is evaluated as usual, with respect to the local anchor—namely, the matrix/attitude eventuality. Thus, the embedded event localisation is constrained twice, with respect to both the utterance and the matrix eventuality.

This view implements the idea that many SOT phenomena in languages such as Italian and English are actually cases of generalised DAR, the latter being conceived of as the result of a double evaluation of the temporal features. In the case of subjunctive clauses, (57b), the resulting configuration is (59b): the τ-features do not move and are interpreted in T as relating the event only to the matrix eventuality.[31]

In the end, anchoring to the utterance requires the presence of the higher complementiser C, and movement of the τ-features thereto. Anchoring to the matrix eventuality, on the other hand, involves τ-features that are in their basic position at LF—namely, T. Whereas with the indicative both processes occur, only the latter does with the subjunctive, applying to the unmoved τ-features in T.

The temporal properties of non-imperfect indicative dreams discussed in § 2.2 fit the analysis just given for normal indicative clauses. A sentence such as (42a) can be assigned the LF in (60), straightforwardly explaining the anchoring of the

31. That is, MOOD in (59b) attracts only the mood features, not the temporal ones.

embedded event to the utterance and, more generally, the DAR pattern observed with so-called *epistemic dreams*..

Turning to imperfect dreams, if nothing else is added to our theory, the expectation is that, being the imperfect an indicative tense, the higher complementiser C is present, with its τ-features attracting properties. The resulting LF configuration would be (60), with the τ-features both in C and in their base position. If we were to treat them as identical to the τ-features of other past tenses, then a sentence with the imperfect—e.g., (61a)—should not be different from a sentence with the simple past, as is (61b):

(61) a. Mario sognò che c'era un terremoto. (a-temporal)
Mario dreamed that there was (IMPF) an earthquake.
b. Mario sognò che ci fu un terremoto. (evidential)
Mario dreamed that there was(SP) an earthquake.

As we know, however, this is not true: (61a) does not display temporal anchoring, whereas (61b) does. The imperfect is problematic for our analysis also with respect to ordinary propositional attitude sentences, as (12), for they do not exhibit any sign of the expected double access.

Modifying ideas available in literature (see, e.g., Stowell 1996; Iatridou 1998), let us propose that morphological tenses be distinguished, for interpretive purposes, into 'true' and 'non-true' tenses. Interpretively, true tenses—e.g., the simple past—are those which give rise to a relationship between the event and a distinguished eventuality—the anchor. When their τ-features are moved to C by leaving a copy behind, it is such a relationship which is twice represented—ultimately, leading the event variable to be constrained twice.

The imperfect is not a true tense. Its τ-features rather than interpretively corresponding to a relationship between events are more alike to a presuppositional device, constraining whatever they come in construction with. For instance, we posit (62b) as the configuration underlying the continuous reading of (62a):

(62) a. Alle tre Maria mangiava.
At three Maria ate(IMPF).
b. [alle tre [T [VP ..]]]

At some point in the derivation, the temporal phrase *alle tre* (at three) is in Spec,T, in a Spec-Head agreement relation with T. This permits the τ-features of the imperfect (roughly, *past*) to constrain the reference of the temporal phrase.[32] When such a configuration is in a subordinate clause, the τ-features are attracted to C, as expected given our theory. Therefrom they can agree with the τ-features of the matrix verb, without further interpretive consequences—that is, they are interpretively inert in this case. This possibility obtains both with the simultaneous readings of ordinary propositional attitude contexts, discussed in §1.1:

(63) Mario ha detto che Carlo dormiva.
Mario said that Carlo slept(IMPF).

and with the non-temporal reading of dream contexts:

(64) Mario ha sognato che Carlo dormiva.
Mario dreamed that Carlo slept(IMPF).

Both (63) and (64) can be given the LF structure in (60), with the τ-features of the imperfect in C. The fact that they are interpretively inert because of agreement with the matrix tense accounts for the lack of anchoring with respect to the utterance event. The remaining difference between (63) and (64), the simultaneous vs. non-

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32. It must be emphasised that the τ-features of the imperfect behave differently than the corresponding features of, e.g., the simple past. In the latter case we have a 'real' interpretive contribution, incorporating the eventive variable. In the case of the imperfect the τ-features are more similar to the number of gender feature of adjectives, which agree with those of the noun. One might venture that the τ-features of the imperfect are non-interpretable (Chomsky, 1995), though further investigation would be needed.

It is neither possible to fully justify the proposed classification of the imperfect as a non-true tense, or to discuss the consequences of such an idea. It can be shown, however, that it has consequences for the analysis of a number of phenomena the imperfect is involved in—e.g., its alleged anaphoricity, the so-called continuous/on-going readings, the distributional pattern with temporal phrases mentioned in fn. 9, the use of the imperfective in habituals, etc.

anchored reading, is entirely reducible to the presence vs. absence of anchoring condition. Consider the LF representation for the subordinate clauses of (63) and (64):

(65) [[C τ_i][...[pro [T_i [VP ..]]]]]

Here an empty pronominal takes the place of the overt temporal phrase of (62b). Besides this, the structure is substantially the same. Given the absence of an intrinsic meaning to the τ-features of the imperfect, there is no question concerning copying upon movement of the τ-features of the imperfect.[33] Therefore, (65) is tenseless and any further temporal meaning is simply the result of contextual requirements—namely, anchoring conditions. In the case of (63), they are in force, and simultaneity is obtained by letting *pro* take its reference from the anchor, the matrix event. This directly satisfies the anchoring conditions if, as argued above, they amount to the requirement that the matrix eventuality be represented in the clause. In the case of (64), where neither anchoring conditions nor temporal anchors are available, *pro* remains a free variable, deriving the non-temporal reading.[34]

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33. Adopting an old terminology, in this case movement would not involve a referential index. It would do so with non-imperfect tenses, where the index involved is that of the event.
Notice, on the other hand, that the τ-features of the simple past, which correspond to a relation involving the event, once moved in C cannot simply agree with the corresponding features of the matrix predicate, but must enter interpretive processes, thence the DAR.

34. Let us emphasise once more that the non-anchored nature of imperfect dreams must not be understood in the sense that there is no time at all, but simply that there is no connection with a temporal anchor. That temporality, in the broader sense, is available is shown by such examples as:

(i) Mario ha sognato che Carlo mangiava e Giuseppe cantava.
Mario dreamed that Carlo ate(IMPF) and Giuseppe sang (IMPF)

Here the dream is about a situation in which at a certain time an event of eating and an event of singing are on-going.

To conclude, in this section we have shown how the facts which concerned us in this paper can be explained by combining a) the relationship discussed in § 3.1 between propositional attitudes and temporal anchoring; and b) the morphosyntactic and interpretative properties of the complementiser C, and of morphological tenses. In particular, we argued that:

C always requires indicative tenses.

When the embedded tense is a 'true' one, then the resulting LF has two sets of τ-features, one in C and the other in T. The former accounts for the anchoring with respect to the utterance, the latter for the anchoring with respect to the matrix eventuality.

When the embedded tense is the imperfect, the τ-features in C are interpretively inert. The fate of the embedded clause, as far as temporal interpretation goes, is then determined by the presence vs. absence of anchoring conditions. If they are present, the result is a simultaneous reading. If they are absent, as in dreams, nothing else need be said.

4. Dreamers' attitudes?

In the previous sections we have shown that when a non-imperfect indicative tense is used in the embedded clause, the corresponding eventuality is anchored to the utterance. ,The proposed an explanation is that anchoring comes about in virtue of the τ-features of the verb being in C. This by itself suffices to account for anchoring to the utterance/utterer. Importantly, such a result is independent of whether the matrix verb is a propositional attitude predicate, being entirely reducible to the properties of C and of the embedded tense. In this sense, the presence of interpretable τ-features in C forces temporal anchoring, irrespectively of the properties of the matrix predicate—a welcome result in view of the facts concerning evidential dreams.

There's still a point that deserves discussion, though: when a non-imperfect indicative tense is used, anchoring does not only obtain with respect to the utterance, but involves also the matrix event, cf. (36). This conforms to the theory developed in § 3.2: a tense such as the simple past is a true tense, therefore its τ-features move to C by leaving a copy behind. The copy left in T must be interpreted and this can

only obtain through local anchoring. In the end, the LF configuration for a sentence such as (39) is identical to that found in a propositional attitude context—namely, (60).

If this correct, the remaining problem is constituted by the fact that a verb such as *sognare* does not by itself enforce local temporal anchoring. The conclusion reached above concerning the relationships between temporal anchoring and the presence of a propositional attitude entails that sentences such as (39) need not convey any attitude of the subject towards the content of the subordinate clause, because of the properties differentiating a verb such as *sognare* (dream) from verbs such as *credere* (believe). Ultimately, *sognare* (dream) is not a propositional attitude verb. But how can we accommodate such a predicament with the observation, equally following from the proposed theory, that in utterances of such as (39) there is local temporal anchoring, hence a subject's attitude? What kind of dreamer's attitude is involved in dream sentences with double access readings?

According to the discussion in § 3.1, if there is any attitude of the subject in (39), then this cannot be an attitude of his/hers as a dreamer, and the attitude itself cannot be the dream; rather, the attitude must come from a difference source than the matrix predicate. We suggest that, in the examples discussed the specification of the attitude the subject takes is left to the context. To see that this is possible, let us consider dream sentences in which *only* local anchoring and an attitude by the dreamer are present — namely, sentences with an embedded perfect conditional, the verbal form expressing the future-in-the-past in Italian. They are relevant for our case because such a verbal form is always and exclusively anchored to the matrix predicate. Therefore, they do not give rise to the DAR, and do not involve the utterer at any extent. In a way, their temporal properties are a directly reflex of the subject's attitude.[35]

(66) a. Dieci giorni fa Maria ha sognato che lo scorso mese/ l'anno prossimo suo marito andava in Russia.
Ten days ago Maria dreamed that last month/ next year his husband went(IMPF) in Russia.

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35. For the perfect conditional and the future-in-the-past, see Giorgi and Pianesi (1999a). See also Abusch (1997).

b. Dieci giorni fa Maria ha sognato che lo *scorso mese/ l'anno prossimo suo marito sarebbe andato in Russia.
Ten days ago Maria dreamed that *last month/ next year his husband went(IMPF) in Russia.

As can be seen, the attempt at explicitly locating the event in the past with respect to the dream time yields acceptable results with an embedded imperfect, but results in an infelicitous sentence with an embedded perfect conditional. This shows that in the latter case the event is anchored with respect to the matrix eventuality. Now consider the case of Eustolfo, the mediaeval knight who is convinced that his fierce foe, the treacherous Maltifò, found the Holy Graal:

(68) Eustolfo era convinto che il suo rivale, il truce Maltifò, avesse trovato il Sacro Graal. Una notte, Eustolfo sognò che un cavaliere senza macchia trovava il Sacro Graal.
Eustolfo was sure that his rival, the treacherous Maltifò, had found the Holy Graal. One night, Eustolfo dreamed that a blameless knight found(IMPF) the Holy Graal.

(69) #Eustolfo era convinto che il suo rivale, il truce Maltifò, avesse trovato il Sacro Graal. Una notte, Eustolfo sognò che un cavaliere senza macchia avrebbe trovato il Sacro Graal.
Eustolfo was sure that his rival, the treacherous Maltifò had found the Holy Graal. One night, Eustolfo dreamed that a blameless knight would find (PERF COND) the Holy Graal.

There is a contrast between the two discourses: the dream report in (68), where the imperfect is used in the last sentence, does not conflict with Eustolfo's belief that his treacherous enemy had already found the Holy Graal. The dream report with the perfect conditional, however, does create such a conflict, cf. (69). It is not only the fact that the perfect conditional locates the finding of the Holy Graal in the dreamer's future. There is the clear feeling that the conflict is due to the ascription of two contrasting attitudes to Eustolfo towards the relevant event: that it has already been accomplished by his treacherous foe, on the one hand, and that it is still available as an award for a blameless knight on the other. Hence, the report in (69)

entails an attitude by Eustolfo towards the content of the subordinate clause that is not entailed by the report in (68).[36]

These cases are different from the ones we dubbed evidential dream. A part from the lack of anchoring with respect to the utterance, there is no existence entailment:

(70) Eustolfo ha sognato che un cavaliere senza macchia ha trovato/ troverà il Sacro Graal.
Eustolfo dreamed that a blameless knight found/ will find the Holy Graal.

An utterance of this sentence contrast with utterances of both (68) and (69). With the latter, the mention of the Holy Graal does not commit the utterer to believe in the existence of the fabled relic. By uttering (70), however, the utterer is so committed.

Sentences such as (68) and (69) follow from our theory: there is a strong connection between attitudes, attitude bearers and temporal anchoring to the effect that the latter notion can be understood as the necessity to establish a link between an event and the bearer of the attitude. If no attitude is present, then there is no attitude bearer and, as a consequence, no temporal anchoring, and vice versa. The embedded perfect conditional required a connection only between the embedded event and the time of the dreamer; therefore some attitude by the main clause subject is involved.

Notice that, differently from what happens in sentences featuring ordinary propositional attitude predicates, in (69) the presence of an attitude by the subject is entirely due to the morphosyntactic properties of the embedded verbal form, and is in no way determined by the matrix predicate. It is because of the morphosyntactic properties of the embedded verb that the event is locally anchored, this way also requiring the presence of an attitude by the matrix subject.[37] On the other hand,

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36. Of course, the attitude need not be (and most probably is not) part of Eustolfo's dream. Rather, it must be the case that it arose after waking up.

37. Dream sentences with the perfect conditional exemplify the case of merely subject-oriented attitude induced by the embedded tense. We already saw that dream sentences with non-imperfect indicative tenses exemplify cases of utter-oriented attitudes similarly induced by the morphosyntactic

verbs such as *believe*, *fear*, *wish*, etc. have attitudes as part of their lexical meaning, the embedded verbal form only bearing the responsibility to suitably match such a requirement. The lack of similar lexical stipulations concerning *sognare* (dream) makes the determination of the relevant subject-oriented attitude heavily context-dependent. At least in the cases we have considered, the attitude towards the dream content arises after the dream, as a consequence of some afterthought of the dreamer. This is in line with the remark in fn.28: whatever attitude Eustolfo comes to have with respect to the content of the dream, this is not an attitude he has because he is the dreamer.

The consequence of this state of affairs is that, in the absence of appropriate background information, dream sentences with the perfect conditional are rather odd:

(71) #Una settimana fa Mario ha sognato che Carlo sarebbe partito.
A week ago, Mario dreamed that Carlo would leave.

When uttered out-of-the-blue this sentence is odd. Although it is clear that the dreamed event is presented in a future-oriented fashion, the absence of any information about the relevance of the content of the subordinate clause for the dreamer (and about the fact that the event is future-oriented) is responsible for oddness.

The facts concerning the perfect conditional in dream sentences therefore follow from our theory provided that we make room for a contextual determination of the relevant attitude of the subject. To return to the problem which we started from at the beginning of this section, the following two sentences must also differ in that by using the first one the utterer does not ascribe the dreamer any attitude towards the content of the dream, whereas he/she does so when using the second sentence:

(72) Mario ha sognato che c'era un terremoto.
Mario dreamed that there was(IMPF) an earthquake.

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properties of the tenses. The conclusion will be that the subject-oriented attitude found with non-imperfect tenses has the same origin: the morphosyntactic properties of the tense, and contextual information.

(73) Mario ha sognato che c'è stato/ ci sarà un terremoto
Mario dreamed that there has been/ will be an earthquake.

So what about the dreamer's attitude here? We suggest that one possibility is that in making his evidential claim, the speaker exploits, and ascribes to the dreamer, some form of 'responsibility', or 'authority'. Consider the case of the disciples preaching: in order for their exhortations to be effective, the dream they appeal to must be dreamed by someone who is a 'reliable' dreamer (in the relevant respects). Even if the dreamer need not subscribe to the presentation someone else is making of his/her dream, nevertheless he/she is described as if this were the case.

Notice that alleging someone's responsibility in predictions, admonitions, etc. is not an unusual fact. Thus consider a person who, without his knowing it, is taken by his community as bringing ill luck. Suppose such a person dreams that the city where he lives is destroyed by an earthquake, and that someone propagates the news by saying:

(74) Lo iettatore ha sognato che ci sarà un terremoto.
The hoodoo dreamed that there will be an earthquake.

Then, it is well possible (and was not an unusual outcome once) that the angry mob would attempt at burning down his house, and killing him. They would do so because they take him to be somehow responsible for the possible realisation of the content of his dream, given the way such a content is presented by the given utterance of (74).[38]

Be it as it may, it seems possible to conclude that if a dream report is to have an evidential meaning, the source for such an evidence, the dreamer, plays a role in supporting the plausibility of the evidential claim. In this sense, he/she is presented as bearing an attitude towards the content of the dream, so that local temporal anchoring obtains.

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38. The relevant notion of responsibility has counterfactual implications: had the hoodoo not dreamed what he did, the relevant event would not have been (felt as) possible, or very much less so.

5. Conclusions

The theory developed in this work attempts at providing a unitary framework to account for temporal dependencies both in propositional attitude sentences (with the DAR or the simple local anchoring of subjunctive clauses) and in dream contexts (including both non-anchored and anchored/evidential readings). The basic ingredients of the theory are: 1) the correlation between propositional attitudes and temporal anchoring, to the effect that the former are available if and only if the latter is; 2) the role of the complementiser system, C vs. Mood(/Agr), in triggering/ satisfying anchoring conditions, based on the τ-features attracting capabilities of C; and 3) the acknowledgement of the different morphosyntactic and interpretive status of the imperfect tense with respect to the other indicative tenses.[39]

In view of point (1) and (2), the evidential nature of non-imperfect dreams is a corollary of our theory. The temporal anchoring displayed by these contexts is, in fact, a consequence of the morphosyntactic and interpretive role of C, and of the fact that tenses such as the *passato remoto* (simple past) are 'true' tenses. Thus, local temporal anchoring, in non-imperfect dreams, is independent from requirements coming from the matrix predicate and— as discussed in § 4—is strongly context-dependent. On the other hand, given the connection between propositional attitude and temporal anchoring, and the fact that in these cases there is also temporal anchoring to the utterance, it follows that the utterer too takes an attitude towards

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39. An interesting consequence of this theory, which we will not pursue here, is that it can provide an explanation for the crosslinguistic differences concerning SOT and DAR. It is well-known, in fact, that non-SOT languages, such as the Slavic ones, lack double access readings. According to our theory, the unifying element that accounts for both SOT and DAR is the structure of the complementiser system — in particular, the presence absence of C vs. MOOD/Agr. Thus, the differences between SOT/DAR-languages, and non-SOT/non-DAR languages could be explained by hypothesising that the latter do not have a τ-features-attracting the complementiser. If correct, this would permit a principled answer to the long-standing problem of what SOT amounts to, by appealing to simple parametric differences concerning the properties of the complementiser.

the dream content. This is exactly what the data discussed in § 2.2 show: the presence of an utterer's attitude towards the content of the subordinate clause in the form of an epistemic evidential.[40]

Before concluding, let us briefly comment on the subjunctive mood.[41] The distributional data, and in particular the absence of the subjunctive in dream contexts — where anchoring is not enforced by the context — suggest, that the subjunctive is the anchored mood *par excellence*:[42]

(66) a. *Gianni ha sognato che Maria mangiasse un panino.
Gianni dreamed that Maria ate(PAST SUBJ) a sandwich.

b. Gianni credeva che Maria mangiasse un panino.
Gianni believed that Maria ate(PAST SUBJ) a sandwich.

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40. The idea that dream sentences with non-imperfect tenses are evidential suggests that, in a way, the main interpretive contribution of the sentence come from the subordinated clause. This is not a strange thing to be seen with evidentials:

(i) Dicono che Sherlock Holmes è tornato in città.
They say that Sherlock Holmes is back in town.

(ii) Sento che Maria è a Roma.
I hear that Maria is in Rome.

A sentence such as (i) is a typical example of a reportive evidential, where the evidence is some previous report, *dictum*, signalled by the matrix clause. Similarly, in (ii) the evidence is something the utterer heard or was told. In both cases, the subordinate clause provides the main proposition. As can be seen, these sentences exhibit the full range of phenomenon discussed in ¤2.2 — namely, existence entailment and substitutivity of identicals.

41. On the alleged tenselessness of the subjunctive see Giorgi and Pianesi (1999a).

42. See however fn. 1 on Modern Greek. It seems to us that it could be argued that in this language the functional projection headed by *an* overtly marks non-anchored contexts.

In other words, its morphosyntactic properties — in particular, the presence of MOOD/Agr — make such a mood unavailable in non-anchored context. These facts are problematic for any theory of mood selection that, as the ones based on the *realis/irrealis* distinction, maintains that the subjunctive is selected in irrealis (or non-veridical) contexts. Intuitively, dream contexts are on the *irrealis* side, hence we would expect (66) to be available.

Given point (1) at the beginning of this section — the relationships between temporal anchoring and propositional attitude as manifesting the relevance of a certain proposition for actuality — we suggest that the subjunctive only appears in clauses corresponding to objects of propositional attitudes, where reference to the (actual) world/ subject's location is part of the object itself. It is banned whenever this is not the case — e.g., with dreams.[43] On the other hand, the indicative is available in both contexts. Focusing on propositional attitudes contexts, the distinction between the indicative and the subjunctive cannot therefore concern the realis/ irrealis divide—irrespectively of the form and theoretical means such an opposition is stated by. Rather it must concern: a) a distinction between different grades (or, better, modes) of involvement in actuality, with the subjunctive being exploited in contexts where the involvement is significantly different from that exemplified by standard assertions;[44] and b) different morphosyntactic properties with respect to the imperfect which prevent the subjunctive to exploit the possibilities discussed in § 3.2.

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43. The relevance of the subjunctive for actuality is clear also in its uses in matrix contexts:

(i) a. Dio salvi il Re.
God save the King.

b. Ti venisse un colpo!
Lit.: To you came(SUBJ) a blow.
Might you get a stroke!

These sentences are all desideratives, thus expressing the utter wish that the described states of affairs come about.

44. Cf. Giorgi & Pianesi (1997, ch.5) where such an idea is developed to account also for crosslinguistic variations.

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On the Left Periphery of Some Romance Wh-Questions

Cecilia Poletto and Jean-Yves Pollock
University of Padua - Université de Picardie à Amiens

I. Introduction.

This article will sketch out the fine structure of the left periphery of questions as it emerges from our ongoing research on French, Bellunese and Italian wh-questions (cf. Pollock, Munaro & Poletto (1999), Poletto & Pollock (1999), (2000)), Pollock (2000).

The two basic principles that have guided our enquiry are simply stated; the first is standard in comparative work in generative grammar; it claims that the considerable variation in spell-out sequences exhibited by the wh-configurations across (those three) languages is not random; rather it can be profitably (re)analyzed as reflecting the interplay of the invariant structure of the complementizer domain (in Romance) and a small number of morphologically-based differences that are part of the primary linguistic data to which the language learners are necessarily exposed.

The second principle is more controversial; it claims, in line with Kayne's (1998) 'radical' interpretation of Chomsky's (1995), (1998) minimalist guide lines that UG does not allow for any *covert* syntactic displacement, be it feature movement.

When that radical tack is taken Remnant Movement operations are put to crucial use and replace not only much covert movement but also (many) head movement analyses in the Government and Binding tradition; postulating such Remnant Movement operations leads, we shall see, to illuminating comparative analyses of the syntax of wh- questions in three languages under study; furthermore the remnant phrases that move to the left periphery of questions will be shown to be attracted to

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semantically motivated layers in the fixed hierarchy of categories that make up the 'split' complementizer area --cf. Rizzi (1997)-- of questions in the Romance languages.

2. Bellunese vs French (first pass).

As is well-known, French has a variety of --apparent (see Pollock, Munaro & Poletto (1999),[1]-- wh-in situ questions like (1a, b, c); bare *que*, on the other hand, cannot occur in such contexts as the sharp ungrammaticality of (1d) shows:

(1) a. Tu vas où?
You're going where
Where are you going?
b. Tu as parlé à qui?
You've spoken to whom
To whom did you speak?
c. Tu pars quand
you leave when
When are you leaving?
d. *Jean a acheté que?
Jean has bought what
What did Jean buy?

In that respect Bellunese behaves quite unexpectedly: *che*, the counterpart of *que*, and the other bare wh-words *andé* 'where', *chi* 'who' and *come* 'how' *MUST* occur in sentence final position (cf. Munaro (1999)):

(2) a. Ha-tu magnà che?
have you eaten what
What did you eat?

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[1]. But see Cheng & Rooryck (2000) for an analysis of such configurations relying on covert movement of a Q-feature. See also Poletto & Pollock (in prep).

b. *Che ha-tu magnà?
what have you eaten
c. Se-tu 'ndat andé?
are you gone where
Where did you go?
d. *Andé se-tu 'ndat?
where are you gone

Sentences like (2) in Bellunese must be carefully distinguished from (1) since they show obligatory subject verb inversion, which (apparent) wh- in situ in French bans totally:

(3) *Vas-tu où?
go you where
Where are you going?

Modulo that important difference --to which we return at length in sections 7 and 8 below-- the distribution of *che* and *que* with respect to 'sentence internal/final' positions is extremely puzzling; if one took Bellunese *che* to be in a position within IP one would be hard put to explain why its French counterpart *que*, which does not appear to be any more or less ''defective'' morphologically or semantically than *che*,[2] has to move to the left periphery; in short, the morphological similarity of *que* and *che* should lead one to expect similar syntactic behavior; that reasonable expectation pairs like (1d) vs (2a) seem to falsify, unexpectedly. As Pollock, Munaro & Poletto (1999) showed, appearences are (fortunately) deceptive; one can begin to reconcile Bellunese and French wh- syntax by positing that *che* in (2a) and *andé* in (2c) *HAVE* indeed moved to the left periphery of the clause, just as French *que* visibly has in sentences like (4):

(4) a. Qu'a acheté Jean?
what has bought Jean
What did Jean buy?

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2. On ''defective'' wh-words see Munaro & Obenauer (2000), Poletto & Pollock (in prep).

b. Qu'a-t-il acheté?
what has-t-he bought?
What did he buy?

In a theory that does not countenance covert (feature) movement this conclusion is independently required by the fact noted and analyzed in Munaro (1999) that (apparent) wh- in situ configurations like (2a, c) and (5) in Bellunese are sensitive to strong and weak island effects, as (6) from Munaro (1999, chapter 1, 50-56, 74) show:

(5) a. Ha-tu parecia che?
have you prepared what?
What did you prepare?
b. Va-lo 'ndé?
goes he where?
Where is he going?
c. Se ciame-lo comé?
himself call-he how
What's his name?

(6) Strong island effects:
a. *Te ha-li dit che i clienti de chi no i-ha pagà?
to you have they told that the customers of whom not they have paid
Who have they told you the customers of haven't paid?
b. *Ho-e da telefonarte prima de 'ndar andé?
have I to phone you before of going where
Where have I to phone you before going?
Weak island effects:
c. ??Te despiàse-lo de aver desmentegà ché?
to you displeases-it to have forgotten what
What are you sorry you have forgottten?

That Bellunese *che* in (5a) is *not* in its IP internal argument position is also suggested by the following data:

(7) a. Al ghe ha dat al libro a so fradel
he to him has given the book to his brother
He gave the book to his brother
b. *Ghe halo dat che a so fradel?
to him has he given what to his brother
What did he give to his brother?
c. Ghe halo dat che, a so fradel?
to him has he given what, to this brother

(7) shows that the dative complement *a so fradel* is necessarily 'emarginated' in Bellunese *che* --also *ande, come, chi*-- questions like (7b, c), though not in statements like (7a); if *che* was in the ordinary sentence internal object position in which *el libro* in (7a) is presumably standing, such facts would be difficult to understand; (7) thus gives added support to an *overt* movement analysis of all wh-questions in Bellunese.

Accepting the (desirable) conclusion that *che, ande, chi* and *come* in (5) have indeed moved to the CP field, we are evidently forced to adopt the idea that the rest of the clause has itself moved past the 'low' Comp position in which the bare wh-words are standing to a higher layer of the left periphery; such sentences therefore involve wh-mvt of the expected variety and Remnant Movement of (some layer(s) of) IP; this conclusion goes in the direction of much recent work in Generative Grammar, e.g. Koopman & Szabolcsi (in press), Kayne & Pollock (1999), Pollock, Munaro & Poletto (1999), Pollock (2000); the much simplified derivation of a sentence like (5) in Bellunese must thus look something like (8):

(8) Input : $[_{IP}$ tu ha parecia che]
(a) Wh-movement $\Rightarrow [_{XP}$ che $_i$ X° $[_{IP}$ tu ha parecia $t_i]]$
(b) Remnant IP Movement $\Rightarrow [_{YP} [_{IP}$ ha-tu parecia $t_i]_j$ Y $[_{XP}$ che $_i$ X° $t_j]$

Step (8b) is clearly lumping together computations that must be teased apart and analyzed. That we proceed to do now.

3. SCLI in French and Bellunese.

If the previous section is correct, Bellunese seems to allow one type of Remnant movement to the left periphery that French does not; compare (9) vs (10) again:

(9) Se-tu 'ndat andé?
are you gone where
Where did you go?

(10) *Es-tu allé où?
are you gone where

We believe that appearances are again deceptive; putting aside for the moment the 'low' position of *andé* in (9) vs the 'high' position of *où* in (10) to which we return in section 8, (9) displays the subject verb inversion pattern known as "subject clitic inversion" (SCLI) common to many Romance languages; the null hypothesis is, then, that such sequences should be analyzed like their French counterparts in (11):[3]

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[3]. The inversion pattern of (9) and (11) is also present in another type of inversion construction specific to French (and Valdôtain), the so-called 'Complex Inversion' (CI) of (i):

(i) a Où Jean est-il allé?
where Jean is-he gone
Where has Jean gone?
b. Quand tout est-il tombé?
when all is-it fallen
When has everything fallen?
c. Martin mindze-të de seuppa? (Valdôtain, Aosta)
Martin eats he the soup
Does Martin eat the soup?
d. Pequè lo mèinô medze-t-i la pomma? (Valdôtain, St. Nicholas)
why the child eats-t-he the apple
Why does the child eat the apple?

(11) Où est-il allé?
where is he gone?
Where did he go?

This is strongly suggested by the fact that both SCLI in French and (apparent) wh-in situ sentences like (9) in Bellunese are restricted to root contexts:

(12) a. *Je ne sais pas (ce) qu'a-t-il acheté?
I don't know what has he bought[4]
I do not know what he bought
b. *Je ne sais pas où est-il allé
I don't know where went-he
I do not know where he went

(13) a. *No so (che) ha-lo comprà che
neg I know that has-he bought what
I do not know what he bought
b. *No so (che) se-tu 'ndat andé?
neg I know that are you gone where
I do not know where he went

(14) a. No so *che* che l'ha comprà
neg I know what that he has bought
I do not know what he bought

(i) only differs from (9) and (11) in having an additional preverbal DP subject; in particular CI is also restricted to root clauses. On the analysis to be developed below this must mean that CI too involves Remnant IP movement to ForceP as Pollock (2000) argues in detail. See note 21 below; on CI (and SCLI) in French and Valdôtain see also Kayne (1972), (1975), Roberts (1993), Laenzlinger (1998).

4. On the orthogonal question of why *que* surfaces as *ce que* in French embedded questions see Poletto & Pollock (2000), (in prep).

b. No so andé che te se ndat
neg I know where that you are gone
I do not know where he went

It thus seems highly desirable, perhaps mandatory, to suppose that the same computations to the left periphery, all restricted to root contexts, are at work in (9) and (11) in the two languages.

We adopt this view and now show, firstly, that SCLI in Bellunese and French is the reflex of *overt* (pre spell-out) computations,[5] and, secondly, that SCLI cannot be analyzed in terms of head movement, as the surface form it has in Bellunese would in itself suggest.

4. SCLI is Overt Movement.

SCLI is a wide-spread phenomenon in the Northern Italian Dialects (henceforth 'NIDs') as discussed extensively by Poletto (2000, chapter 1, section 3.2); (15) gives examples from two varieties:

(15) a. Cossa fa-lo Paduan
what does-he?
What does he do?
b. Ce fas-tu Friulian
what do-you?
What are you doing?

In Monnese SCLI obligatorily triggers "fà-support" (cf. Beninca & Poletto (1997)), in contexts in which English triggers "do-support":

(16) a. Ngo fa-l ndà
where does-he go
Where is he going?

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5. Contra Sportiche (1993), Kayne (1994), Friedemann (1997).

b. Ngo fè-t ndà
   where do you-singular go
   Where aer you going?
c. Ngo fè-f ndà
   where do you-plural go
   Where are you going?

English do-support and Monnese fa-support are strikingly similar in that they occur only in root contexts when no auxiliary or modal verbs are present and both are banned when the subject is questioned (cf. Beninca & Poletto (1997)); fa-support, unlike do-support does not occur in negative clauses, but that difference can be shown to be a consequence of an orthogonal difference between English and Romance: in Monnese in particular and Romance in general main verbs cross over the negation position –(which is in fact defined by Zanuttini (1997) as postverbal)-- while Modern English main verbs don't (cf. Pollock (1989)).

As should be clear even from this cursory summary, fa-support and do-support cry out for a uniform analysis. Beninca & Poletto (1997) provides one and shows that fa-support is indeed to be analyzed in the same terms as English do-support; now, despite the fact that there have been many different views on do-support in the literature over the last 50 years or so noone to our knowedge has ever suggested that it be analyzed as an instance of covert LF movement; if so Monnese fa-support, the shape SCLI takes in that language, is also an instance of *overt* movement to the Comp domain; it is therefore highly desirable to also view SCLI in the more usual varieties of Romance as a case of pre spellout movement to the left periphery.

The NIDs provide at least two other arguments in favor of overt movement in SCLI; in the dialect of Rodoretto di Prali it is possible to coordinate SCLI constructions and wh-structures with an overt complementizer, as in (17) (cf. Poletto (2000, Chapter 3, (21)):

(17) L'achatte-tu ou qu' tu l'achatte pa?
   it buy-you or that ut buy not
   Are you going to buy it or not?

On the well-supported assumption that coordination is always coordination of two identical phrases *l'acheta-tu* must have activated the Comp field whose

presence in the second conjunct is overtly signaled by 'qu-'; therefore SCLI in Rodoretto di Pralese must involve overt computation to the CP field.

In Fassano --the dialects spoken in the Fassa valley-- SCLI is only possible when the verb has crossed the position of a 'new information' particle that has been shown to be a CP particle (cf. Poletto & Zanuttini (2000), Poletto (2000, 46-49)):

(18) a. Olà vas-t pa?
where go you particle
Where are you going?
b. Olà pa tu vas
where particle you go
c. *Olà pa vas-t?
where particle go you
d. *Olà tu vas pa?
where you go particle

In (18a) SCLI has taken place and both the verb *vas* and the subject clitc *-t* precede the Comp particle *pa*; in (18b) SCLI inversion has not taken place --as is possible in many varieties, including colloquial French (cf. *Où tu vas? = where you go*?)-- and *pa* precedes the subject clitic and the verb; (18c) shows that *pa* cannot precede the verb and the clitic when SCLI has taken place and (18d) that the particle cannot follow them when it has not. Evidently, (18) can be explained neatly if SCLI is a computation that *overtly* displaces the verb and the subject clitic to the Comp field, more precisely to a position higher than *pa*.[6]

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6. That *pa* is a Comp particle --more precisely the specifier of a (low) Focus layer in the Comp field (cf. Poletto and Zanuttini (2000))-- is shown by the following facts: *pa* occurs after the inflected verb, which is expected given the fact that Central Rhaetoromance is a V2 language but a) higher than all adverbials located in the IP field (according to Cinque's (1999) hierarchy) as shown in (i), b) higher than an inverted subject (cf. (ii)) and c) is incompatible with lower complementizers as the interrogative *s* in embedded questions a shown by the ungrammaticality of (iii):

(i) a Al a *pa d sigy* mangé. (S. Leonardo)
SCL have pa of sure eaten

5. SCLI is not head Movement.

Since French SCLI constructions share crucial properties with their counterparts in the NIDs we conlude, fairly reasonably, that they too involve overt computations to the CP field. At the same time SCLI can be shown *NOT* to be amenable to a I°/V° head movement analysis; this somewhat paradoxical conclusion follows from Kayne's (1994) and Sportiche's (1993) analyses of the various types of non nominative clitics as heading a number of functional projections distinct from theverb's; under such analyses SCLI questions like e.g. *te l'as-t-il donné?* ('to you it has he given?'), cannot arise as a consequence of I°/V° movement, clearly; the same extends to the equivalent clitic-verb sequences in the NIDs.

As Kayne (1991) argues, the view that non nominative clitics need not be analyzed as adjoined to V is almost certainly imposed on one by examples like (19a) in literary French, (19b, c, d) --from Madame de Sévigné's *Lettres*-- in classical French, and (19e, f) in Modern Triestino and Calabrian in which the clitics are separated from the verb by various (maximal) adverbial phrases:

He has surely eaten

b *Al a *d sigy pa* mangé.
SCL has of sure pa eaten

c Al a *pa magari* bel mangé.
SCL has pa perhaps already eaten
Maybe he has already eaten

d *Al a *magari pa* bel mangé

(ii) Inier a *pa* Giani mangé la ciara.
yesterday has pa John eaten the meat
Yesterday John ate meat.

(iii) *A i m a domané *s* al n fus *pa* bel.
SCL SCL me asked if SCL neg was pa nice
He asked me whether it was nice

(19) a. Il a dû en fort bien parler
he must have of it very well spoken
He must have spoken very well of it

b. [..] elle dit qu'elle lui doit tout son bonheur, par le soin qu'elle a eu de la bien élever
she says she owes her her happiness because of the care she has had to her well bring up
She says she own her her happiness because she brought her up so well

c. [...] ils ont été affligés de ne vous point voir
they were sorry to ne you not see
They were sorry because they could not see you

d. Nous faisons une vie si réglée qu'il n'est quasi pas possible de se mal porter
we lead one life so orderly that it is almost impossible to 'se' ill bear'
We lead such an orderly life that it is almost impossible to be in poor health

e. Nol se gnanca vedi — Modern Triestino
not-it refl not-even see
You cannot even seet it

f. El me sempre disi...
he to-me always says
He always says to me...

g. Un ti manco canusciu — Modern Calabrian
Not you at all know
I do not know you at all

h. Ci propiu volia
Loc-cl really want
It was really necessary

Such examples show beyond any doubt that French, Triestino and Calabrian clitics need not/have not always adjoin(ed) to the verb. Now, if the clitics in (20),

(20) a. Pierre me l'a donné
P to me it has given

P gave it to me

b. Pierre ne lui a pas parlé
P ne to him has not spoken
P. did not speak to him

c. Il ne m'en donnera pas
he ne to me of it will-give not
He will not give it to me

d. Elle m'y conduira
she me there will-take
She will take me there

also head a projection different from that of the verb --the null hypothesis-- we clearly cannot analyze the *OVERT* --recall section 4-- computation(s) to the left periphery at work in (21) as instances I°/V° movement:

(21) a. Pierre me l'a-t-il donné?
P to me it has-he given
Did P. give it to me?

b. Pierre ne lui a-t-il pas parlé?
P ne to him hashe not spoken
Didn't P. speak to him?

c. Ne m'en donnera-t-il pas?
ne to me of it will-he give not
Won't he give it to me?

d. M'y conduira-t-elle?
me there will-she take
Will she take me there?

Additional arguments against the traditional I°/V° head movement analysis of (21) have been given in the literature; Kayne (1994) notes that claiming that clitics adjoin to the verb leaves us without an account for the fact that referential expressions are typically banned from appearing within words: compare OK a self hater vs *a(n) {it, her, you} hater. Hulk (1993, 3.3), Kayne (1994, 45), Terzi (1999, section 2) note that on the standard assumption that in Romance imperatives the

verb *does* move to some 'high' --see Terzi (1999)-- head position in the CP field, the fact that in (22a) the clitics are obligatorily stranded by the verb is in itself an argument that no verb movement has applied in SCLI sentences like (22c):

(22) a. Donne le lui!
give it to him
Give it to him!
b. *Le lui donne!
it to him give
c. Le lui donnera-t-il?
it to him will-give you?
Will he give it to her?

Hulk (1993) --also Terzi (1999) and her references-- observes further that the negative head 'ne' blocks head movement in imperatives, as (23) show:

(23) a. *Ne donne le lui pas
ne give it to him not
b. Ne le lui donne pas
ne it to him give not
Don't give it to him

and she points out that if head movement was involved in (22b, c) one would expect, everything else being equal, perfectly fine SCLI sentences like (24) to be ungrammatical:

(24) Ne le lui donnera-t-il pas?
ne it to him will-give you not
Won't he give it to him?

We conclude, then, like Hulk (1993), Kayne (1994) and Sportiche (1993) that SCLI does *NOT* involve Infl°/Verb° movement to some head position in the CP field. But our section 4 arguments prevent us from concluding that SCLI results from *covert*, post spell-out computations, as these scholars claimed.

6. SCLI is Remnant Phrasal Movement.

In order to solve this apparent paradox we need only conclude that SCLI is derived via overt *phrasal* movement to the Comp domain; *Le lui donnera-t-il?* can now be derived, as it must, if the string 'le+lui+donnera' is a constituent and moves as one to the left periphery; however, XP in (25),

(25) $[_{XP}$ le $[_{YP}$ lui $[_{ZP}$ donnera ...]]]

and object clitic + finite verb strings in general are typically *NOT* constituents; they are not in (26) for example:

(26) a. Il ne le lui donnera pas
he neg it to-him will-give not
He will not give it to him
b. Il ne m'a pas parlé
he neg to-me has not spoken
He did not speak to me
c. Je n'y suis pas allé
I neg there am not gone
I did not go there

It appears, then, that a phrasal movement analysis of SCLI --forced on us by the facts and arguments in section 5-- entails that XP in (25) and the like can only move as a constituent because the elements included in the '...' have vacated their input position at some earlier stage in the derivation; in short, any overt phrasal movement analysis of SCLI in French has to be a *Remnant* Movement analysis, as the spell-out string of Bellunese wh-questions like (9) --*Se-tu 'ndat andé?* ('are you gone where?')-- would in itself suggest. The derivations that have to be posited to yield the French sentences in (27),

(27) a. Ne le lui donnera-t-il pas?
neg it to-him will-give him not
Won't he give it to him?

b. Va-t-elle lui prêter un livre?
will she to-him lend a book
Will she lend him the book?
c. Avez-vous envoyé un livre à Paul?
have you sent a book to Paul
Did you send a book to P.?

must thus involve previous displacement of the negative phrase *pas* in (27a), of the infinitival clause *lui prêter un livre* in (27b) and of the participial phrase *envoyé un livre à Paul* in (27c) followed by Remnant Movement, as sketched in the much simplified derivations of (28):

(28) a. Il ne le lui donera$_i$ [pas [t$_i$]] ⇒ Il [pas [t$_i$]]$_j$ [ne le lui donera t$_j$] ⇒ [ne le lui donera t$_j$]$_k$ il [pas [t$_i$]$_j$ t$_k$]
b. Elle [va [lui prêter un livre]] ⇒ Elle [lui prêter un livre]$_i$ [va t$_i$] ⇒ [va t$_i$]$_j$ elle [lui prêter un livre] t$_j$]
c. Vous [avez [envoyé un livre à Paul] ⇒ Vous [envoyé un livre à Paul]$_i$ [avez t$_i$] ⇒ [avez t$_i$]$_j$ vous [envoyé un livre à Paul]$_i$ t$_j$]

7. Characterizing SCLI: French and Bellunese (second pass).

Let us try to be more precise about derivations like (28) and the various layers of the left periphery that we need if we are to give formal status to the conclusions we have just reached.

The first point to make is that our "split" Comp domain will have to contain (at least) two different positions for the (various types of) wh-phrases; this follows from our discussion of Bellunese vs French pairs like (29):

(29) a. Se-tu 'ndat andé?
are you gone where
Where have you gone?
b. Où est-il allé?

where is-he gone?

If, as we have concluded above, both sentences involve Remnant Movement of *'Se-tu 'ndat'* and *'est-il allé'* to some (ideally) identical layer(s) of the left periphery, then the chief difference between Bellunese and French will have to lie in the fact that *andé* in (29a) is standing 'low' in the structure while *où* has crossed over the position(s) to which *'est-il allé'* has been attracted on its way to a higher layer of the Comp area.

That there should be (at least) two such positions is overtly manifested in various NIDs; in Bellunese in particular, in addition to (30) and the like one can also have 'doubling structures' like (31), under semantic conditions described precisely in Munaro & Obenauer (2000):

(30) Ha-lo fat che?
what has he done what
What did he do?

(31) Cossa ha-lo fat che?
what has he done what

Similarly Monnese 'doubling' wh-questions like (32) alternate with non doubling ones like (33):[7]

(32) Ch'et fat què?
what have you done what
What have you done?

(33) Ch'et fat?
what have-you done?

Bellunese (31) and Monnese (33) thus display at spell-out the two wh-positions that we shall posit are part of the left periphery of the wh-questions of *all* the

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7. In questions without an auxiliary Monnese shows 'fâ-support', for independent reasons; see section 4 above and the references given there.

Romance languages under study; more precisely we say that (30) is an invisible instance of doubling with a null version of *cossa*, which we call "Rest(rictor)", standing in the uppermost layer of the Comp field:

(34) Rest ha-lo fat che?
what has he done what
What has he done?

We say furthermore that in Bellunese null "Rest" is a non lexical NP in a complex wh- phrase which has the structure in (35), parallel to that of Standard Italian *che cosa*

(35) [che {cossa, Rest.}]

The two wh- positions in the Comp area overtly manifested in (30), (32) and (34) we shall call Op1 and Op2, respectively.

In addition to those two positions, it can be argued that SCLI crucially involves (the more traditional) "ForceP"; this is because, as stressed above, SCLI is restricted to root contexts; on the usual view that in embedded contexts the feature checking done via (Remnant IP) movement to ForceP in root sentences is unnecessary, hence impossible by economy -- because the matrix verb or predicate suffices to identify the sentence type, its "force"--, the non existence of SCLI in embedded contexts follows if it targets Spec Force°; we thus conclude that in *Où est-il allé?, À qui parles-tu?* etc. the remnant phrase including the finite verb is indeed attracted by the [+question] feature of (root) Force°.

French SCLI questions like *Où est-il allé?* wear on their sleeves the fact that the Remnant phrase checking the [+question] feature has had all its lower portion removed, as indicated in (28). As for that lower portion itself, we claim that it moves to yet another layer of the Comp domain and that the nominative subject clitic does too, to yet another one; in order to make things slightly more perspicuous, we give those two extra layers the somewhat arbitrary, though fairly transparent, labels "TopP" and "GroundP", respectively.

Adding up and ordering the five layers we have now introduced we obtain the full(er) structure in (36):

(36) $[_{Op2P}$ Op2° $[_{ForceP}$ Force°] $[_{GroundP}$ G° $[_{TopP}$ Top°$[_{Op1P}$ Op1° IP]]]]]]

We shall come back to the independent syntactic justification for TopP and GroundP in the next section; the semantics associated with each of the five layers in (36) we will discuss as we proceed and come back to in the concluding section of the paper.

To illustrate how the system works in French consider the derivation of *Où est-il allé?* ('Where is he gone?'); it would go as follows:

(37) Input : [il est allé où]

(a) Merge Op1° and IP and attract 'où' to spec Op1P ⇒
$[_{Op1P}$ où$_i$ Op1° [il est allé t_i]]

(b) Merge TopP and Op1P and attract the participial phrase[8] [allé t_i] to spec Top ⇒
$[_{TopP}$ [allé t_i]$_j$ Top° $[_{Op1P}$ où$_i$ Op1° [il est t_j]]]

(c) Merge G° and TopP and attract 'il'[9] to spec G ⇒
$[_{GP}$ il$_k$ G° $[_{TopP}$ [allé t_i]$_j$ Top° $[_{Op1P}$ où$_i$ Op1° [t_k est t_j]]]]

(d) Merge Force and GP and attract IP to spec Force° ⇒
$[_{ForceP}$ [t_k est t_j]$_l$ F° $[_{GP}$ il$_k$ G° $[_{TopP}$ [allé t_i]$_j$ Top° $[_{Op1P}$ où$_i$ Op1° t_l]]]]]

(e) Merge Op2P and ForceP and attract 'où' to Spec Op2° ⇒
$[_{Op2P}$ où$_i$ Op2° $[_{ForceP}$ [t_k est t_j]$_l$ F° $[_{GP}$ il$_k$ G° $[_{TopP}$ [allé t_i]$_j$ Top° $[_{Op1P}$ t_i Op1° t_l]]]]]]

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[8]. It is not just participial phrases that are attracted to TopP in SCLI constructions but all the elements following the main finite verb; taking our clue from the hierarchy of functional projections in Cinque (1999) we arrive at the idea that what is moving to TopP in SCLI is an habitual aspectual phrase (see Cinque (1999, 130)).

[9]. Note that *il* is moving as a phrase here; if nominative clitics are heads in the sense of Cardinaletti & Starke (1999) --contrary to what they say concerning nominative clitics-- this may mean that what is attracted to GP is a Kaynian or Sporticheian clitic phrase (cf. Kayne (1972), Sportiche (1993)) whose head is *il* and whose specifier is phrasal pro; if nominative clitics are phrases, then *il* moves as one, evidently.

A major property of (37) is that it has no head movement at all; as we noted above the root vs non root asymmetry of SCLI which in much current work is taken to be a reflex of (I° to C°) head movement we analyze as a consequence of the fact that the [+question] feature of Force° is checked 'lexically' by the main predicate in embedded contexts: the main sentence predicate « types » the subordinate interrogative clause.

Going back to Bellunese, we can advantageously say that the derivation of apparent wh- in situ SCLI sentences like (29) -- *Se-tu 'ndat andé*?-- is identical to that shown in (37) with one essential difference and one minor one; the essential difference lies in the fact that Bellunese, unlike French, has ''doubling wh-phrases'' like [andé Rest] [che Rest] etc. parallel to [che cos(s)a];[10] we say that in Bellunese Spec Op2P attracts the null Rest., just as *cosa* is so attracted in Standard Italian or as Bellunese *cossa* is in doubling structures like (38)

(38) Cossa ha-lo fat che?
what has he done what
What has he done?

In that perspective, then, (29) is derived as shown in (39), which is identical in all relevant respects to the derivation of (38) or of its null Rest. variant *'ha-lo fat che?'*[11]

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[10]. By analyzing 'where', 'how(many)' as taking a null restrictor complement, we are following Munaro (1999 note 14, 227-229),

[11]. The conditions ruling the *cossa* vs null Rest. alternation have still to be fully worked out. Munaro and Obenauer (1999) show that *cossa* must be used when the question is not 'neutral', in some relevant dimension, e.g. when some form of 'surprise' is intended or when the wh-item has the special interpretation which they call '' why-like'', which is restricted to *cossa*. If the 'special' interpretations found when *cossa* is used are a reflex of a higher position of the wh-item, as Munaro and Obernauer (1999) claim, the distinction between *cossa* and our null Rest. could be tied to the different movement path of the two elements, and ultimately to the fact that *cossa*, though not Rest., can check 'higher' features in the Comp domain.

(39) Input : [tu sé 'ndat [andé Rest.]]

(a) Merge Op1° and IP and attract [andé Rest.] to spec Op1P ⇒
$[_{Op1P}$ [andé Rest.]$_i$ Op1° [tu sé 'ndat t_i]]

(b) Merge TopP and Op1P and attract the participial phrase [ndat t_i] to spec Top ⇒
$[_{TopP}$ [ndat t_i] $_j$ Top° $[_{Op1P}$ [andé Rest.]$_i$ Op1° [tu sè t_j]]]

(c) Merge G° and TopP and attract 'tu' to spec G ⇒
$[_{GP}$ tu_k G° $[_{TopP}$ [ndat t_i] $_j$ Top° $[_{Op1P}$ [andé Rest]$_i$ Op1° [t_k sèt t_j]]]]

(d) Merge Force and GP and attract IP to spec F° ⇒
$[_{ForceP}$ [t_k sè t_j] $_1$ F° $[_{GP}$ tu_k G° $[_{TopP}$ [ndat t_i] $_j$ Top° $[_{Op1P}$ [andé Rest]$_i$ Op1° t_1]]]]]

(e) Merge Op2P and ForceP and attract Rest. to Spec Op2° ⇒
$[_{Op2P}$ Rest.$_m$ Op2 $[_{ForceP}$ [t_k sè t_j]$_1$ F° $[_{GP}$ tu_k G° $[_{TopP}$ [ndat t_i]$_j$Top° $[_{Op1P}$ [andé t_m]$_i$ Op1° t_1]]]]]

The 'minor' difference has to do with the fact that Bellunese, unlike French, has a special class of non assertive clitics which differ morphologically and distributionally from assertive clitics across the verbal paradigm. Table 1 gives the morphology of the two classes of clitics:

Table 1:	1 pers	2 pers.	3 pers.	1 plur.	2 plur.	3 plur.
Ass.cl.	/	te	al/la	/	/	i/le
Non ass.cl.	/	tu	lo/la	e	o	li/le

Let us capitalize on the fact that the non assertive paradigm is morphologically somewhat "heavier" than the assertive one and let us claim that the former are merged in the specifier of Agrs, while the latter are the spellouts of Agrs°, i.e. "real" clitic heads, as in many other NIDs; we say further that non assertive clitics are necessarily [+ground] in the lexicon. When the GroundP layer is merged in the left periphery, it will have to attract a [+ground] element; if it fails to, the derivation crashes; this will ultimately require that the numerations yielding (SCLI) questions in Bellunese merge the non assertive clitics; even if assertive clitics were also optionally [+ground] in the numeration they would still fail to be attracted to

GroundP on the view that heads *NEVER* move to the Comp field; conversely, if non assertive weak pronouns are part of a numeration and the GroundP is not merged in the left periphery, as it presumably isn't in (many) non interrogative sentences, the [+ground] feature of non assertive clitics will fail to be checked, also causing the derivation to crash; this will thus ban them in assertive contexts, as Bellunese requires; (Standard) French, on the other hand, has a single set of (weak) nominative pronouns that may optionally bear [+ground]; when GP is merged some [+ground] element must be attracted to Spec Ground to delete an uninterpretable feature; French nominative pronouns will then have to be [+ground] in precisely those cases.[12]

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[12]. What we are saying here is that nominative clitic heads, like clitics in general, never move out of their head positions: they are 'frozen in place' once they have reached them; as a consequence they can only be displaced further up in the structure as part of a bigger phrase, as object clitics are in Remnant IP movement; put slightly differently, clitic movement to the CP domain is never possible because clitic movement can only be the syntactic analogue of morphological processes which only concern IP internal functional projections like AGR, Tense, neg, (clitic) voice etc..
French and Valdôtain SCLI and CI differ from Bellunese SCLI in having an obligatory '-t-' morpheme precede third person clitics, as in (i):

(i) a Où (Marie) va *(-t-) elle aller?
where (Marie) will-t- she go?
Where will she/Marie go?
b Où va *(-t-) il aller?
where will-t- he go
Where will he go?

As Poletto (2000) and Pollock (2000) show, the standard analysis of '-t' as an epenthetic consonant is falsified by the data in (i),

(i) a Ven-lo-li? (Morgeux, Provençal)
come-interr marker-they
Are they coming?
b Ven-lo-lou? (Morgeux, Provençal)

Let us now consider SCLI sentences with 'D-linked' wh-phrases in Bellunese; (40) gives the relevant paradigm:

(40) a. Quanti libri à-tu ledest?
how many books have-you read
How many books did you read?
b. Che vestito à-la comprà?
what dress has she bought
Which dress did she buy?
c. Con che tozàt à-tu parlà?
with what boy have you spoken
Which boy did you talk to?
d. *Ha-tu ledest quanti libri ?
have-you read how many books
e. *Ha-la comprà che vestito ?
has she bought what dress

(40) does not differ from (41) in French,

(41) a. Combien de livres as-tu lus?
how many books have-you read

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come-interr marker-she
Is she coming?

from Morgeux, a Provençal dialect; in that dialect, Standard French '-t-' surfaces as '-lo' but its insertion cannot be a purely PF phenomenon since neither *-li* (they) nor *-lou* (she) are in need of an epenthetic consonant.

Like Pollock (2000) we shall hypothesize that '-t-' in French and '-lo' in Morgeux have syntactic import and are interrogative morphemes in main clause questions. More precisely we follow much traditional work in claiming that French '-t-' and Morgeux 'lo' are "conjugaison interrogative" markers, [+interrogative] morphemes merged as heads in Force°; on our derivations, '-t-' will thus end up to the immediate left of the subject clitics and the immediate right of the finite verb; since those "conjugaison interrrogative" morphemes play no part in the rest of this paper we shall ignore that important aspect of the SCLI phenomenogy here.

How many books did you read?

b. Quelle robe a-t-elle achetée?
what dress has she bought
Which dress did she buy?

c. Avec quel garçon as-tu parlé?
with what boy have you spoken
Which boy did you talk to?

d. *As-tu lu combien de livres?
have-you read how many books

e. *A-t-elle acheté quelle robe?
has she bought what dress

and the null hypothesis should be that all such sentences are derived in the same way; granted the invariant left periphery in (36) and the computations it triggers, one can arrive at that desirable conclusion fairly easily; the derivation of the sentences in (40) is identical to (37), *modulo* the lexical choices; that of (40a), for example, goes as follows:

(42) Input : [tu à ledest [quanti libri]]

(a) Merge Op1° and IP and attract [quanti libri] to spec Op1P ⇒
$[_{Op1P}$ [Quanti libri]$_i$ Op1° [tu à ledest t_i]]

(b) Merge TopP and Op1P and attract the participial phrase [ledest t_i] to spec Top ⇒
$[_{TopP}$ [ledest $t_i]_j$ Top° $[_{Op1P}$ [quanti libri]$_i$ Op1° [tu à t_j]]]

(c) Merge G° and TopP and attract 'tu' to spec G ⇒
$[_{GP}$ tu_k G° $[_{TopP}$ [ledest $t_i]_j$ Top° $[_{Op1P}$ [quanti libri]$_i$ Op1° [t_k à t_j]]]]

(d) Merge Force and GP and attract IP to spec F° ⇒
$[_{ForceP}$ [t_k à $t_j]_l$ F° $[_{GP}$ tu_k G° $[_{TopP}$ [ledest$_i]_j$ Top° $[_{Op1P}$ [quanti libri]$_i$ Op1° t_l]]]]]

(e) Merge Op2P and ForceP and attract Wh-phrase to Spec Op2° ⇒
$[_{Op2P}$ $_{Op1P}$ [Quanti libri]$_i$ Op2 $[_{ForceP}$ [t_k à $t_j]_l$ F° $[_{GP}$ tu_k G° $[_{TopP}$ [ledest $t_i]_j$ Top° $[_{Op1P}$ t_i Op1° t_l]]]]]

At step (e) no (null) 'Rest(rictor)' attraction to Spec Op2P is possible since wh-

phrase *quanti* has a lexical complement *libri*; one might still ask why *libri* or *vestito* in (39) couldn't move to Op2P the way the null Rest. or its lexical counterpart *cossa* in (31) do, yielding totally ungrammatical sentences like (43):

(43) a. *Libri à-tu ledest quanti?
books have you read how many
How many books did you read?
b. *Vestito à-la comprà che?
dress have you bought what?
Which dress did she buy?

(43) would be excluded if Op2P only attracted "abstract" domain restrictors. Let us say, as a first approximation, that the non lexical "Rest." and its "deficient" -- see Munaro & Obenauer (2000)-- opposite number *cossa* qualify unlike fully specified lexical items like *libri*; we claim, a little more precisely, that what counts as the appropriate restrictor in the displaced *quanti libri* in (40a) is a (non lexical) 'quantity phrase'; in short quanti libri = « Wh-quantity (book) »; similarly in *che vestito* in (40b) we say that the restrictor is a non lexical 'token phrase'; che vestito = « wh-(token)vestito » etc.[13]

Following this guide line, let us now raise the further question of why such syntactic functional positions couldn't host a non lexical "Restrictor" of the required type the way the null counterpart of *cos(s)a* does; if furthermore such null restrictors were attracted to Op2P the way they are in (39) the ungrammatical (40d, e) --**à-tu ledest quanti libri? *à-la comprà che vestito?*-- would be incorrectly derived.

Derivations of this type would obtain if the null Q or D restrictors were extractable from within a structure in which they have a *lexical* complement; but pied piping is obligatory in all such cases: only the "tail" of a syntactic constituent can under certain conditions be extracted from that constituent without pied-piping

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[13]. This is tantamount to saying, as Katz and Postal (1964) did thirty six years ago, that 'what book' is really 'Wh-some book', 'which book', 'Wh-the book' etc., on the assumption that what we informally call 'quantity' and 'token' in the text are syntactically encoded in functional projections in the DP, as a (specifier of) Q(P), Det(P) or other functional layers in the DP.

the rest; this will suffice to account for the ungrammaticality of (40d, e) under the hypothetical derivation entertained here; put another way, although constituents can be discontinuous they cannot be "scattered".

One might still ask why the complex "null restritor+{libri, vestito}" couldn't itself be extracted from within the wh-phrase, yielding once again ungrammatical strings like **libri à-tu ledest quanti? * vestito à-la comprà che?*. It is worth stressing at this point that Bellunese does have sentences that it is very tempting to analyze along such lines; in that dialect bare wh-phrases like *qual* (which) and *quanti* (how many) can appear in sentence initial position or in (apparent) sentence internal position (cf. Pollock, Munaro & Poletto (1999, (47)), Munaro (1999)). This is illustrated in (44):

(44) a. Qual avé-o ciot?
which have you taken
Which one did you take?
b. Avé-o ciot qual?
have you taken which
c. Quant avé-o laorà?
how much have you worked
How long did you work?
d. Avé-o laorà quant?
have you worked how much

In our terms this means that *qual* and *quant* can behave like full DPs of the *quanti libri* type or like the bare wh-words *che, ande, chi, come*; if so (44b) and (44d) must have two non lexical "Restrictors" in the highest layer of their left periphery, as the spell-out parses in (45) sketch:

(45) a. $[_{Op2P}$ $Rest_m$ Op2° $[_{ForceP}$ $[$ t_k avé $t_j]_l$ F° $[_{GroundP}$ o_k G° $[_{TopP}$ [ciot $t_i]_j$ Top° $[_{Op1P}$ [qual $t_m]_i$ Op1° t_l]]]]]
b. $[_{Op2P}$ $Rest_m$ Op2° $[_{ForceP}$ $[$ t_k avé $t_j]_l$ F° $[_{GroundP}$ o_k G° $[_{TopP}$ [laora $t_i]_j$ Top° $[_{Op1P}$ [quant $t_m]_i$ Op1° t_l]]]]]

"$Rest._m$" in (44a, b) must be a "token" phrase, and a "quantity" phrase, respectively, rather than the invisible *cossa* restrictor of strings like *ha-lo fat che?*.

We believe that this may optionally obtain in (45a) because the final consonant in *qual* is an (optionally) incorporated definite determiner; when this takes place *qual* is comparable to French *(le)quel* and functions like a pronominal binding a null [$_{NP}$ pro] variable which provides the 'token' restrictor that *qual* needs, our (informal) "Rest." in (45a). When no such definite determiner incorporation takes place *qual* is really to be analyzed as [$_{QP}$ Qu(a)- [$_{DP}$ l [$_{NP}$ Rest.]]] and pied piping of the null restrictor to Op2P is then required, yielding (44a); we claim that this is because (some minimalist version of) subjacency makes it impossible to extract Rest. across DP and QP; we note in passing that what this says of *-l* agrees fairly well with Vanelli (1992) which shows that the definite article in standard and Northern Italian is (our optionally incorporated) *-l* whose vocalic neucleus in other contexts is epenthetic.

As for (44d), we posit that in such cases *quant* can optionally take a null (measure) PP complement --as it does quasi overtly in *de'sti libri, ghen'avé-o ledest quanti*? (of these books of them have you read hown many?'); it is that null PP that counts as the null quantity Restrictor in "*quant* in situ" derivations like (45b); when that reanalysis fails to obtain, the whole [$_{QP}$quant [$_{NumP}$ ø [$_{NP}$ Rest.]]] must be pied piped to SpecOp2P, as in (44a, c); again this is because extracting Rest. alone would violate (some minimalist version of) subjacency.

Before we can conclude our analysis of (44), we still have to say why a derivation in which the constituent [$_{NumP}$ ø [$_{NP}$ Rest.]], headed by a (null) head --sometimes overtly manifested, as in quanti-- would be extracted from within the wh- phrase is excluded; what we have said so far isn't enough since an appeal to (some form of) subjacency could not be made. Our view is that such a derivation would yield an incorrect input to the PF component just as the corresponding displacement of [$_{DP}$ l [$_{NP}$ Rest.]] in (44b) would; the string **lavé-o ciot qua?* is ungrammatical.

If this is on the right track we can say that PF convergence and (some minimalist version of) subjacency converge to require pied piping of the whole wh-phrase to Op2P in (40a, b, c) in Bellunese. Wh- "stranding" as in (44b, d) seems restricted to cases in which the complement of *qual* and *quant(i)* are phonetically null.

We can now conclude that Bellunese speakers analyze wh-questions like (40) exactly as French speakers analyze (41), surely the best analysis. In neither language can attraction of a restrictor to Op2P yield a well-formed output unless pied piping of the rest of the wh phrase takes place; it appears, then, that the massive spellout differences between French and Bellunese with which we started follow as a

consequence of our invariant (36) and the existence of "doubling" wh-phrases like (38) in Bellunese and their non existence in French.[14]

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[14]. Next to that of Bellunese, Monnese examples like (i) (=(32)-(33) in text above) show that another doubling pattern exists

(i) a Ch'et fat què? (what have you done what?)
b Ch'et fat?

In (1b), as in standard Italian *Cosa* questions like (iiia), the element that has no phonetic shape at spellout is the qu- element in Op1 rather than the restrictor in Op2. It thus seems clear that some Romance varieties may fail to lexically express one of the two elements in (iia):

(ii) [Ch- NP]

Bellunese lexically realizes *ch-* and may fail to realize NP; Italian, Friulian and Paduan in sentences like (iii)

(iii) a Cosa ha fatto?
what has done
What did he do?
b Cossa fà-lo? Paduan
what does-he
What does he do?
c Ce mangia-l? Friulian
what eats-he
What does he eat?

fail to lexicalize ch- but always lexicalize the NP restrictor, just as Monnese does; Written Italian differs from Monnese and Bellunese in that when both *ch-* and NP are lexically expressed they obligatorily move as a unit to Op2P: *che cosa ha fatto?* vs **Cosa ha fatto che*. In Monnese sentences like (ia) and Bellunese (38) on the other hand no such pied piping is obligatory (see text above); one could in fact posit that Standard Italian, Friulian and Paduan "strand" their non lexical ch-, i.e. that (iiia) should be analyzed as in (iv):

(iv) $[_{NP}$ Cosa$]_i$ ha pro fatto $[_{QP}$ ø t_i]

where ø = null *ch-*; if this were correct one would of course want to explain why the "truncated" DPs discussed in connection with Bellunese (44b, d) are only available in Standard Italian, Friulian and Paduan when the QP layer of ch- phrases is phonetically null. Alternatively, of course, one might want to stick to a more conventional analysis in which no stranding of the null ch- phrase is involved in such sentences and where the restrictor movement to Op2P pied-pipes the whole ch- phrase in all cases; the spellout parse of (iiia), for example, would then be (v):

(v) $[_{QP}$ ø $[_{NP}$ Cosa$]]_i$ [ha pro fatto t_i]]

The question of the status of *ce que* questions like (vi) in French,

(vi) Je ne sais pas ce qu'il fera
I know not ce that he will do
I do not know what he will do

might be reconsidered in this light. One might claim for example that *ce que* consists of *ce*, the French counterpart to *ch'* in Monnese and *cos(s)a* in Italian/Bellunese followed by *que*, the lexicalization of Force°. If so exclamative like (vii) and (viii) might then be analyzed as containing a lexical or non lexical *ch'/cosa/ce*

(vii) Ce qu'il est bête!
ce that he is silly
How silly he is!

(viii) Qu'il est bête!
that he is silly
How silly he is!

Alternatively, *ce que* in (vi) and (vii) could be the viewed as the counterpart of *che cossa* plus additional movement of *ce* to some slot in the left periphery of the DP followed by pied piping of the whole constituent to Comp, again because of (some version of) subjacency. Under the first alternative

8. Another Instance of Remnant Movement : French Stylistic Inversion.

Before we can deal with Italian wh- questions, we need to introduce and briefly discuss another type of construction, 'Stylistic Inversion' (SI) sentences like (46) in French:

(46) a. Où est allé Jean?
where has gone Jean
Where has Jean gone?
b. À qui a téléphoné Jean?
to whom has phoned Jean
Who did Jean phone?

SI sentences share with SCLI the fundamental property that their subjects occur in a non canonical, displaced positition; in SI, though not in SCLI, that non canonical position is made licit by (certain types of (local)) wh-phrases (cf. Kayne & Pollock (1979), (1999)); thus, for instance (46) contrasts sharply with (47):

(47) a. *A Paris est allé Jean?
to Paris is gone Jean
Did Jean go to Paris?
b. *A téléphoné Jean?
has telephoned Jean
Has Jean phoned?
c. Y est-il allé?
there-is-he gone
Did he go there?

French, like Bellunese, Monnese and Italian would also have the option not to lexicalize ch-/qu-; under the second, it would always lexicalize qu-; in any case French only allows fleeting manifestations of a lexical restrictor of the *cos(s)a* variety, as in (vi) and (vii); on how best to analyze *que* in *Que fait-il?* and the ungrammarticality of **qu'il fait?* see Poletto & Pollock (in prep).

d. A-t-il téléphoné?
has he telephoned
Has he phoned?

SCLI and SI contrast in many other respects (cf. Kayne (1972)); to mention just two other well-known differences, SI is not restricted to root contexts, unlike SCLI, as the pair in (48) shows:

(48) a. Je ne sais pas quand partira Jean
I know not when will-leave Jean
I do not know when Jean will leave
b. *Je ne sais pas quand partira-t-il
I know not when will-leave-t-he
I do not know when he will leave

and the postverbal subject of SI sentences must occur in post participial or post infinitival position, which the postverbal subject clitic in SCLI cannot do:

(49) a. Où croit-il être?
where thinks-he (to) be
Where does he think he is?
b. *Où croit Jean être?
where thinks Jean (to) be
Where does Jean think he is?
c. Où a-t-il été?
where has he been
Where has he been?
d. *Où a Jean été?
where has Jean been
Where has John been?

(50) a. *Où croit être il?
where thinks (to) be he

b. Où croit être Jean?
   where thinks (to) be Jean
   Where does Jean think he is?
c. *Où a Jean été?
   where has Jean been
d. Où a été Jean?
   where has been Jean
   Where has Jean been?

Despite these major differences SI and SCLI share one important property: they are both instances of Remnant phrasal movement to the IP field. That that is how SI should be analyzed has been argued for at length in Kayne & Pollock (1999) -- henceforth K&P-- in ways that we cannot go into in any detail here; we shall be content to mention two important properties of SI and its spell-out structure; on K&P's analysis, the postverbal subject of SI has been attracted to the left periphery and is thus structurally 'high', rather than 'low', as hypothesized in many past analyses, e.g Kayne & Pollock's (1979); furthermore that 'high' position is a topic-like position; these two claims are supported by a number of facts, among which the following four:

Firstly, like preverbal subjects but unlike direct objects 'de NP' ('of NP') postverbal subjects are excluded in SI --cf. e.g. *Peu de linguistes nous ont critiqués* (few linguists have criticzed us) vs **de linguistes nous ont peu critiqué* ('of linguists us have few criticized'), **le jour où nous ont peu critiqués de linguistes* ('the day when us have few criticized of linguists') vs *J'ai peu critiqué de linguistes* ('I have few criticized of linguists').

Secondly, postverbal subjects in SI, like preverbal subjects and unlike objects, cannot give rise to subnominal 'en' extraction (on which see Pollock (1998); compare: *J'en ai critiqué trois* ('I have critized three') vs **Le linguiste qu'en ont critiqué trois* ('the linguist that of them have criticized three'), **trois en ont critiqué ce linguiste* ('three of them-have criticized this linguist').

Thirdly, postverbal subjects in SI resist long distance 'pas' (neg) quantification, unlike objects and like preverbal subjects; compare: **Quel livre n'ont pas lu de linguistes?* ('what book neg. have not read of linguists'), **De linguistes n'ont pas lu ce livre* ('Of linguists have not read this book') vs *Je n'ai pas vu de linguiste* ('I neg have not seen of linguist').

Finally, the 'high' subject position of the postverbal subjects is shown to be a Topic-like position by the 'anti-indefiniteness' effect at work in SI, first noted by Cornulier (1974); compare: **Quel gâteau a mangé quelqu'un?* ('what cake has eaten someone') **Quel article critiquera quelqu'un?* ('what article will-criticize someone?'); since the postverbal subject in SI is by hypothesis in (a topic position in) the left periphery, this anti-indefiniteness effect can be seen in same light as the unfelicitousness of, say, **Quelqu'un il a critiqué mon article* ('someone he has criticized my article'), **Quelqu'un il a mangé le gâteau* (*someone he has eaten the cake'), although the CLLD position of such sentences cannot be equated with that of SI subjects; SI subjects, unlike CLLD subjects, can be quantified subjects like *personne* compare: *La personne à qui n'a parlé personne c'est Jean* ('the person to whom has spoken noone vs **Personne, il n'a parlé à Jean* (Noone, he neg has spoken to Jean)

Summarizing, the DP subject in SI is attracted by a topic feature to the left periphery; the (remnant) IP crosses over TopP on its way to a higher position in the CP field; it is *NOT* targetting ForceP, however, unlike SCLI; this is shown, as already stressed, by the fact that SI is optional in subordinate clauses; furthermore IP in SI does not 'strand' its infinitival or participial phrases, as pairs like (48) and (49) show.

In part taking advantage of the homophony between the 'GroundP' introduced in the previous sections and K&P's (more abstract) 'GP', we now attempt to tie some of the respective properties of Remnant IP movement in SCLI and SI to a difference in the positions that IP and their subjects target in the two constructions; on our section 7 analysis of French and Bellunese SCLI the nominative weak pronouns target the GroundP layer of the left periphery and the participial, infinitival complements of the finite verb (see note 8), target a Topic layer; in SI, on the other hand, we say with K&P that the DP subject targets a topic layer while the IP itself targets the Ground layer.

If this is so, 'ForceP' plays no part in SI Remnant IP movement; assuming it is obligatorily present in main root questions, as the invariant structure of the left periphery in (51) (= (36) above) would lead one to assume,

(51) $[_{Op2P}$ Op2° $[_{ForceP}$ Force°] $[_{GroundP}$ G° $[_{TopP}$ Top°$[_{Op1P}$ Op1° IP]]]]]]

we conclude that in French the wh-phrases themselves can --and therefore must--

check the interrogative force feature in root SI questions.

On this analysis, then, the derivation of sentences like (46a) is (52):

(52) Input : [$_{IP}$ Jean est allé où]

(a) Merge Op1° and IP and *où* movement to Op1P ⇒
[$_{Op1P}$ où$_i$ Op1° [$_{IP}$ Jean est allé t$_i$]]

(b) Merge Top° and Op1° and attract *Jean* to TopP ⇒
[$_{TopP}$ [Jean]$_j$ Top° [$_{Op1P}$ où$_i$ Op1° [$_{IP}$ t$_j$ est allé t$_i$]]]

(c) Merge Ground and TopP and attract (Remnant) IP movement to GroundP ⇒
[$_{GrounP}$ [$_{IP}$ t$_j$ est allé t$_i$]$_k$ G° [$_{ToPP}$ [Jean]$_j$ Top° [$_{Op1P}$ où$_i$ Op1° [$_{IP}$ t$_k$]]]]

(d) Merge Force° and GroundP and attract *où* to Spec Force ⇒
[$_{ForceP}$ Où$_i$ Force° [$_{GroundP}$ [$_{IP}$ t$_j$ est allé t$_i$]$_k$ Ground° [$_{TopP}$ [Jean]$_j$ Top° [$_{Op1PP}$ t$_i$ Op1° [$_{IP}$ t$_k$]]]]]

(e) Merge Op2 and Force and attract *où* to Spec Op2P ⇒
[$_{Op2P}$ Où$_i$ Op2° [$_{ForceP}$ t$_i$ Force° [$_{GroundP}$ [$_{IP}$ t$_j$ est allé t$_i$]$_k$ Ground° [$_{TopP}$ [Jean]$_j$ Top° [$_{Op1PP}$ t$_i$ Op1° [$_{IP}$ t$_k$]]]]]]

We cannot even begin to do justice to the extremely complex empirical properties of SI sentences here; three remarks are nevertheless in order; Firstly, if the fully acceptable wh-less cases of subjunctive triggered SI and the (far) more marginal indicative ones dealt with in part II and III of K&P can be integrated in this general perpective, this analysis would give us an immediate and principled account, different from K&P's, of why SI, but not SCLI, is typically ''triggered'' by (local) wh-phrases: only when a Force checking phrase is present can the requirements of checking theory be met in the CP field of questions; wh-phrases have that ability, unlike topicalized elements; this immediately accounts for (53) vs (54) (= (46)-(47) above):

(53) a. Où est allé Jean?
where has gone Jean
Where has John gone?

b. À qui a téléphoné Jean?
to whom has phoned Jean
Whom did John phone?

(54) a. *À Paris est allé Jean?
To Paris is gone Jean
Has John gone to Paris?
b. *A téléphoné Jean?
has telephoned Jean
Has Jean phoned?

Since, on the other hand, Remnant IP movement accomplishes that task in SCLI no such additional checking of the force feature need take place, whence the acceptability of (55):[15]

(55) a. Est-il allé à Paris?
is he gone to Paris
Has he gone to Paris?
b. A-t-il téléphoné?
has he phoned

Secondly, derivations like (52) claim that (Remnant) IP is checking a Ground feature; suppose, reasonably enough, that for an IP to have that ability all its constituents must also be [+ground]. Assuming only clitic pronouns,[16] variables, quantifiers, quantified DPs and idioms can be so characterized, we could begin to give some intuitive content to the notion 'lexical argument' of K&P's principle (169) --from Koopman and Szabolcsi (in press)-- repeated in (56),

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[15]. This analysis of pairs like (54) vs (55) presupposes that no (subpart of the remant) IP in Spec, Ground in SI can be attracted further up to check the Force feature in SI; we hold that remnant phrases are 'frosen in place' once they have reached their target.

[16]. Only *non assertive* clitics in Bellunese, see discussion of table 1 above.

(56) IP preposing results in a violation if IP contains a lexical argument.

and account for the following facts and contrasts --all from K&P:

(57) a. Depuis quelle heure ont faim les enfants?
since what time have hunger the kids
Since when are the kids hungry?
b. À quelle pièce donne accès cette clé?
to what room gives access this key
Which room does this key give acces to?
c. Quand ont pris langue Paul et Marie?
when have taken tongue P & M'
When did P & M discuss the issue?

(58) À qui l'a montré Jean-Jacques?
to whom it has shown J-J
To whom did J-J show it?

(59) Qu'a dit Jean?
what has said J
What did Jean say?

(60) a. La fille à qui a tout dit Jean-Jacques
the girl to whom has everthing told J-J
the girl to whom J-J said everything
b. La fille à qui n'a rien laissé sa grand'mère
the girl to whom neg. has nothing left her grandmother
The girl to whom her grandmother left nothing
c. La fille à qui laissera sûrement quelque chose sa grand'mère
the girl to whom will-leave surely something her grandmother
The girl to whom her grandmother will surely leave something

(61) *À qui a donné ce livre Jean?
to whom has given that book J
To whom did Jean give this book?

In (61) the R-expression *ce livre* is by hypothesis *NOT* [+ground], so IP cannot be either and it fails to check the ground feature of the left periphery, causing the derivation to crash. In (57) through (60), on the contrary IP does contain only (lexical) [+ground] elements, so the derivations converge.[17] [18]

Thirdly, wh-phrases like *où* on our analysis are 'wild cards' in that they not only check Op1 and Op2 features, but also a [+question] Force feature; granted this, a

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[17]. In acceptable cases of SI like (i) [-ground] constituents like *à Paul* or *à Marie* are extracted -- either pied piped by wh-movement to Op1P, or topicalized (cf. K&P)-- previous to IP movement to GP:

(i) a Quel livre a donné Jean à Paul?
which book has given Jean to Paul
Which book did Jean give to Paul?
b Qu'a donné à Marie cet homme?
what has given to Marie this man?
What did this man give to Marie?

As K&P show, direct objects like *ce livre* cannot undergo either wh-pied piping or topicalization, whence (61). Note that our reinterpretation of (56) also provides an account of why the [-ground] DP subject *must* topicalize out of IP in SI.

[18]. On Pollock's (2000) analysis of French Complex Inversion sentences like (i)

(i) Quand Pierre a-t-il téléphoné à Marie?
when Pierre has he phoned to Marie
When did Pierre phone Marie?

Remnant mvt has taken place, carrying along the [-ground] subject *Pierre* and the finite verb *a* to the left periphery. Since in such cases, just as in SCLI, IP is moving to Spec Force, *NOT* to Spec Ground, no violation of our reinterpretation of (56) is incurred, although its literal phrasing would be violated, incorrectly.

natural expectation is that not all wh-phrases have that ability; the unacceptability of (62), first noted by Cornulier (1974),

(62) a. ?*Pourquoi parle Pierre?
why speaks P
Why does P speaks?
b. ?*Pourquoi travaillent les linguistes?
why work the linguists
Why do linguists work?
c. ?* En quel sens parlent les fleurs?
in what sense speak the flowers [19]
In which sense do flowers speak?

and discussed at length in a different perspective in K&P's section 13, could now be seen as stemming from the inability of *pourquoi* and *en quel sens* to check an interrogative Force feature.

More generally, depending on the partly idiosyncratic syntactic and morphological make up of their wh-phrases, one would expect closely related languages to differ with respect to this 'extra' ability, which should yield interesting minimal differences; we shall see in the next section that French and Italian meet that expectation.

9. Italian

In our general perspective, the structure of interrogative clauses is invariant across the Romance languages; each of them has to check the same set of features in the left periphery, hence the computations at work in French should be present

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[19]. K&P point out in their footnote 59 that when argumental, *en quel sens* is compatible with SI, as in (i):

(i) En quel sens a tourné la voiture?
in what direction has turned the car
Which direction did the car turn?

elsewhere as well, although orthogonal differences between them might make them 'opaque' at spellout. If this is on the right track standard Italian might be expected to have two different types of interrogative constructions; one should correspond to SCLI, be restricted to main contexts and occur in both wh- and yes/no questions; the other should be the counterpart of French SI and should thus be licit in both main and embedded contexts although it should be banned in yes/no questions and can be expected to be restricted to certain types of wh-items, just as it is in French.

In this section we shall try to show that Italian indeed has both SCLI and SI, a property that has remained undetected up to now because standard Italian is a null subject language. In addition, we shall suggest that the SI phenomenology in the two languages has a partly different distribution because Italian non d-linked wh-phrases are unable to check the Force feature, unlike (most of --see (62)--) their French analogues.

9.1. SCLI and the Main vs Embedded Asymmetry

Standard Italian does not have lexical subject clitics, although it has a corresponding null pronoun, pro[20]. As a consequence, the only way to distinguish *Italian* SCLI configurations corresponding to French sentences like *Qu'a-t-il fait, Jean* ('What has he done, Jean?) and *Italian* SI of the type *Qu'a fait Jean* ('What has done Jean?'), if such exist, should be intonation.

French sentences like *Qu'a-t-il fait, Jean* ('What has he done, Jean?) are derived via SCLI and display an obligatory intonation break before the sentence-final 'subject' since such 'subjects' are moved to, or merged in, a ('very high') CLLD position. If SCLI of this type exists in Italian as well, the same should hold true.[21]

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[20]. See all the literature on the null subject parameter and Cardinaletti and Starke (1999). On Alexiadou & Anagnostopoulou's (1998) reanalysis of the null subject parameter, no null pronoun needs to be posited in the Romance type null subject languages; such a view would make our very direct assimilation of Italian pro inversion and French SCLI more difficult to express.

[21]. For the sake of execution we say that cases of Clitic Right dislocations like (63) are derived from the corresponding Clitic Left dislocations configurations via (further) CP movement to the left

In SI like *Qu'a fait Jean?* ('What has done Jean?'), on the other hand, the postverbal subject has moved (leftwards) to a position in the left periphery previous to Remnant IP movement; it is thus standing much 'lower' in the clause structure

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periphery. Recall that the 'very high' CLLD position in which *Jean* is standing in *Qu'a-t-il fait, Jean* should be carefully distinguished from the 'lower' Comp position of in which *Jean* is standing in SI sentences like *Qu'a fait Jean*; although the DPs standing in both positions show an 'anti-indefiniteness effect (see section 8), the lower position, unlike the higher one, can host quantifiers; compare *À qui n'a parlé personne?* ('To whom has spoken noone?) vs **À qui n'a-t-il parlé, personne* ('To whom has he spoken, noone?) is sharply ungrammatical.

As is well-known --see Kayne (1972)-- sentences like (i) should also be carefully distinguished from complex inversion cases like (ii):

(i) À qui a-t-il parlé, Jean?
to whom has he spoken, Jean
Who did Jean talk to?

(ii) À qui Jean a-t-il parlé?
to whom Jean has he spoken

In the latter, though not in the former, the subject *Jean* has been merged in Spec IP and has moved to Spec Force along with the remainder of IP. For reasons discussed in Pollock (2000), CI is not available in Italian or in the NIDs, even though the NIDs often show SCLI; this is because full DPs in Italian move further up than they do in French and can thus never be dragged along by Remnant IP movement, which suffices to exclude derivations like (iii):

(iii) * $[_{OpP}$ Cosa Op° $[_{ForceP}$ $[_{IP}$ [Gianni t_i] ha t_j $]_k$ Force° $[_{Agrs°}$ pro_i Agrs°] [fatto ... $]_j$ t_k]

This should arguably be tied to Italian and the NIDs being null subject languages, unlike French; in Pollock's (2000) this link is expressed as follows: Romance SCLI and CI inversion are really instances of Remnant *TP* movement; in non pro drop languages full DPs --and, more exceptionally, nominative clitics in the '-ti' dialects of French and Valdôtain-- can stand in Spec TP; in the null subject languages, on the other hand, they can't and must at least move to Spec AgrS; it follows that (i) can never obtain in Italian.

and is not --in fact cannot be-- separated from the rest of the clause by any pause. If Italian has configurations to be analyzed in terms of SI, non 'emarginated' subjects should surface, just as they do in French, for exactly the same reasons.

Bearing those remarks in mind, we note that, everything else being equal, the intonational pattern of Italian main questions like (63b) does correspond to that of French SCLI cases like (63a):

(63) a. Qu'a-t-il fait, Jean?
what has-he done, J.
What has Jean done?
b. Cosa ha fatto, Gianni?
what has-he done, J.

We take our lead from this and now claim that (63b) should indeed be analyzed as in (64):

(64) Cosa ha-pro fatto, Gianni?
What has pro done, Gianni

This says that (63b) has a pro subject, the null counterpart of French *il* and that pro, like *il*, occurs immediately to the right of the auxiliary; the derivation of (63b) is thus exactly the same as that proposed for its French analogues in section 7; the 'pro inversion' version of SCLI at work in Italian is also a consequence of remnant IP movement to the Spec Force, as sketched in (65):

(65) Input : [pro è andato dove]
(a) Merge Op1° and IP and attract dove to spec Op1P ⇒
$[_{Op1P}$ dove$_i$ Op1° [pro è andato t_i]]
(b) Merge TopP and Op1P and attract the participial phrase [andato t_i] to spec Top ⇒
$[_{TopP}$ [andato $t_i]_j$ Top° $[_{Op1P}$ dove$_i$ Op1° [pro è t_j]]]
(c) Merge G° and TopP and attract 'pro' to spec G ⇒
$[_{GP}$ pro$_k$ G° $[_{TopP}$ [andato $t_i]_j$ Top° $[_{Op1P}$ dove$_i$ Op1° [t_k è t_j]]]]

(d) Merge Force° and GP and attract IP to spec Force° ⇒
$[_{ForceP}$ [t_k è t_j] $_1$ F° $[_{GP}$ pro_k G° $[_{TopP}$ [andato t_i] $_j$ Top° $[_{Op1P}$ $dove_i$ Op1° t_1]]]]]

(e) Merge Op2P° and ForceP and attract dove to Spec Op2° ⇒
$[_{Op2P}$ $dove_i$ Op2° $[_{ForceP}$ [t_k è t_j] $_1$ F° $[_{GP}$ pro_k G° $[_{TopP}$ [andato t_i] $_j$ Top° $[_{Op1P}$ t_i Op1° t_1]]]]]]

In that derivation 'pro' moves to the Spec Ground position just as *il* does in French SCLI and Remnant IP movement shifts the (IP constituent containing the) finite auxiliary to pro's left; nominative weak pronouns move because they have a [+ground] feature in the numeration and are attracted to the relevant layer of the Comp domain to check an uninterpretable feature; if Italian 'pro' is a weak pronoun the extension is automatic.

Of course, Standard Italian is similar to French and different from Bellunese in not having the wh-doubling structure which results in (apparent) wh-in situ and SCLI in that language; having no doubling mechanism, no null or lexical Restrictor can move alone to the higher OpP layer and the full wh- phrase must therefore move to SpecOp2.

If French SCLI (63a) and Italian 'pro inversion' in (63b) are derived by one and the same computation, they should obey the same restrictions; in particular they should be banned in embedded questions; we believe that this is true and that the well-formed (66a) is the counterpart of the non inverted French configuration in (66b):

(66) a. Mi hanno chiesto cosa pro ha fatto, Gianni
to me have asked what pro has done, Gianni
They asked me what Gianni has done

b. Ils m'ont demandè ce qu'il a fait, Jean
they to me have asked what he has done, Jean
They've asked me what Jean has done

c. *Ils m'ont demandé (ce) qu'a-t-il fait, Jean
they to me have asekd what has-he done, Jean

Because pro is phonetically null, (66a) and (63b) are deceptively identical; but in (66a) there can't have been any more Remnant IP movement than in (66c) in French,

for reasons stated above; so only wh-movement has applied and pro is in its usual preverbal IP position.[22]

This sketch ties together a number of facts and makes interesting predictions; firstly it explains the ungrammaticality of (67) in the same terms as it does its French analogues in (68):

(67) a. *Cosa pro (non) ha letto, nessuno?
what pro (not) has read, noone
b. *Nessuno, cosa pro (non) ha letto?
noone, what pro not has read?
What did noone read?

(68) a. *Que n'a-t-il pas lu, personne? (same as (67a))
b. *Personne, que n'a-t-il pas lu? (same as (67b))

This simply follows from the fact that no (negative) quantifier can be merged in or attracted to a (Clitic) left dislocated position, or, put slighly differently, that no lexical or non lexical subject clitic can be used as a resumptive pronoun for a quantifier .

Secondly, if our SCLI analysis of non D-linked wh- questions in main contexts can be shown to be the only available option in Italian we will have a simple account of the necessary 'emargination' of subjects in such contexts, a well-known though, to our knowledge, still unexplained fact; compare:

(68') a. Cosa ha fatto, Gianni?
what has done, Gianni
b. *Cosa ha fatto Gianni?
what has done Gianni
What did Gianni do?

The next sections will show that this is the correct tack; (68'b) will thus follow from our analysis of 'pro inversion' and the unavailability of SI in Italian main

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[22]. IP here stands for AgrsP, if the non existence of CI in Italian is analyzed as sketched in note 21.

questions with non D-linked wh- phrases.

Thirdly, if (63b) is really a case of 'invisible' SCLI unavailable in embedded questions, we expect Italian questions to be able to surface with a preverbal subject only in subordinate clauses; (69) vs (70) shows the expected contrast:

(69) a. Mi hanno chiesto dove Gianni fosse andato
to me have asked where Gianni were gone
They asked me where Gianni went
b. Mi hanno chiesto dove Gianni è andato ieri
to me have asked where Gianni is gone yesterday
They asked me where Gianni went yesterday

(70) *Dove Gianni è andato (ieri)?
where Gianni is gone (yesterday)
Where did Gianni go (yesterday)?

As is well known, preverbal subjects are fine when the verb is in the subjunctive, as in (69a); when it is in the indicative, the sentence is fine provided the VP contains an object or an adverb, as in (69b); on the other hand, their counterparts in main clauses like (70) are unacceptable, as expected.[23]

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[23]. We come back in 9.3 to the fact that (i) and the like are often judged to be degraded

(i) ??Mi hanno chiesto dove Gianni è andato
to me have asked where Gianni is gone
They asked me where Gianni has gone

and to the fact that bare wh-phrases like *dove* or *cosa* when contrastively stressed under D-linking permit to a varying degree non inverted questions like (ii):

(ii) ? DOVE Gianni è andato?
where Gianni is gone?
Where has Gianni gone?

9.2. Italian non D-linked wh- phrases and Stylistic Inversion

We know from section 7 that SI is a case of remnant movement to the Ground layer of the invariant left periphery in (71):

(71) $[_{Op2P}$ Op2° $[_{ForceP}$ Force°] $[_{GroundP}$ G° $[_{TopP}$ Top° $[_{Op1P}$ Op1° IP]]]]]]

Granted this, SI requires that the Force and OP2 features be checked by some other means. The only acceptable candidates seem to be the wh- phrases themselves, which thus have to have the ability to check three different features in the left periphery, Op1 and Op2 --as discussed in section 8-- but also [+Question] in Force; this does not hold of SCLI, in which Force is checked by remant IP movement itself; as already noted, this may well suffice to account for minimal pairs like e.g. *Est-il parti?* ('is he gone?') vs **Est parti Jean?* ('Is gone Jean?') in French; in SCLI on the other hand, only the OP2 feature is checked by the wh-item.[24] We now capitalize on this difference to account for the distribution of SI in standard Italian.

We interpret the contrast in (72) as showing that SI is fine in embedded contexts but excluded in main ones:

(72) a. *Cosa ha fatto Gianni?
what has done Gianni
What did Gianni do?

b. Mi hanno chiesto cosa ha fatto Gianni
to me have asked what has done Gianni
They asked me what Gianni did

If so, Italian contrasts with French, where SI is *not* limited to embedded questions:

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[24]. Our analysis of yes/no question has no need for null wh-phrases; in our perspective Op2P and Op1P are only required to be merged in (72) when the numeration contains wh- phrases, i.e. items whose Op1 and Op2 features must be checked; when none are present the Op1 and Op2 layers need not --in fact cannot-- be merged since there won't be any element in the structure to erase their non interpretable features.

(73) a. Qu'a fait Jean?
what has done Gianni
What did Gianni do?
b. Ils m'ont demandè ce qu'a fait Jean
they to me have asked what has done Gianni
They asked me what Gianni did

The SI derivation of (73) would be as in (74):

Input : [$_{IP}$ Gianni è andato dove]

(74) (a) Merge Op1° and IP and *dove* movement to Op1P ⇒
[$_{Op1P}$ dove$_i$ Op1° [$_{IP}$ Gianni è andato t$_i$]]

(b) Merge Top° and Op1° and attract *Gianni* to TopP ⇒
[$_{TopP}$ [Gianni]$_j$ Top° [$_{Op1P}$ dove$_i$ Op1° [$_{IP}$ t$_j$ è andato t$_i$]]]

(c) Merge Ground and TopP and attract (Remnant) IP movement to GroundP ⇒
[$_{GroundP}$ [$_{IP}$ t$_j$ è andato t$_i$]$_k$ G° [$_{ToPP}$ [Gianni]$_j$ Top° [$_{Op1P}$ dove$_i$ Op1° [$_{IP}$ t$_k$]]]]

(d) Merge Force°and GroundP and attract *dove* to Spec Force ⇒
[$_{ForceP}$ Dove$_i$ Force° [$_{GroundP}$ [$_{IP}$ t$_j$ è andato t$_i$]$_k$ Ground° [$_{TopP}$ [Gianni]$_j$ Top° [$_{Op1PP}$ t$_i$ Op1° [$_{IP}$ t$_k$]]]]]

(e) Merge Op2 and Force and attract *dove* to Spec Op2P ⇒
[$_{Op2P}$ Dove$_i$ Op2° [$_{ForceP}$ t$_i$ Force° [$_{GroundP}$ [$_{IP}$ t$_j$ è andato t$_i$]$_k$ Ground° [$_{TopP}$ [Gianni]$_j$ Top° [$_{Op1PP}$ t$_i$ Op1° [$_{IP}$ t$_k$]]]]]]

(74) yields a converging derivation only in embedded questions in Italian; there is a consensus that the main vs embedded contrast is a consequence of some form of lexical checking by the matrix verb of the Force feature in embedded clauses, which is unavailable in root sentences and requires XP movement to Force; we conclude that Italian wh-words like *cosa, dove, a chi* etc. can only check their 'ordinary' OP1 and Op2 features: (non d-linked) bare wh-words cannot bear a [+Question] force feature.

That [+Question] feature must therefore be checked some other way; it can only be via remnant IP movement in main contexts, which requires (obligatory) SCLI in

its 'pro-inversion' version, or by lexical checking by a selecting verb in embedded contexts; this gives us an account of the mysterious contrasts in (75),

(75) a. Cosa ha fatto, Gianni?
what has pro done, Gianni
What did Gianni do?
b. *Cosa ha fatto Gianni?
what has pro done Gianni
c. Mi hanno chiesto cosa ha fatto Gianni
to me have asked me what has done Gianni
They asked me what Gianni did

which we see as parallel to those in (76) in French:[25]

(76) a. Pourquoi avait-il téléphoné, (Jean)?
why has he phoned, Jean
Why has Jean phoned?
b. *Pourquoi avait téléphoné Jean?
Why had phoned Jean
c. Ils m'ont demandé pourquoi avait téléphoné Jean
they to me have asked me why had phoned Jean
They asked me why Jean had phoned

In (75b) and (76b) a [+question] force feature has remained unchecked, giving rise to an uninterpretable LF; in (75a) and (76a), Remnant IP mvt to Force checks the [+question] force feature, thus relieving *cosa* and *pourquoi* of an impossible task; lexical checking of [+question] by *chiesto* and *demandé* in (75c) and (76c) does the same, with the same (fortunate) consequences.

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[25]. Pairs like (76b) vs (76c) were pointed out to Jean-Yves Pollock and Richard Kayne by Paul Hirschbülher almost 25 years ago but had so far remained without any explanation. For unclear reasons in the text perspective, there is no main vs embedded contrast with *en quel sens*, and the embedded version of (62) above remains unacceptable.

9.3. D-linked wh- words and SI

Our analysis so far has crucially relied on the idea that Italian wh- phrases are deficient in a way their French analogues are not. If this is correct one might expect Italian to have other types of wh-items behaving differently; with this in mind, let us turn to D-linked wh- phrases; they show strinkingly different behavior in root SI contexts, as (77) shows,

(77) a. Quale libro ha letto Gianni?
which book has read Gianni
Which book did Gianni read?
b. *Cosa ha letto Gianni
what has read Gianni
What did Gianni read?
c. Mi hanno chiesto quale libro ha letto Gianni
to me have asked me which book has read John
They asked me which book Gianni read

and they thus provide strong support for our view that the explanation for why SI is excluded in matrix contexts like (75b) crucially hinges on the properties of the wh-element.

In our terms, examples like (77) establish that D-linked wh-items make SI structures licit in questions, both in root and embedded contexts; if so (77) should be seen in the same light as (78) in French:

(78) a. Dans quel but a téléphoné Jean?
in what goal has phoned Jean
What has Jean phoned for?
b. *Pourquoi a téléphoné Jean?
why has phoned Jean
Why has Jean phoned?
c. Ils m'ont demandé dans quel but avait téléphoné Jean
they to me have asked me in what goal had phoned Jean
They asked me why Jean had phoned

Both will follow from our invariant structure of the left periphery if D-linked wh- phrases like *quale libro, dans quel but CAN* check the [+question] feature of the Force layer, unlike non d-linked wh-items like *cosa* in Italian or *pourquoi* in French.

In brief, in both French and Italian those wh-phrases that cannot check the [+question] feature can only occur in embedded cases of SI, where [+question] is checked by means of the selecting verb; chosing such wh-phrases in the numeration of a main question will thus force SCLI; on the other hand, those wh- phrases that can type their clause as a question --i.e. check [+question] in ForceP-- make it possible for SI to occur in main contexts as well.

That the checking of the [+question] feature is achieved by two different means in main and embedded clauses is also shown by contrasts like the following:

(79) a. Quale libro non ha letto nessuno?
which book not has read noone
Which book did noone read?

b. *Cosa non ha letto nessuno?
what not has read noone [26]
What did noone read?

c. Mi hanno chiesto quale libro non ha letto nessuno
to me have asked which book has read noone
They asked me which book noone read

d. Mi hanno chiesto cosa non ha letto nessuno
to me have asked what has read noone
They asked me what noone read

Such examples show that there is a main vs. embedded asymmetry with SI as well, but it reverses that at work in V2 structures and SCLI. SI is *unrestricted* in embedded clauses *because* Force is checked by something other than the wh- phrase itself, which erases all surface differences concerning the checking capabilities of the various types of wh-items.

One additional argument in favour of a parallel between French SI and its Italian

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[26] (79b) is ungrammatical only when the wh-word is interpreted as non d-linked. See (82) below.

counterpart is given by the ungrammaticality of sentences like the following:

(80) a. *Quale libro ha letto qualcuno?
which book has read someone
Which book has someone read?
b. *Quale politico vota qualcuno?
which politician votes someone
Which politician does somebody vote for?

which in our perspective should be seen as the exact counterparts of (81) in French:

(81) a. *Quel gateau a mangè quelqu'un?
what cake has eaten someone
Which cake did someone eat?
b. *Quel article critiquera quelqu'un?
what article will-criticize someone
Which article will someone criticize?

Both violate the 'anti-indefiniteness' effect described in section 8 above and Kayne & Pollock's (1999, section 6).

The picture we have just drawn is somewhat simplified in that the judgements concerning *quale* wh-phrases in (79a) can be reproduced even with bare wh-words provided a suitable intonation is adopted, as in (82):

(82) a. COSA non ha fatto nessuno?
what non has done anyone
What has noone done?
b. A CHI non ha parlato nessuno?
to whom not has spoken anyone
Whom did noone talk to?

In (82) there is high pitch on *COsa* or *A CHI* and then a low level tone on the rest of the sentence. In such cases, *cosa* and *a chi* are interpreted as D-linked and as a consequence a SI configuration can be licitly produced.

9.4. D-linked wh-items and non inverted structures

D-linked wh-items can of course also be found in SCLI contexts like (83):

(83) Quale libro ha letto, Gianni?
which book has read, G
Which book has Gianni read?

which then show that D-linked wh- items are only *optional* [+question] checkers.

That more is involved in the syntax of Italian d-linked wh-phrase questions however, is shown by minimal pairs like (84a) vs (84b);

(84) a. ?(?)Quale ragazzo Gianni ha visto ieri?
which boy Gianni has seen yesterday
Which boy did Gianni see yesterday?
b. *Cosa Gianni ha visto ieri?
what Gianni has seen yesterday
What did Gianni see yesterday?

Keeping to our strategy so far, we shall try to make sense of such (somewhat marginal but clear) pairs by aligning them with French non inverted interrogatives like (84) and viewing (84a) vs (84b) in the same light as (85) vs (86):[27]

(85) a. Quel livre Marie n'a pas lu?
which book Marie ne has not read
Which book didn't Marie read?

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[27]. (86a) is sharply ungrammatical (86b, c) are less so, probably because they can be rescued on a marked intonation which would stress *où, qui* etc. and give a low level tone to the rest of the sentence, not unlike that of Italian in examples like (82) above. Because *que* cannot be stressed in this way that strategy remains unavailable to (82a). Without that marked intonation (86b, c) strike the native speaker of French among us as rather sharply deviant.

b. Quel livre seul Jean a lu?
which book only Jean has read
Which book did only Jean read?
c. Quel linguiste seul Jean supporte?
which linguist only Jean (can) stand
Which linguist can only Jean stand?

(86) a. *Que Marie n'a pas lu ?
what Marie ne has not read
What didn't Marie read?
b. ?*Où seul Jean part?
where only Jean goes
Where did only Jean go?
c. ?*Qui seul Jean supporte?
who only Jean (can) stand
Who can only Jean stand?

Since no inversion at all is seen in (85) we claim, as in Pollock, Munaro & Poletto (1999), that French complex wh-phrases like *quel livre* can in and of themselves check all the features of the invariant left periphery of interrogative sentences. When that option is chosen the complex wh-phrases in the numeration bear [+Ground] and [+question] features in addition to their usual Op1 and Op2 features; if so nothing need --hence can-- happen in the IP field, which is what we see in (85a) and (86). Assuming bare wh- phrases like *que, où* and *qui* fail to have the ability to bear a [+ground] feature, another phrase must; we know from K&P and section 8 that IP itself can be [+Ground]; we also know, however, that in Remnant IP mvt to Spec GP subject topicalization must apply in the derivation of sentences like (84a) and (85); since neither have in (84b) and (86) such sentences are excluded because the ('strong') features of the French CP field of interrogatives have failed to be checked by a licit checker in overt syntax.[28] The (84a) vs (84b) pair will follow likewise if in Italian too complex wh-phrases like *quale libro* can move from their IP internal argument position to the Op2 position in the CP field checking all four Op1,

[28]. An IP with a [-ground] subject cannot check a [+ground] feature in the left periphery; see section 8 and references cited there.

G, Force and Op2 features on their way. If so, there is no remnant IP movement at all in (84a), the preverbal subjects in those sentences are standing in their usual preverbal position. That explains why QPs like *nessuno* and *solo qualcuno* occur where they do in (87):

(87) a. A quale politico nessuno ha dato il proprio voto?
to which politician noone has given his vote
Which politician did noone vote for?
b. A quale politico solo qualcuno ha dato il proprio voto?
to which politician only someone has given his vote
Which politician did only somone vote for?
c. A quale politico solo Gianni ha dato il proprio voto?
to which politician only John has given his vote
Which politician did only John vote for?

In (88), however,

(88) a. ??A chi nessuno ha dato il proprio voto?
to whom noone has given his vote
Whom did noone vote for?
b. ??A chi solo qualcuno ha dato il proprio voto?
to whom only someone has given his vote
Whom did only someone vote for?
c. ?? A chi solo Gianni ha dato il proprio voto?
to whom only John has given his vote
Whom did only Gianni vote for?

since bare *a chi* cannot check the [+Ground] feature --or for the matter of that the [+Question] force feature, see above--, Remnant IP mvt should take place, which suffices to exclude all such examples; if Remnant IP movement to [+ground] did apply *nessuno* would have to first move out of IP; but there would still be a [+question] feature to check, which no element in the structure could do.

The facts concerning the acceptability of preverbal subjects in Italian wh-questions with complex wh-phrases are somewhat more fuzzy than this sketch indicates. Many speakers find (89) (much) worse than (87a).

(89) ??Quale libro nessuno legge?
which book noone reads
Which book does noone read?

Descriptively it seems that the perfect acceptability of preverbal DP or QP subjects in wh-questions with (complex) D-linked wh-phrases is contingent on the presence of an object in VP or an adverbial in postverbal position. When there is one, as in (87), a postverbal position for the subject is degraded and the preverbal position is correspondingly perfect. When no such object or adverb is present, Italian speakers seem to prefer a Remnant IP mvt strategy. [29]

Contrasts of that type are not restricted to wh- questions, as the following examples show:

(90) A. Gianni ha dato il libro a Maria
Gianni has given the book to Maria
B. (a) No, NESSUNO ha dato il libro a Maria
No, noone has given the book to M
(b) *No, non ha dato il libro a Maria NESSUNO
no, not has given the book to M. noone

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[29]. On our analysis Italian postverbal subjects in wh-questions are always derived via remnant IP movement to the left periphery. *Pace* Belletti (1999), it would seem natural to extend the same type of approach to *all* postverbal subjects in declarative clauses, as this formulation implies; we will not develop this any further here, as the task is clearly beyond the scope and topic of this paper; we simply note that any such analysis will have to account for the well-known fact --seeBelletti (1988) and Belletti (1999) and much previous work-- that Italian and French have at least two different types of postverbal subjects: those of inaccusatives tolerate *ne/en*-extraction, while those of (in)transitives (typically) don't. See Poletto & Pollock (in prep). Rather than relying on the idea that in the former case the subjects are generated low --thus allowing for acceptable *ne* cliticization to some c-commanding Clitic Phrase head-- while in the latter they are generated too high for that to take place, a uniform Remnant IP mvt to the left periphery will have to claim that *ne/en* cliticization can apply before Remnant mvt takes place when IP contains an inaccusative though typically not when it contains intransitives (see Kayne & Pollock (1999, note 9)).

(c) No, a Maria, il libro non l'ha dato NESSUNO
no, to M., the book not it-has given noone

(91) A. Gianni vuole dare il proprio voto a Berlusconi
G. wants to give his vote to B.
B. (a) No, NESSUNO vuole dare il proprio voto a Berlusconi
No, noone wants to give his vote to B.
(b) *No, non vuole dare il proprio voto a Berlusconi NESSUNO
no, non wants to give his vote to Berlusconi noone
(c) No, il proprio voto a Berlusconi non lo vuole dare NESSUNO
no, his vote to Berlusconi, non it-wants to give noone

(92) A. Gianni e arrivato ieri (G. is arrived yesterday)
B. (a) ??No, NESSUNO e arrivato ieri (No, noone is arrived yesterday)
(b) No non e arrivato NESSUNO ieri (No, non is arrived noone yesterday)

Such examples show that the optimal position for contrastively stressed subject QPs in Italian depends on what there is in the VP; if, as in (89) and (91), an argument fills the object position the contrastively stressed preverbal QP subject is fine; if an object is not present in the VP, on the other hand, the subject seems to require a postverbal position, as in (92).

On this basis, it seems fair to say that a finer-grained study of (89) would have to carry over to (90), (91) and (92); if so it is at least in part orthogonal to the syntax of wh- questions and beyond the scope of the present work.[30]

In sum, the general picture concerning the difference between D-linked and non D-linked wh-items emerging from the above is the following: D-linked wh- phrases are in general "more liberal" than non D-linked ones in allowing for a greater variety of interrogative constructions. In our account this observation translates in terms of different checking abilities. French and Italian D-linked wh- phrases can check all

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[30]. (90B(a)) and (91B(a)) are not the most natural sentences in the dialogue. Most speakers would probably prefer to left-dislocate the constituent inside the VP and have a postverbal contrastively stressed QP, as in (90B(c)) or (91B(c)).

the ("strong") features activated in the different layers of invariant interrogative left periphery repeated in (91) --i.e. Op1, Ground, Force and Op2--:

(93) $[_{Op2P}$ Op2° $[_{ForceP}$ Force°] $[_{GroundP}$ G° $[_{TopP}$ Top°$[_{Op1P}$ Op1° IP]]]]]]

When this obtains non inverted structures are derived where no displacement other than "pure" wh-movement can take place. In Italian or French, D-linked wh-phrases need not check the [+ground] feature; when that obtains Remnant IP movement to GroundP must take place, resulting in main clause SI configurations; as for non D-linked wh-items like *cosa, a chi* etc. they only check Op2 and Op1 in Italian which excludes them from acceptable root SI structures; in that respect they are like French *pourquoi,* which shows the same distribution; as a consequence Italian *cosa, a chi* etc. and French *pourquoi* are only compatible with SI in embedded contexts --where some form of lexical checking of the [+question] feature of ForceP takes place-- ; in root contexts they thus force the 'pro-inversion' and SCLI strategies.[31]

This analysis of the various wh- configurations in French and Italian thus relies

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[31]. Contrasts like (i) and (ii)

(i) ??Je crois qu'est parti Jean
I think that is left Jean
I think Joh has left

(ii) Je doute que soit parti Jean
I doubt that be left Jean
I doubt that John has left

might concievably be viewed in the same terms, with the subjunctive making a goundP layer fully available in non interrogative subordinates which indicatives would typically ban. On the non availability of SI in yes/no questions and si subordinates see below. See Kayne & Pollock (1999, part 2) for an analysis of such contrasts relying on subject extraction from the subordonate and Remnant movement to the Comp domain of the *matrix* clause rather than on Remnant Movement to the left periphery of the *embedded* sentence.

on two differences between the two languages: the (non controversial) fact that Italian is a pro drop language and the deficient character of non D-linked, bare wh-phrases in Italian which prevents them from checking [+question] in Root clauses, thereby obligatorily triggering (non lexical though overt) SCLI configurations at spellout.

10. Conclusion: on Characterizing the Left Periphery of Questions.

The five functional projections ForceP, GP, Op1P, Op2P and TopP that the present work, capitalizing on previous research by Kayne & Pollock (1999), Pollock, Munaro & Poletto (1999), Poletto & Pollock (1999), has added to the standard interrogative ForceP of (wh-)questions (in Romance) have so far been motivated only syntactically; consequently the labels that we have given them have remained essentially mnemonic; it is worth pointing out that this is a perfectly legitimate move, which we share with most work on the fine structure of the IP and CP fields conducted over the last 15 years or so (see e.g. Pollock (1989), Cinque (1999)); the logic that leads to the identification of five different positions in the left periphery, as expressed in the hierarchy of functional projections in (93), should be familiar, although we have kept it implicit so far; we have been claiming in effect that without (93) it would be very difficult to account in a unitary and principled fashion for the syntax of (subject positions in) wh-questions in French, Italian and Bellunese; more precisely we have been arguing that (93) allows for a natural account of the apparently idiosyncratic behavior and location of the (bare) wh-words in the three languages and the various properties of postverbal subjects in different types of wh- questions; without (93) no such explanatorily satisfying account would be possible. This is because (93) has five different sites in the left periphery of questions to which various phrases can be attracted, in accordance with the usual requirements of checking theory, which gives just the leeway that the word order phenomena studied here[32] seem to require if they are to be integrated in the explanatory framework for comparative syntax developed in generative grammar

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[32]. See Poletto (2000) and Obenauer & Poletto (1999) for arguments that other higher positions must be added to (94) when rhetorical questions are taken into account.

over the last twenty five years or so.[33]

Let us summarize and highlight the chief properties of, and motivations for, the different positions of (93) as they emerge from the preceding discussion.

Starting with the lowest and highest layers, Op1 and Op2, Bellunese wears on its sleeves the fact that they attract different types of wh- elements or, in case of pied piping, different features in the same wh-phrase. 'OpP1' is the spell-out position in which all bare wh- words in Bellunese obligatorily stand in sentences like (94),

(94) a. Ha-tu magnà chè?
have you eaten what
What did you eat?
b. Se-tu 'ndat andè
are you gone where
Where did you go?

and through which all wh-words move on their way to (ForceP and) Op2P in French and Italian. Op2 is the position that attracts phonetically overt elements like *cos(s)a* or their null counterparts Rest., as discussed in section 7. Postulating those two positions is virtually forced on one by the "doubling" configurations in Bellunese and various other NIDs (see examples (30)-(32), section 7). On this basis, we have made what we take to be the null hypothesis and claimed that the two positions exist as well in the other Romance languages examined here; if so the 'high' position in which all the French and Italian wh-phrases surface at spellout is the Restrictor position, not the wh- (operator) position; wh- items reach it for the same reason complex wh-phrases in Bellunese do in sentences like e.g. *Che vestito à-la comprà?* (what dress has she bought?), namely because UG makes it impossible in such cases

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[33]. The assumption is that anything does NOT go in the variation among languages, more precisely, that surface differences in the syntax of languages as closely related as French, Bellunese, the Northern Italian dialects and Italian, however bizarre in appearance, like the respective surface distribution of *que* and *che* in French and Bellunese (see 2 above), should follow from the interplay of general UG principles and a limited set of parameters, often tied to the morphology of each language. The analysis developed above fits into that general picture fairly well although, of course, the fact that it does doesn't suffice to make it right.

to only attract the restrictor of the variable bound by *che* (see also discussion of (40), (43) and (44) above).

What this is saying, then, is that the familiar distinction between binding and strong binding (see e.g. Chomsky (1986, 85)) is syntactically encoded in the left periphery of questions in (some of) the Romance languages; that that distinction should be expressed syntactically is not particularly surprising; what is a little more surprising, perhaps, is the ordering and hierarchy of the two functional layers that express it; the domain restrictor is specified (checked) later in the derivation, hence is structurally higher, than the variable binding by the wh- operator.[34] But then our surpise may well only be due to our incorrectly expecting languages to mimic the formulas of familiar logic in too direct a way.

Our TopicP and Force P are more familiar; TopP is the position to which the subject of SI and the various participial and infinitival complements of the finite

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[34]. What this formulation implies is that (wh-) quantification is read --i.e. fed to the Conceptual/intensional systems-- 'on line'; the question of whether non wh- operators can also stand in or move through Op1/2P cannot be discussed here; in the likely event that they don't --despite French sentences like *Il faut tous qu'ils partent* ('They must all that they go' = they must all go)--, our 'OpP' label will remain apt if UG regulates the choice of the different operator positions to which different types of operators are attracted and from which they (weakly) bind their variables; this is the tacit assumption concerning the position to which QPs like *beaucoup* move in French QAD ('quantification at a distance') constructions like (i) --on which see Obenauer (1984), (1994):

(i) Il a beaucoup lu de livres
he has many read of books
He read a lot of books

Beaucoup in (i) is presumably standing in an IP internal operator position, but that position cannot host wh-phrases --cf. (ii):

(ii) *Il a combien lu de livres?
he has how many read of books
Did he read lot of books?

verb in SCLI are attracted; that the postverbal subject of French --and Italian-- SI constructions stands in such a (high) position in the left periphery is argued for at length in Kayne & Pollock (1999, part 1) and we have repeated some of their basic arguments in section 8 above; in addition, the label 'TopP' plays an important role in explaining the anti-indefiniteness effect of postverbal subjects in SI; as for our "ForceP", it is the layer made familiar by recent litterature on the left periphery and the use we have made of it is fairly standard; our only (major) innovation is our claim that Remnant IP Movement to Spec Force°, rather than head movement to Force°, is at work in French SCLI and its (covert) variants in Bellunese and Italian (see 2, 3, 4, 5).

It is worth stressing that if this is on the right track, *ALL* question related verb movements in Romance are cases of Remnant Movement; in particular Remnant IP movement in SI only differs from Remnant IP movement in SCLI --and CI (see Pollock (2000))-- in targeting a different layer of the Comp domain, Kayne & Pollock's (1999) 'GP' rather than ForceP. We believe that this unitary approach to the verb related displacements to Comp should be regarded as a step forward, especially if we are correct in our tentative account of why Remnant IP movement to GP crucially forces the subject to vacate it SpecIP position while in SCLI --and more obviously so in CI-- no such requirement holds (see section 8); our analysis of this major difference has banked on the fortunate homophony between K&P's (abstract) "GP" and our own "GroundP"; it states, faily naturally, that *all* elements in a [+ground] IP must also be [+ground]; on the assumption that non pronominal DPs in Romance can never be [+ground][35] we expect them to move out of IP, which is what we see in SI;[36] In SCLI and CI on the other hand, Remnant IP Movement is

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[35]. If English in particular and the Germanic languages in general didn't share that restriction we might consider that sentences like *Who has John rung up?* are derived via exactly the same Remnant IP movement to Force as its French counterpart *Qui a-t-il appelé?* On this see Poletto & Polock (in prep).

[36]. This formulation implies that there should be cases of (concealed) stylistic inversion with a [+ground] pronominal subject; Poletto & Pollock (1999), (in prep) do in fact claim that pairs like (i) vs (2) in French follow from the fact that in (i) (string vacuous remnant) IP movement to GP is possible though it is not in (ii), for the reason just stated in the text:

triggered by a [+question] feature and a sentence can be so characterized regardless of its having a [+ground] subject or not; it must be stressed that in viewing K&P's "GP" and our "GroundP" as one element we have been exploiting a general view of the left periphery also developed in Poletto (1999) and Beninca & Poletto (1999) in which the left periphery (of questions) divides fundamentally into two subparts, a lower half in which 'new' information is located and a higher half in which the 'known' information stands, a hierarchy which our (93) respects.

The present work has made very crucial use of GroundP since it has claimed it is obligatorily present in the left periphery of Romance (wh-) questions; it must therefore attract a constituent appropriately marked to its specifier; when that is impossible a non converging derivation obtains; in our analysis a variety of constituents can be so displaced.

Firstly, D-linked (complex) wh-phrases, as in French *Combien de linguistes Marie a rencontrés*? (how many linguists Mary has met?) and Italian *Quanti linguisti Maria ha incontrato* (same).

Secondly, (Remnant) IP, yielding French and Italian SI (cf. sections 9.1 and 9.2) like *A qui a téléhoné Marie?* (to whom has telephoned Marie?), *A quale ragazzo ha telefonato Maria*? (to which boy has telephoned Maria?)[37]

(i) a Où il va?
where he goes
Where is he going?
b Qui t'as vu
who you've seen
Whom did you see?

(ii) a ?*Où Yves va
where Yves goes
Where is Yves going?
b ?* Qui Paul a vu
who Paul has seen
Whom has Paul seen?

[37]. And possibly apparent non inverted sentences like *Où il va?* (Where he goes?) *Quand elle a téléphoné?* (when she has phoned?) etc. (see previous footnote) as well as subject extraction

Thirdly, (overt or covert) subject clitics in French, Bellunese and Italian SCLI configurations like *A qui a-t-elle parlé?* ('To whom has she spoken? ')

Consider Remnant IP movement to GroundP first; the idea that the non wh-part of IP somehow denotes presupposed knowledge has been taken for granted by most work on the syntax and semantics of wh- questions in generative grammar since at least Katz & Postal (1964); put in very informal terms, this is saying that 'who did you see' should be analyzed as 'presupposition (you saw someone) & wh (someone)', 'who saw you ?' as 'presupposition (someone saw you) & wh (someone)', 'when did you leave ?' as 'presupposition (you left at some time, & wh (some time)' etc.; on that view a [+ground] IP is attracted to the syntactic layer of the left periphery that is cross-linguistically devoted to the expression of shared or presupposed information. We may note in passing that this (re)interpretation of Remnant IP movement in SI may well offer an account of the well-known fact that the interrogative *si* complementizer of French, unlike *pourquoi,* does not allow for SI in embedded interrogatives and for the fact that root yes/no questions ban SI altogether:

(95) a. *Je ne sais pas si a téléphoné Marie
I know not if has phoned Marie
I do not know if Maire has phoned
b. *A téléphoné Marie?
has telephoned Marie
Has Marie phoned?

If *si* lexicalizes Force°, as commonly assumed --see e.e. Kayne (2000, chapter 4)-- and checks the [+question] feature of the embedded sentence, we can --probably must-- impute the ungrammaticality of (95) to the fact that IP is *not* 'presupposed' in yes/no questions in general and in *si* subordinates in particular. If so the attracting IP to the GroundP layer in yes/no questions like (95) cannot yield a converging derivation.

Going back to the other two ways of checking [+ground], the fact that D-linked (complex) wh-phrases should be able to do so is natural; D-linked wh-phrases do

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sentences like *Qui est venu*? (Who came?) in in which it is very tempting to say that string vacuous Remnant IP movement has (obligatorily) applied. See Poletto & Pollock (in prep)

contain information shared by the speaker and hearer since the domain over which the variable bound by *lequel, quale, combien* can range in sentences like *Lequel de tes amis Marie va épouser?* or *Quale libro ha letto Gianni?* is known to both hearer and speaker at the relevant stage in discourse; if so, nothing precludes taking the relevant part of the wh-phrase as [+Ground], allowing it to move to Spec GroundP; that *non* D-linked wh-phrases should on the contrary be incapable of so moving also follows from the same consideration since the range of the variable bound by bare wh- phrases like *qui, que, où, comment* etc. is (typically) unknown to the speaker.[38] That other [+ground] elements like (non assertive) nominative clitic pronouns should be similarly attracted in SCLI also seems fairly natural.

The left periphery of SCLI --and French CI-- and SI share a ground layer but they

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[38]. But see (discussion of) (82) on D-linked *COsa* etc. The fact that Remnant IP mvt and SCLI are still possible options in sentences like (i) containing D-linked wh-phrases,

(i) a Lequel de tes amis ont rencontré Marie et Jean
which of your friends have met Marie and Jean
Which of your friend did Marie and Jean meet?
b Quale libro ha letto, Gianni?
which book has read, Gianni
Which book did Gianni read?

we take to follow from a possible option in the assignment of the ground feature either to IP or to the D-linked (complex) wh-phrase. The numerations of (i) and (ii) are thus crucilly different:

(ii) a Lequel de tes amis Marie et Jean ont rencontré?
which of your friends Marie and Jean have met
Which of your friends did Marie and Jean meet?
b Quale libro ha letto Gianni?
which book has read Gianni
Which book did Gianni read?

since in (ii) *'(lequel de) tes amis'* and *'Quale libro'* are [+Ground] while I(P) is in (i); this should most probably be tied to the 'salience' of what counts as Ground in the discourse.

differ crucially in their sensitivity to the root vs embedded asymmetry. French and Italian SCLI only obtain in root contexts; Italian has a less well-known though equally interesting pattern of facts which reverses the root vs embedded asymmetry: its SI is unrestricted in embedded contexts and restricted --in fact impossible with non D-linkesd wh-phrases-- in main wh- questions, as pairs like (96) show:

(96) a. *Dove va Maria?
Where goes Maria
Where is Maria going?
b. Dimmi dove va Maria
tell me where goes Maria
Tell me where Maria is going

The root vs embedded contrast exhibited by SCLI structures will follow, as standardly assumed, if the Comp domain targeted by Remnant IP movement in root SCLI has its feature checked by the matrix verb in embedded contexts.[39]

Italian pairs like (96) we have interpreted as showing that the [+question] Force feature cannot be checked by remnant IP movement; if so (96a) shows that Italian bare wh- phrases cannot check the [+question] feature; (96b) now follows since embedded questions have their force feature checked by the matrix verb.

In sum, the five basic projections of the left periphery of (some of) the Romance wh- questions trigger the following computations:

a) OP1 and OP2 features are checked by the wh-item, or by their 'restrictor' in doubling constructions;
b) The topic feature can be checked either by a DP subject in SI sentences of by the lower portion of IP corresponding to AspP (see footnote 8) in SCLI contexts;
c) [+ground] can be checked either by remnant IP movement, by the wh-item if its internal structure contains a [+ground] feature (as in D-linked wh- phrases) or by lexical or non lexical subject clitics;
d) [+question] Force can be checked by the wh-items themselves in SI sentences,

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[39]. Although we have remained vague as to the precise mechanism that allows this (lexical) checking. See Poletto & Pollock (in prep).

unless they are ''defective'' like French *pourquoi* and Italian non D-linked wh-items; remnant IP movement can also check that feature, as in SCLI contexts; lexical checking by a selecting verb plays the same part in embedded contexts.

Although our semantic characterisation of the various layers of (93) has remained very informal we feel it has some good first approximation plausibility; the unified treatment of SCLI, SI, Bellunese wh-in situ, wh-doubling in French, Bellunese and Italian that (93), our highly "split" complementizer area, makes possible is an indirect but cogent argument that at least that level of complexity is required if a truly explanatory account of the syntax of questions in Romance is to be ultimately developed.

Poletto@ux1.unipd.it
JYPollock@compuserve.com

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