

On Person Agreement

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Disclaimer (October 2013): This is the original version of an unpublished 20012 paper. The references and the discussion have not been updated. VB.

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Finally, this paper is dedicated to the memory of Prof. Sandra Bernardi.

1. Introduction

Since the origins of Case theory, the following assumption has survived (though in slightly different guises) through the various stages of development of the generative framework, up to the current Minimalist version:

(1) Nominative Case is licensed by [+finite] Tense (Chomsky 1998, 39; 1981, 50: "Tensed INFL").

This licensing condition captures a cross-linguistically significant empirical generalization,¹ but it immediately raises a fundamental question:

- Why is Nominative Case sensitive to finiteness?

This leads to a second related question:

- What are the relevant properties that distinguish [+finite] from [-finite] Tense?

Concerning these fundamental questions, two lines of thought have emerged in recent years.

According to the first one, the licensing ability is directly related to the "referential strength" of the Tense head. Building on Stowell (1982) and on Chomsky & Lasnik's (1991) Null Case theory, Martin (2000) and Boskovic (1997) have proposed a three-way distinction for the correlation between tense and Case licensing:

- (i) Finite forms have a full specification for tense and can check Nominative Case on a lexical (referentially independent) DP.
- (ii) Control infinitives have a weaker form of tense, which corresponds to Stowell's "unrealized tense" in English; the Tense head can only check a weaker form of Case, namely the null Case borne by the empty category PRO, which lacks intrinsic referential content (cf. Chomsky & Lasnik 1991, 119-120).
- (iii) ECM and raising infinitives completely lack tense, hence they have no Case checking properties at all; their subject must check Case in the matrix clause.

This conception of Nominative Case has received a new implementation in the framework of Pesetsky & Torrego's (2000) Relativized Extreme Functionalism: Nominative Case is an uninterpretable Tense feature on DP, which is checked by the interpretable feature on the Tense head. Symmetrically, subject agreement is a set of uninterpretable phi-features on the Tense head, which are checked by the interpretable phi-features of the subject DP.²

Under this view, the fundamental difference between finite and non-finite Tenses concerns their referential properties: finite Tense has a richer specification than control Tense, which is, in turn, more richly specified than ECM/raising Tense.³ The correlation with the referential strength of the licensed

¹ With some exceptions, to which I will return in section 7.1 below.

² See also Platzack (2001).

³ In this approach the status of the subject position depends exclusively on the nature of the Tense head, and the CP/IP status of the infinitival clause is irrelevant (though actually, Boskovic (1997, 70-71) has to assume that

DP subject is intuitively appealing; however, it should be noted that the actual content of the various Tense heads is not formally defined.⁴ More importantly, this proposal leaves open the question of why the referential strength of Tense determines the "strength" of the subject Case. The relation between these two properties remains unclear.

The second line of thought instead attributes a crucial role to agreement in licensing Nominative Case. Agreement is analysed as a bundle of phi-features, which may be realised directly on the Tense head (Chomsky 1998, 1999), or be projected as a separate Agr head (as in the Pollockian tradition up to

French infinitival complements to *believe*-verbs are necessarily projected as CPs). One corollary is that the property of finiteness resides exclusively in the Tense head. Below I will propose a different view.

⁴ It is claimed that the Tense head of control infinitives, as opposed to that of ECM/raising infinitives, can bind the event variable provided by the VP. Both Martin and Boskovic assume the possibility to license a simple eventive infinitive (i.e., non-stative and non-generic) as a diagnostics for the presence of Tense specification in the infinitival clause. In the absence of auxiliaries or adverbs of quantification, only a contentful Tense head is able to bind the event variable provided by the VP, as in the control infinitive (ia). In the ECM infinitive (ib), on the contrary, the Tense head is contentless and the event variable remains unbound, resulting in a deviant LF representation.

- (i) a. John forgot [PRO to bring the beer].
b.* Mary believed John [*t* to bring the beer].

However, the contentful Tense head of control infinitives in English only allows for an unrealized tense interpretation, whereas in Romance control clauses, the simple eventive infinitive also allows for a simultaneous interpretation w.r.t. the matrix event/state, and it can be embedded under the equivalent of the English ECM verbs (cf. Boskovic 1997, 63-65):

- (ii) a. Maria dimenticò [di PRO portare la birra].
Mary forgot to bring the beer
b. Maria credeva [di PRO picchiare il ladro].
Mary believed to hit the thief

Thus, the contentful Tense of control infinitives seems to have different temporal properties in the two language types.

As discussed in Pérez Vázquez (2001, 135 ff.), the difference seems to be related to aktionsart/aspectual properties of the English infinitival form rather than to tense. Apparently, the unrealized tense interpretation of (ia) and (iia) imposes no aktionsart or aspectual restrictions on the infinitival form. (The unrealized tense interpretation may be attributed to the presence of a hidden irrealis modal, as in Pesetsky 1991). On the contrary, the realized (simultaneous) interpretation of the infinitive selected by *believe* verbs disallows non-stative, non-generic simple infinitives. We may venture the hypothesis that in the latter, the event is conceptualized as punctual and perfective, and this makes it difficult to establish a simultaneous interpretation w.r.t. the matrix event (cf. Cowper 1998; Giorgi & Pianesi 1999, chapter 4). If the infinitive is stative, generic or in the progressive form, the simultaneous reading is allowed. A similar constraint emerges in Spanish: pace Boskovic, many speakers prefer the progressive infinitive in the control infinitive equivalent to (iib):

- (iii) Juan creía ??*golpear/ estar golpeando a un ladrón.
J. believed to-hit/to-be hitting a thief

By the Boskovic/Martin criterion, (iii) would be classified as a tenseless infinitive, yet it checks null Case (see Pérez Vázquez 2001, 135-136 for full discussion of this issue). The difference between English and Spanish vs. Italian and French may perhaps be related to the perfective vs. imperfective status of the simple infinitival form; be it as it may, the distinction seems to be orthogonal to the ECM/control contrast, cf. (ib) and (iii) vs. (iib). See also Landau (1999, 75-77) for a criticism of the Boskovic/Martin criterion.

Chomsky 1995), or even be projected in a system of different heads (Shlonsky 1989; Ritter 1995; Taraldsen 1995; Sigurdsson 2000, among others). Under this view, the crucial licensing property that distinguishes finite from non-finite verb forms is the fact that they are endowed with subject agreement, and in particular, with person agreement. This correlation is cross-linguistically valid, as discussed by Moravcsik (1988, 95-96):

"verb agreement in person occurs, in the overwhelmingly majority of cases, in the tensed verb and very rarely in untensed verb forms such as the infinitives. In languages like Hungarian or Portuguese where the infinitive does show person agreement with the subject, the finite verb does, too."⁵

This approach has been very recently revived by Chomsky (1998, 1999): Although verbal agreement is intrinsically uninterpretable, only a phi-complete Tense head that enters an AGREE relation with an active DP can value the uninterpretable Case feature of the latter, yielding Nominative Case. From this perspective, phi-completeness is a prerequisite for Case checking. A phi-complete Tense is one that is endowed with the full complement of phi-features, crucially both person and number.⁶ Only finite Tense is phi-complete in this sense.⁷

Whatever version of this approach one adopts, the fundamental question is once again not answered, but rather restated: why should phi-complete subject agreement be sensitive to finiteness?⁸

In this paper I propose a new approach to the licensing problem⁹ which incorporates insights from both these lines of analysis. I will borrow from the first approach the idea that the relevant opposition between finite and non-finite clauses must be sought for in the associated temporal structures, here understood in neo-reichenbachian terms. In particular, I will argue that the crucial difference lies in the presence vs. absence of the Speech point S.

Furthermore, I will adopt the idea that agreement plays a crucial role in licensing Nominative Case; I will argue that it is specifically person agreement that is sensitive to finiteness. These two steps will allow me to restate the original question in a new form, which immediately paves the way to a solution.

In the second part of the paper, I will extend the analysis proposed for finite person agreement to non-finite contexts. I will argue that non-finite control clauses do not lack person agreement altogether, but rather, they involve a defective (and morphologically abstract) person feature, which corresponds to the "anaphoric Agreement" proposed by Borer (1989) and by Landau (1999). I will show that non-

⁵ Moravcsik accounts for this generalization in terms of markedness theory: agreement is preferentially realized on the unmarked verb form, i.e. the finite one.

⁶ This differs from participial agreement, which is not phi-complete in that it lacks the person feature. For theory-internal reasons, Chomsky also assumes that ECM/raising tense has a defective person/EPP feature which triggers movement of the infinitival subject.

⁷ The proposed implication Nominative -> person may actually be too strong. As discussed by Sigurdhsson (1996), in Icelandic only the inverse implication holds: if the verb agrees in person, then it agrees with the Nominative argument; on the other hand, not every Nominative argument triggers person agreement. A similar argument for the correlation between Nominative and subject agreement is made by Hulk & van Kemenade (1993, 191-192) on the basis of Icelandic and Fiorentino data. See section 2 for more discussion of this issue

⁸ A third approach holds that both Agreement and Tense can license Nominative Case independently of each other, under different structural conditions, parametrically determined: see for instance Iatridou (1993) and Roberts (1993). This position was commonly accepted in the GB framework, but it is essentially disjunctive, and the equivalence between the two heads is unaccounted for.

⁹ I will use throughout the neutral term "licensing", rather than Case assignment or checking. As it will become clear below, the analysis is completely neutral w.r.t. the particular version of Case theory one adopts; Nominative Case will be thought of as a reflex of the more fundamental relation of person agreement.

obligatory control, and also most instances of obligatory control, can be subsumed under my approach (with some residual problems).

In the third part of the paper I will turn to a consideration of person agreement in subjunctive clauses, focussing on the so-called disjoint reference effect. Subjunctive clauses are often assumed to have an intermediate status between indicative and infinitival clauses, and in Farkas's (1992) analysis the disjoint reference effect is reduced to a functional competition between subjunctive and (control) infinitive. I will propose an approach to subjunctive person agreement which incorporates these insights.

In the last part of the paper I will briefly discuss some further empirical predictions of the present proposal, in particular with respect to infinitival clauses with Nominative subjects, which are analysed in detail in Pérez Vázquez (2001) and in Bianchi & Pérez Vázquez (in preparation). I will conclude by examining the consequences of this analysis at a more theoretical level.

For limitations of space and of linguistic competence, the analysis is applied to Nominative/Accusative Indo-European languages.

2. Finite clauses

2.1. Person agreement

Among the phi-features involved in subject agreement, the person feature has a special status. Normally, person and number agreement are triggered by the same Nominative DP. However, in certain impersonal contexts the two agreement features are dissociated: in these contexts, it can be shown that it is specifically the person feature that is responsible for Nominative Case licensing. Rigau (1991, 1994) reports that in Northwestern Catalan dialects, inverted subjects in impersonal sentences trigger no agreement at all, whereas in Central Catalan dialects, they trigger number agreement (2a). However, even in these dialects the inverted subject cannot be an unambiguously Nominative form, despite number agreement (2b):

(2) a. Es premiaran els millors escriptors.
SE will-reward-3PL the best writers

b. *Es premiaran ells. (Rigau 1991, 249)
SE will-reward-3PL they-NOM

This shows that number agreement *per se* cannot license Nominative Case; instead, person agreement is the crucial licensing factor.

A similar pattern is observed in Italian, where the impersonal *si* construction allows for optional agreement with a postverbal theme DP, as in (3a) (Cinque 1988, 554 ff. ; Taraldsen 1995, 313). The agreeing DP cannot be first or second person, as shown in (3b) (from Taraldsen 1995, 313): this suggests that only number agreement is involved, as in Catalan. Here too, the postverbal DP cannot be an unambiguous Nominative form (3c);¹⁰ in some non-standard varieties, the postverbal DP can actually be pronominalised by the Accusative clitic, as shown in (3d).

¹⁰ Irrelevantly, (3c) can be interpreted as a reflexive sentence. Even under this interpretation, it is strongly deviant, presumably because the weak pronoun *essi* does not easily allow for inversion (see Cardinaletti & Starke 1994; Cardinaletti 1998).

	to Gianni	pleased-1SG/*3SG	I-NOM		
c. *	Maria	vorrebbe	a Gianni	piacere	io.
	Maria	would-like	to Gianni	please-INF	I-NOM

This contrast reveals that finiteness is only relevant to those instances of Nominative Case which cooccur with person agreement (cf. (6) and (8b) vs. (7)).

Here I will not discuss the nature of the non-person related Nominative in Icelandic, nor the question of why the Dative quirky subject prevents the Nominative object from controlling person agreement. It may be the case that morphological Nominative in Icelandic is licensed by number agreement (Taraldsen 1995) or even independently of any agreement feature, within vP (SigurDsson 2000). Be it as it may, the crucial common property that makes Icelandic and Italian Nominative subjects, and Italian Nominative objects, sensitive to finiteness is the fact that they control person agreement. Let us thus make a radical step, and restate the original generalisation (1) as follows:

(9) Person agreement is sensitive to finiteness.

The correctness of this restatement is supported by some independent facts noted by Kayne (2000a, 196-197). In French, subject clitics are excluded from non-finite sentences, even from those gerund clauses which allow for a lexical DP subject:

- (10) a. Jean ayant résolu le problème, tout va bien.
 J. having solved the problem, all goes well
 b.* J'ayant résolu le problème, tout va bien.
 1SG-cl having solved the problem all goes well

This may be accounted for by assuming that subject clitics require Nominative Case, being morphologically Nominative forms, and Nominative is unavailable in non-finite contexts. As for (10a), it may be stipulated that the lexical DP subject receives a structural case that is not Nominative (Kayne, fn. 22). However, these gerund clauses show a person asymmetry which strikingly recalls the situation of Icelandic Nominative objects: a third person strong pronoun is allowed (if contrastively stressed), whereas first and second person strong pronouns are completely excluded:

- (11) a. LUI ayant résolu le problème, ...
 HIM having solved the problem
 (11) b. * MOI ayant résolu le problème, ...
 ME having solved the problem

Kayne links the ungrammaticality of (11b) to that of (10b), by assuming that first and second person pronouns require clitic doubling, as opposed to third person pronouns. An alternative possibility is to assume that French gerunds lack person agreement, and first and second person pronouns require person agreement with the verb.¹²

The person asymmetry observed for Icelandic Nominative objects and in French gerund clauses can be accounted for by adopting Benveniste's (1966) insight that third person is actually non-person, i.e. absence of any person specification (Kayne 2000a, Rigau 1991, a.o.). The person asymmetry also emerges in various other contexts, e.g. in the Hebrew and Romance pronominal systems (Ritter 1995

¹² This view coincides with Kayne's if we assume, with Kato (1999) that French subject clitics are equivalent to person agreement of *pro*-drop languages in that both are instances of incorporated pronouns. On the other hand, the view proposed here cannot subsume Kayne's analysis of obligatory cliticization of direct object pronouns.

and Kayne 2000b respectively) and in Hebrew and Finnish partial *pro*-drop (Borer 1989; Ritter 1995; Shlonsky 1997; Vainikka & Levy 1999, among others). Let us put it aside for the time being; we will return to it in section 7.3.

Summarizing, I have argued that in some languages Nominative Case is a direct manifestation of person agreement; even when this correlation is not biunivocal, as in Icelandic, it is still the case that those instances of Nominative Case that correlate with person agreement are restricted to finite contexts. The underlying fundamental property is that person agreement is sensitive to finiteness. In order to understand why this is the case, let us investigate more closely the properties that distinguish finite from non-finite tense.

2.2. *Finite Tense*¹³

It is common wisdom that finite tense is independent, whereas non-finite tense is intrinsically dependent. This generalisation is based on the syntactic distribution of finite vs. non-finite forms: non-finite forms are limited to syntactically subordinate clauses.¹⁴ However, the dependent vs. independent status must be explicitly characterized on the semantic side.

An interesting approach to this problem is the view of finiteness elaborated by Holmberg & Platzack (1995), which is synthesized in the following quotation (from Platzack 1995, 201-202):

"Finiteness is a category related to tense and mood; the function of the finite form of the verb seems to be to indicate the existence of a predication *at the time of the utterance*. [...] Thus, in a way, finiteness is a prerequisite for tense and mood: unless a predication is related to the time of the utterance via the concept finiteness, we have no basis for expressing the relative position in time of the situation expressed by the predication vis-à-vis the utterance, and we cannot relate the attitude of the speaker to this situation."

On this view, finite forms have tense and mood independence because they are anchored to the time of utterance.

A similar insight is expressed by Hornstein (1990, 115-117; 146-154) in his neo-reichenbachian analysis of the English tense system. Hornstein argues that English gerund and infinitival forms differ from finite tenses in that their temporal structure lacks the Speech Point S. Since all temporal structures must be ultimately anchored to S, it follows that a non-finite tense cannot constitute an independent main clause, but it must always be connected to a superordinate temporal structure (via the R point). This accounts for the intrinsic dependence of non-finite tenses.

This view is supported by the comparison of Italian finite and non-finite forms in complement clauses. Consider the following examples, in the interpretation in which the embedded Event time (E_2) or Reference time (R_2)¹⁵ overlaps the matrix event time E_1 :

(12) a. Gianni dice [che *pro* è malato] $E_1 = S, E_2 = S, E_2 = E_1$
Gianni says that (he) is ill

¹³ In the following discussion, I adopt the following abbreviations: S= Speech time; R= Reference time; E= Event time; < means temporal precedence, = temporal overlapping, > temporal subsequence.

¹⁴ With very few exceptions, e.g. matrix infinitival questions and the independent infinitives discussed in Pérez Vázquez (2001, 170-177).

¹⁵ Compound tenses encode a relation $E < R$ and R is related to S; I assume that non-compound tenses do not have an R point, but the E point is directly related to S, as proposed by Bertinetto (1986).

b. Gianni disse [*che pro* era malato] $E_1 < S, E_2 < S, E_2 = E_1$
 Gianni said that (he) was ill

(13) a. Gianni dice [*che pro* ha/*aveva già comprato il pane] $E_1 = S, R_2 = S, R_2 = E_1, E_2 < R_2$

G. says that (he) has/*had already bought the bread

b. Gianni disse [*che pro* aveva/*ha già comprato il pane] $E_1 < S, R_2 < S, R_2 = E_1, E_2 < R_2$

G. said that (he) *has/had already bought the bread

Let us dub this the "simultaneous" reading: E_2 or R_2 is simultaneous with the matrix E_1 . Note that the embedded finite verb forms vary as a function of the relation of E_2 or R_2 to S : the present forms in (12a) and (13a) encode a relation of overlapping with S , whereas the past forms in (12b) and (13b) encode a precedence relation.¹⁶ On the contrary, a non-finite form shows no such sensitivity to S : in the equivalents of both (12a) and (12b), the simple infinitive is used to express overlapping between E_2 and E_1 (14); in the equivalents of both (13a) and (13b), the compound infinitive form is used (15).

(14) a. Gianni dice [*di PRO* essere malato] $E_1 = S, E_2 = E_1$

G. says to be ill

b. Gianni disse [*di PRO* essere malato] $E_1 < S, E_2 = E_1$

G. said to be ill

(15) a. Gianni dice [*di PRO* aver già comprato il pane] $E_1 = S, R_2 = E_1, E_2 < R_2$

G. says to have already bought the bread

b. Gianni disse [*di PRO* aver già comprato il pane] $E_1 < S, R_2 = E_1, E_2 < R_2$

G. said to have already bought the bread

These data suggest the following hypothesis:

(16) a. A finite verb form necessarily encodes the relation of E/R to S (in languages with absolute tense).¹⁷

b. A non-finite form does not encode any relation to S .

Note that (16a) is a very strong claim, which is not endorsed in many analyses of "Sequence of Tense" (including among others Abusch 1997; Comrie 1985, 107-117; Higginbotham 2001; Hornstein 1990, chapter 4; Stowell 1997). In these approaches, S is just a default value for the Local Evaluation Time of

¹⁶ An embedded Pluperfect is obviously possible in (13a) in a non-simultaneous interpretation, in which R_2 does not coincide with the matrix E_1 but it is a contextually relevant past time point.

¹⁷ (16a) only holds in languages with absolute tense (in the sense of Comrie 1985). In languages with relative tense, such as Russian, a matrix verb form is anchored to S (i), but an embedded finite form is clearly anchored to the matrix Event time (ii):

(i) Maria spít'.
 Mary sleep-PRES

'Mary is sleeping'

(ii) Ivan skazal, cto Maria spít'.

Ivan say-PAST that Mary sleep-PRES

'Ivan said that Mary was sleeping'

I will return to this problem in section 7.2.

a finite tense that is not embedded in a complement clause. When a finite tense is embedded in a complement clause, its Local Evaluation Time is not S, but rather, the matrix E point.¹⁸

I depart from these approaches in claiming that a finite form is *always* and *intrinsically* anchored to the S point,¹⁹ and therefore, the tense morphology of the embedded finite forms in (12) and (13) corresponds to a contentful Tense head, and it is not simply an "agreement" reflex of the matrix tense. A full discussion of this issue would lead us too far afield; I will simply refer the reader to Zagona (2001) and Boogaart (1996) for two approaches to Sequence of Tense phenomena that are consistent with (16a).

There are various possible ways to syntactically implement hypothesis (16). Most syntactic approaches to temporal structure assume that the reichenbachian time points and their relations are encoded in designated functional projections of the clausal structure.²⁰ In line with these approaches, I propose the following hypothesis:

(17) The Speech time S is syntactically represented in [+finite] Fin⁰, the lowest head of the Complementizer system interfacing with the inflectional structure (Rizzi 1997).

(18) [Force [(Topic*) [(Focus) [Fin [... Tense VP]]]]
₁ S

This hypothesis immediately yields a welcome consequence: even Finiteness, the only head of Rizzi's (1997) Comp system which seems to encode a purely grammatical feature, actually contains [+interpretable] information, in line with Chomsky's (1995, 378) minimalist demands: "The only functional categories are those that survive through the derivation and appear at the interfaces, where they are interpreted".

2.3. Licensing the Person feature

At this point, we can restate (9) as follows:

(19) Only a [+finite] structure encoding S licenses person agreement (Person → S).²¹

The next question is, why does person agreement depend on the specification of S?

A possible answer emerges if we conceive of S as a speech *event* rather than simply a time point.²² As Jakobson (1971, 134) synthetically puts it:

¹⁸ As is overtly the case in languages with relative tense (cf. the preceding footnote). It is also assumed that embedded finite tense can, under special circumstances, be anchored to both S and the matrix event, giving rise to the so called "Double Access Reading" (see Abusch 1997, Giorgi & Piansi 1999, Higginbotham 2001 and Zagona 2001).

¹⁹ Again, this does not hold for languages with relative tense like Russian: see section 7.2 below. On the subjunctive, see section 6.

²⁰ See for instance, among many others: Ambar (1996); Cinque (1999); Cowper (1998); Giorgi & Piansi (1999, 2000); Stowell (1997); Zagona (1995).

²¹ On inflected infinitives, see Bianchi & Pérez Vázquez (in preparation) and section 7.1.

²² Cf. Higginbotham (2001, 70).

"Person characterizes the participants of the narrated event with reference to the participants of the speech event".

In other terms, the referential feature of Person can only be interpreted in relation to the speech event S: first person denotes the "addresser in S", second person denotes the "addressee in S", and third person denotes the complement set, i.e. anyone and anything else.²³ From this perspective, we can conceive of the speech event as the *centre of deixis*, which specifies (at least):

- the addresser/speaker (= first person)
- the addressee (= second person)
- the spatial/temporal coordinates (= on the temporal axis, the Speech point).²⁴

I propose that the interpretive dependence between the person feature and the centre of deixis is reflected in the syntax by the following licensing condition :

(20) The Person feature is selected by Fin⁰ endowed with S.

It is immaterial here whether the Person feature is syntactically realised on T, AgrS, or as an independent head; the present analysis only implies that it is realised in the inflectional head that is directly selected by Fin⁰.²⁵

In conclusion, I have offered the following answers to our initial questions:

- (i) The crucial property that distinguishes [+finite] from [-finite] tense is the presence vs. absence of the Speech event. This information is syntactically encoded in the Fin⁰ head.
- (ii) Nominative Case is sensitive to finiteness insofar as it is a manifestation of person agreement. The person feature is licensed in a local selectional relation with the Speech event, which constitutes the centre of deixis w.r.t. which the person feature is interpreted.

3. Interlude I: logophoric centres

The Speech event as a centre of deixis seems to be a universal property of human languages (cf. Anderson & Keenan 1985). However, in some languages deixis can be relativized to other "internal" centres of deixis. A particularly clear example is the phenomenon of logophoric pronouns (and logophoric agreement), exemplified in (21):

(21) Donno **S0**
Oumar Anta inyemeñ wa be gi.

²³ I leave aside politeness uses of third person. Plural first and second person denote (apart from politeness uses) groups including at least the addresser and addressee, respectively, with further possible sub-specifications, like inclusive and exclusive plural first person. For further refinement of the notions of addresser and addressee, see McCawley (1998).

²⁴ I will use the abbreviation S to refer to the whole centre of deixis. The spatial and temporal coordinates may be dissociated for the addresser and addressee; in this case, S is usually the speaker's temporal coordinate, as discussed by McCawley (1998). For the sake of simplicity, I will leave aside this complication here.

²⁵ A related but distinct problem is whether the different values of the person features are projected independently: I will return to this point in section 7.3.

(23)Parameter: Person agreement is licensed by an internal logophoric centre.

It has been extensively argued in the literature that logophoricity is relevant also for apparently "non-logophoric" languages like English, Italian or Icelandic (Kuno 1987), most notably in the phenomenon of long-distance anaphors (see Cole, Hermon & Huang 2001 for a very recent general overview). In the following discussion, I will argue that internal logophoric centres play an even more central role than previously acknowledged in the syntax of these languages.²⁷

Before that, however, I wish to briefly discuss the internal structure of the logophoric centre.

The first and seminal formal approach to logophoricity is found in Sells (1987), who proposes three distinct logophoric roles to be assigned to animate referents in Discourse Representation Structures:

SOURCE = the one who makes the report (for example, the speaker)

SELF = the one whose "mind" is being reported

PIVOT = the one from whose physical point of view the report is made.

The SOURCE may be external or internal, corresponding to my informal notion of external and internal speaker. (On the other hand, there is no role for the addressee in Sells's theory, contrary to Kuno's (1987, chapter 3) "direct discourse perspective").²⁸ The PIVOT role recalls the spatial and temporal coordinates proposed above: however, in Sells's approach these coordinates are thought of as properties of a participant in the speech event, rather than of the speech event itself. The reason is presumably that the spatial/temporal coordinates can also be associated with the subject of a mental state. For instance, on Sells's analysis the English possessive *own* requires an antecedent that bears the PIVOT role. The subject of the matrix psychological predicate in (24) can evidently bear this role (as shown by the use of the deictically-oriented verb *come*):

(24)He_i was happy when his_i own mother came to visit him_i in the hospital. (Sells 1987, 465)

The point is that the spatial coordinates are properties of the protagonist, but obviously not of the mental state itself. Note however that mental states do have *temporal* coordinates. If we wish to integrate temporal structure in the present perspective, it is desirable to assume that the logophoric centre directly encodes the time coordinates. A full discussion of this issue exceeds the limits of the present study; for the time being, I will put aside the PIVOT role and I will maintain the spatial/temporal coordinates as proposed above.

The less easily definable role is that of SELF. This logophoric role is assigned to the subject of psychological predicates, which does not bear the SOURCE role. In some logophoric languages such as Ewe, the subject of a psychological predicate can be the antecedent of a logophoric pronoun; Sells claims that in such languages logophoric pronouns are SELF-oriented.

A reinterpretation of the SOURCE and SELF roles in formal semantic terms has been proposed by Chierchia (1989) (whose analysis is mainly concerned with the Italian long-distance anaphor *proprio*). Chierchia reduces these roles to a general theory of *de se* attitudes. A *de se* attitude is a self-ascriptive relation between a referent *x* and a property *Q*, whereby (informally) *x* believes himself to have property *Q*. A *de se* attitude as defined by Chierchia always implies an at least potential SOURCE, since by definition, "*x* is disposed to describe the relevant belief by referring to *x* by means of the first person

²⁷ I will refer to languages with overt logophoric pronouns and/or agreement with the label "strongly logophoric languages", where "strenght" means morphological overtiness.

²⁸ Sells (fn. 19) suggests that the notion of addressee may be made parasitic on the notion of speaker.

pronoun" (Chierchia 1989, 8). This proposal has been accepted and elaborated by various authors, including Cole et al. (2001) and Huang & Liu (2001) (see also Pan 2001 for a similar proposal).²⁹

Clearly, the notion of logophoric centre that I have proposed - a generalization of the notion of centre of deixis - is very different from Sells's and Chierchia's approaches to logophoricity. The basic difference is that logophoric roles and *de se* attitudes are properties attributed to human/animate referents, whereas the logophoric centre is *primarily an event* (or state), which implies human/animate participants playing a certain role in that event. As we have seen, this perspective allows us to establish a relation between person agreement and finiteness. However, it is admittedly difficult to integrate into this perspective the notion of SELF (which will play an important role in the following discussion).

One possible path to explore is to rethink of the notion of SELF in terms of a *cognitive state* associated with a speech event. In a "Stalnakerian" perspective,³⁰ the participants in a speech event share a Common Ground of accepted information, i.e. a set of background assumptions that both of them take to be true at a specific point of the conversation. As assertion by a speaker has the effect of updating the Common Ground. The assertion itself may be taken to reflect the cognitive state of the speaker who makes it; however, the SELF role has a direct impact on the way in which the relevant assertion is integrated in the Common Ground. To see this, compare the following assertions:

(25) Wagner's music is intolerable.

(26) To me, Wagner's music is intolerable.

When a speaker asserts (25), he intends to introduce the associated proposition in the Common Ground; namely, he wants his addressee(s) to accept the proposition as true. But a speaker who asserts (26) has a very different aim: he doesn't want the addressee(s) to accept the proposition that Wagner's music is intolerable, but rather, he wants the addressee(s) to know that he himself believes the relevant proposition. The truth of the proposition is thus relativized to the speaker's own cognitive state.³¹ Thus, the SELF role (expressed by the clause-initial adjunct PP) signals the fact that the propositional content of the assertion must not be embedded directly in the Common Ground, but in a "private" cognitive state.³²

At this point, this is only a tentative suggestion. The important point is that a cognitive state may be associated not only to speech events, but also to other mental events or states that can be linguistically reported, for instances beliefs, hopes, etc. I wish to suggest that this is how these non-communicative

²⁹ See Higginbotham (1992) for a criticism. Another approach attributes to SOURCE and SELF a "validating" function: cf. Huang (2000, 200) quoting a proposal by Stirling (1993), and Sigurdsson's (1990) truthfulness-responsibility. Koopman & Sportiche (1989) instead propose a completely syntactic approach to logophoricity in Abe; Manzini & Roussou (1999) propose a syntactic analysis of the logophoric interpretation of *self*-anaphors in terms of feature attraction.

³⁰ The importance of the Common Ground and of the opposition between objective vs. subjective point of view is highlighted and discussed in detail in Pérez Vázquez (2001, chapters 6 and 7). Here I am capitalizing on her findings.

³¹ Not every assertion or question can be felicitously relativized in this way. Thus, relativization is felicitous in (i) but not in (ii).

(i) To me, U2's best LP is "The Joshua Tree".

(ii) ! To me, U2's latest LP is "Everything you can't leave behind".

Presumably, relativization is appropriate only when the relevant proposition expresses a "judgement" rather than a state of affairs. I will not try to develop this point here.

³² Here, contrary to Sells's analysis, the speaker's cognitive state is not the default; the default is rather the Common Ground.

events can constitute internal logophoric centres, qualifying the complement clause of a psychological or epistemic³³ predicate as a logophoric clause.

In conclusion, in this paper I will maintain the view that the logophoric centre is an event, endowed with (possibly spatial and) temporal coordinates, and logophoric roles correspond to participants in it. I will use the generic label "internal participants" for the participants of the various types of internal logophoric centre: the addresser and addressee of a speech event, and the "subject" of mental eventualities. With this background, we can move on to consider the status of the subject position in non-finite clauses.

4. *Control clauses*

"What elements/positions can be controlled? [...] Most probably, PRO only occurs in the subject position of non-finite clauses. [...] The history of this problem, from the PRO-theorem (Chomsky 1981) until the null case analysis (Chomsky & Lasnik 1993), has never succeeded in deriving this fact without recourse to some special stipulations; perhaps the distribution of PRO is an irreducible fact about UG." (Landau 1999, 2)

This quotation suggests that, despite the considerable attention devoted to the topic of control in recent minimalist research,³⁴ the question of why certain positions and not others must be controlled has not received a satisfactory answer yet. In this section I will show that my approach to finite person agreement can be fruitfully extended to control structures so as to provide a possible answer.

4.1. *Person agreement and referential independence*

At first sight, it appears that control clauses lack subject agreement altogether, not only morphologically but also syntactically. However, Borer (1989) and Landau (1999) have proposed that the phenomenon of control is the manifestation of a morphologically abstract anaphoric Agr projected in the functional structure of control clauses.³⁵

Anaphoric Agr differs from finite clause Agr in two respects. First, it requires an antecedent. Second, it cannot license Nominative Case on lexical DPs.

This latter qualification is very important. Other approaches to control exclude in principle the possibility for control Tense to license any instance of Nominative Case.³⁶ However, Sigurdsson

³³ Despite the definition of SOURCE as an intentional agent of communication, Sells seems to group epistemic verbs with declarative verbs as involving an internal SOURCE (under the label "logophoric verbs"). From the present perspective, only the subject of a verb of communicative behaviour is an internal speaker; the subject of both epistemic and psychological verbs is the internal participant of a different type of logophoric centre, which consists in a mental eventuality. Direct perception verbs (Culy 1994, Speas 2001) express yet another type of mental event.

³⁴ Cf. at least: Boskovic (1997), Hornstein (1999), Landau (1999), Manzini & Roussou (1998), Martin (2000), O'Neil (1997), Ormazabal (1994), Petter (1998), Wurmbrand (1998).

³⁵ Borer (1989) argues that anaphoric Agr also occurs in certain finite clauses, e.g. in Hebrew past and future tense clauses with third person controlled *pro*. The issue of controlled *pro*-drop, although directly relevant, exceeds the limits of the present paper.

³⁶ In GB Control Theory, non-finite Tense fails to govern its subject position; PRO is ungoverned and a fortiori lacks Case. In the Null Case approach, the subject position of control clauses receives Null Case, a "weak" counterpart of Nominative which can only be borne by the minimal category PRO, lacking both lexical content and intrinsic referential properties. In Hornstein's (1999) movement approach, the subject position of control

(1991) has convincingly argued that PRO in Icelandic does bear Nominative Case, although this fails to be phonologically spelled out. Petter (1998, 96-101) generalizes this conclusion, arguing that controlled PRO generally bears Nominative Case.

Furthermore, Borer (1989) points out that Nominative Case may be overtly realised on a pronominal DP in certain control clauses, as in the Italian example (27a). Crucially, the overt Nominative pronoun exhibits the typical properties of a controlled subject, requiring an antecedent; a referentially independent DP, whether pronominal (27b) or lexical (27c), cannot be licensed in the same context.

- (27) a. Ho deciso [di andarci io].
have-1SG decided to go-there I-NOM
'I decided to go there myself.'
(27) b. * Ho deciso [di andarci tu].
have-1SG decided to go-there you-NOM
c. * Ho deciso [di andarci Maria].
have-1SG decided to go-there Maria

A lexical DP - i.e., an R-expression - is intrinsically referentially independent (cf. Higginbotham 1983). Pronouns may be referentially independent or not:³⁷ the pronoun in the infinitival clause of (27a) is not, whatever analysis one adopts for it.³⁸ From this perspective, Nominative Case licensing on the subject of a finite clause amounts to the possibility for person agreement to license a referentially independent DP.

Let us label this type of person agreement [+R]. I now propose that the universal licensing principle (20) specifically concerns [+R] person agreement:

(20') The [+R] person feature is selected by a Fin^0 head encoding the external logophoric centre (S).

On the other hand, I will argue that [-R] person agreement, i.e. the "anaphoric" person agreement involved in control, is universally licensed by an *internal* logophoric centre in non-finite clauses.

4.2. *Non-obligatory vs. obligatory control: Landau (1999)*

Since Williams's (1980) seminal work, two different varieties of control have been distinguished and variously characterised, namely obligatory and non-obligatory control. Most analyses agree on the idea that obligatory control is basically anaphoric, whereas non-obligatory control has a more pronominal character. Setting aside the different theoretical approaches, even on the empirical side there is no consensus in the literature on the classification of certain instances of control as either obligatory or non-obligatory. Landau's (1999, chapter 3) excellent study provides a detailed overview of the problem. In this study I will adopt without discussion Landau's classification, which is innovative in various important respects.³⁹

clauses actually contains a trace of the moved "antecedent"; by the Last Resort principle, this position does not check Case.

³⁷ This proposal differs from Reinhart & Reuland (1993) and Reuland & Reinhart (1992), who claim that all pronouns are referentially independent.

³⁸ Here I will not discuss the nature of such "emphatic" pronouns; for recent discussion, see Belletti (1999) and Cardinaletti (1999)

³⁹ Most notably, Landau rejects some standardly assumed properties of obligatory control: (a) the necessity of a syntactically explicit antecedent, (b) the requirement for the controller to c-command the controlled position, and

Specifically, Landau argues that obligatory control is found in transparent infinitival clauses which occupy a VP-internal position at LF; the controller is a DP in the immediately superordinate clause. This is because anaphoric Agr must be licensed by an AGREE relation with a higher functional head (T or v) endowed with phi-features, and the AGREE relation is constrained by the Phase Impenetrability Condition.

Non-obligatory control⁴⁰ is found instead in all infinitival clauses that constitute islands, including adjunct, extraposed, and certain subject infinitival clauses. The island boundary blocks the AGREE relation: hence anaphoric Agr and PRO cannot be syntactically licensed. Here Landau adopts and generalises Reinhart & Reuland's (1993) proposal that anaphoric elements that fail to be syntactically licensed receive a logophoric interpretation, which is not syntactically constrained, but is only subject to discourse factors.⁴¹ Like English SELF-anaphors, anaphoric Agr and PRO that fail to be syntactically licensed are interpreted logophorically.

In the following subsections, I propose a reinterpretation of the Borer/Landau approach, integrating it into a general theory of logophoric centres.

4.3. *Non-obligatory control*

Let us begin with non-obligatory control. Various arguments in support of its logophoric nature have been provided by Kuno (1987, 134-135), Landau (1999), and Williams (1992, 1994).

First of all, the controller is necessarily animate, as shown by the contrast in (28):

- (28) a. Having just arrived in town, the new hotel seemed like a good place for a stop.
 b. * This open window_i proves that [before breaking]_j, it was raining. (Williams 1992, 299)

This constraint follows from the hypothesis that non-obligatory control is logophorically oriented, since only an animate referent can bear a logophoric role.

This hypothesis is further supported by the following contrast, pointed out by Landau (1999, 120):

(c) the impossibility of split antecedents. His classification is based on different diagnostic properties, which are summarized in the following table (from Landau 1999, 31).

	Obligatory Control	Non-Obligatory Control
arbitrary control	-	+
long distance control	-	+
<i>strict</i> reading	-	+
<i>de re</i> (vs. <i>de se</i>) reading	-	+

Although it is impossible here to summarize Landau's analysis, two clarifications are in order. First, Landau carefully distinguishes real arbitrary control from "partial control", in which the controlled position denotes a group of referents including the controller (see below). Second, since on his analysis obligatory control allows for implicit controllers, some apparent instances of long-distance control are reanalysed as instances of local control involving an implicit antecedent.

⁴⁰ This corresponds to Culicover & Jackendoff's (2001) H-nonobligatory control.

⁴¹ Landau does not address the question of why the emerging interpretation is the logophoric one. See Reuland (2001) for an explicit proposal on this point (also discussed in section 7.3 below).

- (29) a. Having been away for so long, nothing really matters to John.
b. * Having been away for so long, nothing really bears on John.

In both sentences the controller (*John*) is animate; however, control is only possible in (29a), where it constitutes the "centre of consciousness", and impossible in (29b), where it does not. This shows that the animacy constraint cannot be reduced to a (stipulated) [+animate] feature intrinsic to the empty category involved in non-obligatory control.⁴²

Second, the controller need not coincide with an explicit or implicit argument of the immediately superordinate clause; it may even be introduced in a preceding sentence, as shown in (30).

- (30) a. John even shaved for the interview. [Making himself presentable] was essential to the success of the project. (from Hornstein 1999)
b. [Having travelled all day], the hotel was a vision indeed. (from Williams 1992, 300)

Although the second matrix clause of (30a) does not contain any implicit or explicit argument coreferent with *John*, it is clear that the whole sentence expresses a subjective judgement by John, i.e., John is the "centre of consciousness". Similarly, in (30b) the person who has travelled all day is the person who perceives the hotel as a vision.

A somewhat different type of logophoric effect is observed by Kuno (1987, 134-135) (see also Landau 1999, 119-120):

- (31) a. John said to Mary that it would be easy [to prepare herself for the exam].
b. * John said about Mary that it would be easy [to prepare herself for the exam].

In (31a) Mary is a participant in the speech event described by the matrix clause, hence it bears a logophoric (ADDRESSEE) role. In (31b), instead, Mary is not a participant in a speech event and is not an available controller.

On the basis of this evidence, I adopt the hypothesis that non-obligatory control requires a logophoric controller. This hypothesis can be derived from an extension of the present approach to person agreement.

Recall from section 2.2 that the crucial property of non-finite clauses is the lack of the S point in their temporal structure. This means that non-finite clauses do not encode the external logophoric centre in their Fin⁰ head. What is then the nature of the Fin⁰ head in non-finite control clauses? I propose the following hypothesis:

- (32) A [-finite] Fin⁰ head encodes an *internal* logophoric centre.

In non-obligatory control clauses, the internal logophoric centre is contextually licensed on a semantic/pragmatic basis;⁴³ it does not necessarily correspond to an Event position syntactically

⁴² The [+animate] feature is also intrinsic to the so-called arbitrary interpretation, which Landau considers an instance of non-obligatory control. The arbitrary interpretation also emerges with null direct objects (*pro* according to Rizzi 1986) and null subjects of impersonal sentences (Cinque 1988). The relation between logophoricity and arbitrary interpretation is not entirely clear (see Landau 1999, 82 ff., quoting unpublished work by A. Kratzer). I leave this problem for future research.

⁴³ The same holds in matrix infinitival questions.

projected in the superordinate structure. In the examples (30), for instance, it corresponds to a contextually relevant mental state of a human referent (John in (30a); an unspecified referent in (30b)).

Crucially, the internal logophoric centre encodes at least one participant (i.e. the participant(s) in a speech event, or the "subject" of a mental state). I propose that the internal participant(s) are the only possible values for the [-R] person feature locally licensed by the internal logophoric centre:

- (33) The internal participants of an internal LC are the only possible values for the locally licensed [-R] person feature.

The next question is, why should the [-R] person feature be defective in this way?

In order to address this question, let us reconsider the nature of [+R] person. Recall that a [+R] person feature is one that can license a referentially independent DP. This means that for any DP, its referential index can be identified as corresponding to the speaker or the addressee, or as falling in the complement "third person" set. This is only possible if the referential index of the speaker and of the addressee is stored in the local external logophoric centre. An internal logophoric centre does not provide this information: it only identifies its internal participants, but the status of the latter with respect to the external logophoric centre (or with respect to any other superordinate logophoric centre) remains locally undefined. I propose that this is why the person feature licensed by a subordinate internal logophoric centre cannot exhaustively classify referentially independent expressions in disjoint subsets; therefore, it cannot be [+R].⁴⁴

4.4. *Obligatory control*

According to Borer (1989) and Landau (1999), obligatory control is an instance of anaphoric Agr.

I propose here a different though related approach: obligatory control is a manifestation of an *anaphoric* logophoric centre. The [-finite] Fin⁰ head of the infinitival complement clause takes as an antecedent the matrix clause Event, which I tentatively assume to be syntactically realised in the V⁰ head. This means that the matrix clause Event establishes an internal logophoric centre to which the complement clause is anchored, exactly as is the case in logophoric complement clauses of "strongly logophoric" languages (cf. the discussion around (21) in section 3):

- (34) [IP V⁰ [FinP Fin⁰ IP]]
 1 **1**
 E_i LC_i

This hypothesis immediately entails two consequences.

First, since the [-finite] Fin⁰ head of obligatory control clauses is intrinsically anaphoric, we predict that obligatory control will only be possible when the matrix clause denotes an event that may establish an internal logophoric centre: that is, either a speech event or a "mental eventuality" (cf. the discussion in section 3).

⁴⁴ This line of reasoning leads to the assumption that the morphologically overt person agreement in examples (22) is [-R], since by hypothesis it is licensed by an internal LC. Woolford (1999, 270) mentions that in Tamil the embedded verb form may also have non-relativized person deixis, which would correspond to [+R] person locally licensed by the external LC. I am unable to develop this point.

Second, obligatory control is a manifestation of the [-R] person feature locally licensed by [-finite] Fin⁰. Therefore, the "obligatory controller" is an internal participant of the logophoric centre encoded in Fin⁰: it follows that

- a) the "controller" necessarily has logophoric status;
- b) by the anaphoric nature of the Fin⁰ head, it corresponds to a participant in the matrix clause Event. This accounts for the strict locality of obligatory control.

In support of the logophoric nature of obligatory control, I will provide two types of arguments. In the remainder of this section I will show that obligatory control is subject to an animacy constraint, which is a diagnostics for the logophoric status of the controller. In sections 4.5-4.7, I will show that some special properties of obligatory controlled PRO, discussed by Landau (1999), are also shared by logophoric pronouns and logophoric long-distance reflexives.

4.4.1. Williams (1992, 308) notes that in most obligatory control contexts the controller is a "thinker or perceiver", hence it has logophoric status. One exception is the verb *serve*, whose infinitival complement is controlled by an inanimate subject (35a). Note however that if we introduce a potential animate controller in the matrix clause, as a benefactive Dative, control by the inanimate subject becomes impossible (35b), and the Dative argument becomes the obligatory controller (35c):

- (35) a. Questa scatola_i serve [[?]per/a e_i contenere oggetti fragili].
this box serves for/to contain fragile items
- b. * Questa scatola_i mi serve [per/a e_i contenere oggetti fragili].
this box to-me serves for/to contain fragile items
- c. Questa scatola mi_i serve [per/?a e_i metterci oggetti fragili].
This box to-me serves for/to put-in-it fragile items

The matrix verb in (35a) does not denote a speech or mental event that may establish an internal logophoric centre; therefore, (35a) cannot be an instance of obligatory control as defined here. (I will return to its status in section 4.5 below).

In (35b), instead, the projection of the benefactive Dative qualifies the matrix event as a potential internal logophoric centre, because the matrix event can be associated with a cognitive state⁴⁵ of the referent of the benefactive Dative. This provides an antecedent LC for the [-finite] Fin⁰ head, yielding obligatory control (35c).

4.4.2. Pérez Vázquez (2001, 213) points out that in certain modal contexts the explicit realization of an ethical Dative necessarily creates a context of obligatory control (36c), disallowing a finite complement clause (36d):

- (36) a. E' difficile/impossibile [andare a Madrid domani].
(it) is difficult/impossible to-go to Madrid tomorrow
- b. E' difficile/impossibile [che tu vada a Madrid domani]
(it) is difficult/impossible that you go-SUBJ to Madrid tomorrow
- c. Mi è difficile/impossibile [andare a Madrid domani]
to-me (it) is difficult/impossible to-go to Madrid tomorrow
- d. * Mi è difficile/impossibile [che tu vada a Madrid domani]
to-me (it) is difficult/impossible that you go-SUBJ to Madrid tomorrow

⁴⁵ A non-objective point of view, in the terms of Pérez Vázquez (2001, 211-212).

Landau (1999b, 220-221) argues that the modal predicates in (36c,d) are dyadic, and since the infinitival clause occurs in VP-internal position at LF, it is subject to obligatory control. But note that, crucially, the Dative controller is necessarily animate: (37a) cannot have the same meaning as (37b):⁴⁶

- (37) a. *! (Quanto a questa macchina_i), le_i è impossibile [funzionare].
 (as for this machine), to-it (it) is impossible to work
 b. Questa macchina non è in grado di funzionare.
 lit. this machine is not able to work
 'This machine cannot work.'

Once again, the explicit realisation of the Dative argument qualifies the matrix Event as an antecedent for the anaphoric Fin⁰ head of the complement clause (36c). Note that here what is obligatory is not only the controller, but the control relation itself: cf. the ungrammaticality of (36d). This may be related to the nature of the ethical Dative: this argument does not bear a standard thematic role, like Goal or Experiencer, but it realises the subject of a mental state in which the matrix predication is held to be true (i.e., a subjective evaluation of the situation described by the complement clause; cf. the ungrammaticality of (37a)). A possible guess is that this more complex conceptual structure, introducing a logophoric centre, is projected only when necessary to license a control complement clause.⁴⁷

4.4.3. The verbs *minacciare* 'threaten' and *promettere* 'promise', when selecting an infinitival complement, can take animate or inanimate subjects, with different meanings. In particular, with inanimate subjects the only possible interpretation is close to an epistemic possibility modal (with additional connotations).⁴⁸ With an animate subject, it is also possible to have an agentive intentional interpretation.

Interestingly, there is evidence to the effect that on the epistemic modal interpretation these verbs necessarily take a raising complement (39),(41), whereas on the agentive interpretation, they take a control complement (38), (40). The evidence comes from the contrast in the possibility of clefting the infinitival complement: as discussed by Rizzi (1990, 38) and Chomsky (1999), only a control clause, but not a raising clause, can be clefted.

- (38) a. Gianni minaccia [di vendicarsi].
 G. threatens to take -evenge
 b. ? E' [di vendicarsi] che Gianni minaccia.
 (it) is to take-revenge that G. threatens
 (39) a. L'edificio minaccia [di crollare].
 the building threatens to collapse
 b. * E' [di crollare] che l'edificio minaccia.
 (it) is to collapse that the building threatens
 (40) a. Gianni promette [di essere fedele a Maria].
 Gianni promises to be faithful to Mary
 (40) b. ? E' [di esserle fedele] che Gianni promette.

⁴⁶ (37a) is only acceptable if we somehow "personificate" the machine in question; cf. Williams (1992).

⁴⁷ I take (36a) to involve obligatory control by an implicit ethical Dative. (Recall that I adopt Landau's (1999) proposal that implicit arguments are visible for obligatory control.) Here too, the implicit controller is necessarily animate.

⁴⁸ On this meaning, the verbs are stative and resist a perfective punctual interpretation.

- (it) is to be-to-her- faithful that Gianni promises
- (41) a. La giornata promette [di essere buona].
 the day promises to be sunny
- b. * E' [di essere buona] che la giornata promette.
 (it) is to be sunny that the day promises

This asymmetry suggests that we can have a real control structure only when there is a potential animate controller. This follows from the hypothesis that even in obligatory control, the controller must have a logophoric status.⁴⁹

The asymmetry is actually deeper, confirming also the first prediction of my proposal. In the epistemic modal interpretation, which does not license a control complement clause, the matrix clause does not introduce any suitable internal logophoric centre.⁵⁰ On the contrary, the intentional interpretation associated with a control complement does introduce an internal logophoric centre, consisting in a speech event.

4.4.4. Obligatory control obeys a logophoric constraint similar to that observed in (31) for non-obligatory control. The verbs *volere* 'want', *aspettarsi* 'expect', *pretendere* 'require' and *ottenere* 'obtain' normally have subject control (42). These verbs may also take an *of*-phrase which necessarily corefers with the subject of a following subjunctive complement (43).⁵¹ However, the same *of*-phrase cannot control into an infinitival complement (44). Crucially, the *of*-phrase bears no logophoric role; in fact, it does not denote a participant in the matrix clause event/state (cf. Kuno 1987, 116-117).⁵²

- (42) a. Gianni_i pretende [di *e_i* vincere sempre].
 Gianni requires to win-INF always
- b. Gianni_i si aspetta [di *e_i* vincere sempre]
 Gianni expects to win-INF always
- (43) a. Gianni pretende da Maria_i [che *e_i* vinca sempre].
 Gianni requires of Mary that (she) win-SUBJ always
- b. Gianni si aspetta da Maria_i [che *e_i* vinca sempre].

⁴⁹ Other evidence that is consistent with this conclusion is analysed in Landau (1999, chapter 4). Landau shows that the adjective *ready* is ambiguous between a psychological interpretation, involving an animate Experiencer, and a non-psychological one; he argues convincingly that on the former interpretation the adjective selects for a real control complement, whereas on the latter interpretation it licenses a predicative infinitival clause. Landau offers a very interesting explanation for this contrast in terms of general semantic principles. The point of interest here is that the empirical contrast is consistent with the present view of obligatory control as inherently logophoric.

⁵⁰ It may be objected that the connotations associated to *minacciare* and *crollare* on the epistemic modal interpretation express a "subjective evaluation" by the external speaker. Note however that the speaker wants this evaluation to be accepted by the addressee, rather than being processed as his own private evaluation. An independent question, for which I have no answer, is why these verbs on the epistemic modal interpretation cannot license an ethical Dative analogous to that of (36c,d) above.

⁵¹ With the verb *ottenere* 'obtain' coreference is optional.

⁵² See also Farkas (1988). Note that in (43) the object of the *of* phrase bears the RESP relation to the situation denoted by the complement clause (namely, it is the initiator of the situation); nevertheless, control in (44) is impossible, as opposed to (42), where the matrix subject bears the RESP Relation and also has a logophoric status. It may be objected that the DP embedded in the *of*-phrase fails to c-command outside the PP, and hence cannot control for lack of c-command. Here I follow Landau in rejecting the c-command requirement; anyway, the principle C effect in (i) suggests that the DP does c-command the complement clause:

- (i) ?* Gianni si aspetta da lei_j [che Maria_j vinca sempre].
 Gianni requires of her that Mary win-SUBJ always

- Gianni expects of Mary that (she) win-SUBJ always
- (44) a. * Gianni pretende da Maria_i [di e_i vincere sempre].
Gianni requires of Mary to win-INF always
- b. * Gianni si aspetta da Maria_i [di e_i vincere sempre].
Gianni expects of Mary to win-INF always

4.4.5. One problem that seems at present irreducible is that of controller choice. When the matrix clause introduces more than one argument, the anaphoric LC of the infinitival clause contains more than one internal participant; thus, in principle, there is more than one possible value for the licensed [-R] person feature. As is well known, the actual value - i.e., the controller - is jointly determined by the semantics of the matrix verb and of the infinitival verb: it may be the matrix subject, the object, or both (cf., among many others, Farkas 1988, Pollard & Sag 1994, chapter 7, and Landau 1999, chapter 5 for a recent overview).

Restricting our attention to the subset of matrix illocutive verbs denoting a speech act, an obvious regularity emerges if we adopt Kuno's Direct Discourse Perspective. In general, the subject of the active clause is the Speaker and the object is the Addressee. The Speaker corresponds to the internal first person, and the Addressee to the internal second person. It is easy to see that in the infinitival complement, the controlled implicit subject takes as a controller the internal first or second person according to which of these would be the subject of the equivalent direct discourse (cf. Kuno 1972, 171-172; Postal 1970).⁵³

- (45) a. John₁ promised Mary₂ [e₁ to come home early]
"I₁ will come home early"
- b. John₁ ordered Mary₂ [e₂ to come home early]
"You₂ come home early!"
- c. John₁ persuaded Mary₂ [e₂ to come home early]
"You₂ should come home early"
- d. John₁ proposed to Mary₂ [e₁ to write the paper himself]
"I₁ will write the paper myself"
- e. John₁ proposed to Mary₂ [e₂ to write the paper herself]
"You₂ (can) write the paper yourself"
- f. John₁ proposed to Mary₂ [e₁₊₂ to write a joint paper]
"We₁₊₂ (can) write a joint paper"
- g. John₁ asked Mary₂ [e₂ to please come home early]
"Please you₂ come home early"
- (45) h. John₁ asked Mary₂ [e₁ to (be allowed to) write the paper himself]
"May I₁ write the paper myself?"

⁵³ In Romance, pure declarative verbs without illocutive force (e.g. *dire*, *raccontare* 'tell', *confessare* 'confess') can also take control complements; although the subject of the direct discourse is not in principle limited by the matrix verb, the controller is always the internal Speaker (perhaps because it is hierarchically higher than the Addressee?):

(i) Gianni₁ ha detto a Maria₂ [di e₁/*₂ aver commesso un errore].
G. said to M. to have made a mistake

Cf. Kayne (1994, 70), who assumes that in infinitives paraphraseable by indicatives, like (i), PRO is a subject oriented anaphor.

The equivalence between the infinitival complement clause and direct discourse supports the logophoric approach, showing that the "controller" really constitutes an internal Speaker or Addressee of the internal LC of the infinitival clause.⁵⁴

The Direct Discourse Perspective cannot be extended to control verbs that do not denote a speech act, for instance desiderative verbs; for these, other semantic relations have to be invoked, e.g. Farkas's (1988) RESP(ONSIBILITY).⁵⁵ Nevertheless, even in these cases the value of the [-R] person feature is selected among the participants of the internal LC, as expected under the present approach. (Yet other apparently control verbs do not introduce an internal LC: these will be discussed in section 4.5. below.) In conclusion, the logophoric approach can subsume some instances of controller choice, but does not provide a general solution to the problem.

4.4.6. Of course, the reviewed data are far from exhaustive; nevertheless, they seem sufficient to support the logophoric approach to obligatory control, which can be summarised as follows:

- (46) i. In obligatory control clauses, the [-finite] Fin⁰ head encodes an internal logophoric centre which is anaphoric to the matrix clause event (V⁰).
ii. Consequently, the participants in the matrix clause event are internal participants of the internal LC.
iii. The internal participants are the only potential values of the [-R] person feature that is locally licensed by Fin⁰. (The actual value is selected on the basis of semantic criteria that cannot be completely reduced to logophoricity.)

Note that from this perspective, control essentially reduces to the instantiation of a universally available implicit logophoric pronoun. (For the time being, it is immaterial whether the "logophoric pronoun" is syntactically realised as an independent pronominal category (PRO) or consists in the set of Agr features itself, constituting an incorporated pronoun - cf. among others Alexiadou & Anagnostopoulou 1998, Kato 1999, Vainikka & Levy 1999). In the next subsections, I will show that certain properties of control discussed by Landau (1999) are shared by logophoric pronouns and/or logophoric long distance reflexives.⁵⁶

4.5. *Exhaustive vs. partial control*

Landau (1999, chapter 2) distinguishes two subtypes of obligatory control: exhaustive and partial control.

In *partial control*, the referent of PRO includes (properly or improperly) the referent of the controller, and it is not necessarily identical to it.⁵⁷ The partial control effect emerges clearly in examples like

⁵⁴ On the other hand, direct discourse involves a variety of modalities which are not overtly expressed in the infinitival complement: cf. Postal (1970, 469 ff.)

⁵⁵ Actually, most of these verbs fall in the class of exhaustive control: see section 4.5 below.

⁵⁶ This parallelism recalls Chierchia's (1989) unification of control and long distance reflexives under his theory of *de se* attitudes, although the perspective here is very different.

⁵⁷ Landau shows that partial control can be empirically distinguished from arbitrary control: since partially controlled PRO refers to a group that includes the referent of the controller, it gives rise to disjoint reference effects if the infinitival clause contains a pronominal DP coreferent with the controller (cf. Reinhart & Reuland 1993 on principle B effects):

(i) * John₁ wondered [who PRO₁₊ to introduce him₁ to].

(47), where the controller is singular but the controlled infinitival clause contains a collective predicate, requiring a semantically plural subject.⁵⁸

(47) The chair₁ was afraid [PRO₁₊ to gather during the strike].

On the contrary, in case of *exhaustive control* the referent of PRO must be identical to the referent of the controller:

(48) * The chair₁ dared [PRO₁₊ to gather during the strike].

Landau shows that the distribution of partial vs. exhaustive control depends on the temporal value of the infinitival complement, which is in turn determined by the semantics of the selecting verb.

The following predicates have exhaustive control complements:

- a) implicatives: dare, manage, make sure, bother, remember, get, avoid, forget, fail, refrain, force, compel...
- b) aspectual verbs: begin, start, continue, finish, stop, resume...
- c) modal verbs: have, need, may, should, able...

The following predicates instead license partial control (although this is often indistinguishable from exhaustive control):

- d) factive: glad, sad, regret, like, sorry...
- e) propositional: believe, think, suppose, say, claim, imagine...
- f) desiderative: want, prefer, hope, afraid, refuse, agree, decide, demand, promise, offer, choose, eager, ready...
- g) interrogative: wonder, ask, guess, know...

The emerging generalisation is that partial control infinitives are tensed, i.e. intrinsically specified for their own tense,⁵⁹ whereas exhaustive control predicates are untensed. The difference is highlighted by the fact that partial control infinitives allow for a temporal modification independent of that of the matrix clause (49), whereas exhaustive control infinitives do not (50).

- | | |
|---|-----------------|
| (49) a. Today, John regretted having kissed his aunt last week. | (factive) |
| b. Today, John claimed to have lost his car keys last week. | (propositional) |
| c. Yesterday, John hoped to solve the problem tomorrow. | (desiderative) |
| d. Yesterday, John wondered how to solve the problem tomorrow. | (interrogative) |

- | | |
|---|---------------|
| (50) a. * John remembered to lock his door tomorrow. | (implicative) |
| b. * Yesterday, John began to solve the problem tomorrow. | (aspectual) |
| c. * Yesterday, John had to solve the problem tomorrow. | (modal) |

⁵⁸ Landau (1999, 29) points out that the phenomenon of partial control is unaccountable for in the predication approaches to obligatory control, where PRO is equivalent to a lambda-abstracted variable, and also in movement approaches like Hornstein (1999) and Manzini & Roussou (2000).

⁵⁹ Factive and propositional complements involve a realis tense, whereas desiderative and interrogative complements involve an unrealized tense. Landau analyses both types as tensed infinitives, contrary to Stowell (1982), Boskovic (1997) and Martin (2000), who analyse realis complements as not inherently tensed (see note 4).

Therefore, Landau takes the Tense head to play a crucial role in licensing partial control. Summarising very briefly, Landau argues that partial control PRO in a sentence like (47) is semantically but not syntactically plural, like a collective name.⁶⁰ This is formalised by assuming that both the controller DP and PRO are inherently specified for the feature [semantic plurality]: the DP is [-SP], PRO is [+SP].

In tensed infinitives, the Tense head moves to C (Pesetsky & Torrego 2000), so that the Agr features on T are accessible to higher functional heads. The matrix functional head F that agrees with the controller DP establishes an AGREE relation with infinitival Agr in C, rather than directly with the PRO category. The feature [-SP] need not be transmitted from F to the infinitival Agr head;⁶¹ this allows for a mismatch between PRO and the controller w.r.t. their intrinsic specification for [semantic plurality].

(51) [FP F [VP DP [V [CP T+Agr+C [TP PRO [t_T VP□]]]]]]

As for the impossibility of partial control in (48), the crucial difference is that in untensed infinitives T does not move to C, and hence the Agr features on infinitival T are not accessible from outside CP. PRO is instead accessible, because it is interpretable; thus, the matrix functional head F agreeing with the controller DP establishes an AGREE relation directly with PRO. The [-SP] feature of the controller DP is inherited by F and does not match the [+SP] feature of PRO under AGREE. Thus, the derivation cannot converge.

(52)* [FP F [VP DP [V [CP C [TP PRO [T VP□]]]]]]

Interestingly, the partial control behaviour exemplified in (47) is also shared by syntactically plural logophoric pronouns.⁶² As discussed by Huang (2000, 179-80) and Sells (1987,449), these can take a singular antecedent, provided that the referent of the antecedent is properly included in the set denoted by the plural logophoric pronoun:

(53) Donno **S0** (from Huang 2000, 179)

Anta	inyemembe	yogo	bojen	gi.
Anta	LOG-PL	tomorrow	go-1PL	said

'Anta₁ said that they₁₊ are going tomorrow'

⁶⁰ Landau claims that partial control PRO can be the subject of a collective predicate and license the collective adverbial *together*, but it cannot license syntactically plural secondary predicates or floating quantifiers. For myself and for my informants, in Italian syntactic plurality is acceptable if partially controlled PRO refers to a group that includes the external speaker and addressee (iii).

(i) ? Maria₁ ha deciso [di PRO₁₊ riunirsi₁₊ giovedi].

M. decided to-gather-3P REFL. (on) Thursday.

(ii) ?? Maria₁ ha deciso [di PRO₁₊ ritrovarsi *tutti* giovedi].

M. decided to-meet-3P REFL. all-PL (on) Thursday.

(iii) Maria₁ ha deciso [di PRO₁₊ ritrovarci *tutti* giovedi].

M. decided to-meet-1P REFL. all-PL (on) Thursday.

At present I have no insight to offer on this problem.

⁶¹ This is because, by assumption, [-semantic plurality] is non-distinct from underspecification for semantic plurality on functional heads. On the contrary, [+semantic plurality] is always visible for the AGREE relation. This asymmetry is meant to account for the fact that the inclusion relation cannot be reversed: i.e. , PRO cannot refer to an individual which is properly included in the group denoted by the controller.

⁶² Plural logophoric pronouns are cross-linguistically more restricted than singular ones (Huang 2000, 178-180).

Whatever the correct account may be,⁶³ this parallelism supports the proposed equivalence between control and logophoric pronouns.

At this point, the problematic case for the logophoric analysis is exhaustive control.⁶⁴ Wurmbrand (1998) argues that untensed infinitival complements as in (48) do not involve control at all: they are restructuring clauses, in which the infinitival complement merely consists of a bare VP. In fact, the verbs in the (a)-(c) classes cross-linguistically tend to show a restructuring behaviour.

Although this analysis would radically solve the problem of exhaustive control, it faces some difficulties, as discussed by Landau (1999, 77-79).

First, in Romance many implicative verbs of class (a) take infinitival complements that are introduced by prepositional complementizers. These are commonly assumed to occupy a C position. More specifically, in Rizzi's (1997) split Comp hypothesis, they would spell out the Fin^0 head.⁶⁵

Second, even independently of Wurmbrand's specific analysis of restructuring, some implicative verbs that take exhaustive control infinitives never show a restructuring behaviour. These are "weak implicative" verbs, e.g. *compel* and *induce*, whose negation does not entail the negation of the infinitival complement. Therefore, it is impossible to reduce *all* instances of exhaustive control to restructuring.

From the present perspective, the contrast between the two types of infinitival complements is particularly revealing. The different temporal status of the infinitival clauses correlates with another property, namely, the logophoric status of the matrix predicate. Implicative, modal and aspectual predicates denote an event or state that does not establish an internal logophoric centre;⁶⁶ as a matter of fact, these predicate types do not select for logophoric clauses in "strongly logophoric" languages.⁶⁷ On the contrary, the predicates in the (d)-(g) classes denote speech events or mental eventualities which represent an internal logophoric centre for the infinitival complements.

We may even go one step further and reduce the different temporal value of the two types of infinitival complements to the presence vs. absence of an internal logophoric centre in Fin^0 . Recall that the external logophoric centre corresponds to the Speech point on the temporal axis (section 2.2). We may

⁶³ At present it is unclear whether Landau's analysis could be extended to logophoric pronouns as in (53).

⁶⁴ We may stipulate that exhaustive control involves the equivalent of a singular logophoric pronoun (i.e., the abstract infinitival Agr has the singular value for the number feature), but this would merely be a restatement of the problem.

⁶⁵ This is because they follow left-dislocated phrases, which occur in the Spec of the Topic Phrases (compare the skeleton structure in (18) above):

(i) ? *Devi ricordarti, questo libro, di restituirlo entro domani.*

(you) must remember, this book, to give-it-back by tomorrow

However, it must be noted that in these infinitival complements internal topicalization is generally marginal, so that the status of the prepositional particles remains somewhat dubious.

The alternative is to analyse them as real prepositions: but then, Wurmbrand's analysis requires the stipulation that these prepositions select a VP complement, rather than a nominal or clausal complement (Wurmbrand 1998, 152-157).

⁶⁶ Although many implicatives take animate intentional subjects (*dare, make sure, remember, refrain...*), the events they denote do not introduce a cognitive state of the subject in which the proposition expressed by the complement clause might be embedded.

⁶⁷ See Culy (1994, 1997) and Speas (2001) for a cross-linguistic typology of logophoric predicates.

speculate that an internal logophoric centre projects on the temporal axis as a "perspective point"⁶⁸ with respect to which the Event can be temporally placed.⁶⁹ Then, the absence of an internal logophoric centre would entail the impossibility of an independent time location in untensed infinitives. In these, the Event position is presumably identified with the Event position of the superordinate clause.

Be this as it may, it is clear that exhaustive control is not mediated by an internal logophoric centre in the infinitival clause, and it cannot be reduced to the present logophoric approach. It must be a completely different phenomenon, whose proper analysis awaits further research.

Let us reconsider in this light the problem of inanimate controllers, pointed out above in connection with (35). Interestingly, the contrast in temporal value pointed out by Landau holds for the two interpretations of the verb *serve*: the inanimate "controller" of (35a) co-occurs with an untensed infinitival clause (54a), whereas the logophoric Dative controller of (35c) co-occurs with a tensed infinitive (54b).

- (54) a. Questa scatola_i serve a e_i contenere oggetti fragili (?* durante il trasloco di domani).
this box serves to contain fragile objects (during tomorrow's removal)
b. Questa scatola mi_i serve per e_i metterci oggetti fragili durante il trasloco di domani.
this box to-me serves to put-in-it fragile items during tomorrow's removal

Here too, tensedness (in Landau's sense) seems to correlate with logophoricity. In the best of the possible worlds, we may expect that *all* instances of complement control by inanimate antecedents involve exhaustive control into untensed infinitival complements. This possibility remains to be explored in future research.

4.6. Logophoric extension

A problem for the standard c-command requirement on obligatory control is raised by examples like (55a):⁷⁰

- (55) a. It would help [Bill₁'s development] [PRO₁ to behave himself₁ in public].
b. * It would help [Bill₁'s friends] [PRO₁ to behave himself₁ in public].

In (55a), the controller is embedded in the possessor position of a larger DP c-commanding the infinitival clause.⁷¹ In (55b), the same syntactic configuration does not allow for control. The obvious conclusion is that the difference relies in the semantics of the possessed DPs.

Landau (1999, 110) observes that the nouns that project a DP transparent for control belong in a small and coherent class: they "denote abstract notions that reflect the individuality of the controller, via actions, character traits or social attributes". Landau dubs such a DP a *logophoric extension* of the controller.

⁶⁸ On the notion of perspective point, partially overlapping the reichenbachian R point, see Bianchi, Bertinetto & Squartini (1995) and Bianchi & Bertinetto (1996). For a general treatment of infinitival forms along these lines, the proposed notion would have to be generalised; this task exceeds the limits of the present paper.

⁶⁹ This would be consistent with the idea that temporal relations are predicated of events, rather than of time points or intervals; see Bianchi (2000b) and Higginbotham (2001).

⁷⁰ Landau (1999, 111) classifies this example as an instance of obligatory control because the infinitival subject clause is transparent for extraction.

⁷¹ Kayne (1994, 25-27) proposes that a possessor may c-command out of the containing DP, but only if it is quantificational. See Johnson (1998, 33-35) and Bianchi (2001, 4-5) for critical discussion.

Landau suggests that logophoric extensions fail to introduce a new individual referent in the discourse, but somehow "stand for" the individual denoted by the possessor DP. He further suggests that logophoric extensions may be assimilated to inalienably possessed nouns, which also manifest transparency for control purposes:

(56) It would ruin [Steve₁'s figure] [PRO₁ to eat so much ice-cream].

In both cases, the possessed DP "... is referentially dependent on its possessor, hence "inherits" (or does not block) its index". This is consistent with Vergnaud & Zubizarreta's (1992) hypothesis that inalienably possessed DPs contain an expletive Determiner.⁷² Put differently, there is a metonymic relation between the inalienably possessed DP and the possessor, such that the possessor is necessarily involved/affected in any event in which the possessed DP is. Thus, the possessor also counts as a participant in such an event.⁷³

Once again, a very similar behaviour is found with logophoric pronouns and with long distance reflexives, as shown in (57) and (58):

(57) Tuburi (Huang 2000, 183):

<i>bil</i>	<i>be</i>	<i>go</i>	<i>fɛh</i>	<i>wɛr</i>	<i>màngá</i>	<i>se</i>	<i>ko</i>	<i>Jan</i>	<i>mònò</i>
stomach	his ₁		ACCOM	happy	because	LOG ₁	see	John	

'He was happy because he saw John.'

(58) Mandarin Chinese (Huang & Liu 2001, 170-172)

Zhangsan-de	jiaobao	hai-le	ziji.
Z.'s	arrogance	hurt-PERF	self

'Z's arrogance harmed him.'

This further reinforces the proposed parallelism between control and logophoric pronouns.

4.7. *The de se interpretation*

⁷² The problem with this solution is that the referential dependence of the possessed DP seems to be only relevant to control, but not to other coreference relations. For instance, the possessor cannot bind an anaphor c-commanded by the possessed DP; this, however, may be accounted for by assuming Reinhart & Reuland's (1993) view of anaphors as reflexive markers (Barbiers 1995). More significantly, the possessed DP is not referentially transparent for the purposes of Principle C:

(i) ? [Il suo₁ lavoro] costringe Gilberto₁ a passare molte notti in bianco.

his job forces G. to spend many nights awake

In this case too, it is possible to invoke Reinhart & Reuland's (1993) reanalysis of Principle C in terms of the Chain Condition, which is sensitive to strict syntactic c-command; alternatively, it may be assumed that the percolation of the possessor's index is only optional. But the point is that there is no clear independent evidence that the referential dependence of these DPs is syntactically relevant (apart from Vergnaud & Zubizarreta 1992, whose analysis is concerned with another implicit argument: the implicit possessor in *Jean a levé la main* 'John_i raised (his_i) hand').

⁷³ Note that an example like (56) does not involve a cognitive state of the possessor as an internal logophoric centre; nevertheless, it is intuitively clear that the speaker "emphasizes" with him (in the sense of Kuno 1987, chapter 5). It is unclear at present how to integrate his type of logophoric effect in a theory of logophoric centres. Huang & Liu (2000, 171) explicitly deny any logophoric status for the possessor in example (58).

As discussed in section 3, Chierchia (1989) reduces logophoricity to a *de se* attitude, i.e. a self-ascribing relation between an individual and a property. According to Hornstein (1999) and Landau (1999), obligatory and non-obligatory control differ with respect to this interpretation: obligatory control only allows for the *de se* interpretation in intensional contexts, whereas in non-obligatory control, the *de re* interpretation is possible as well. The contrast is exemplified in (59) and (60):

(59) Context: a war hero who suffers from amnesia watches a TV program describing his deeds, without realising that the program is about himself.

- a. The unfortunate expects that he will get a medal.
- b. The unfortunate believes that [getting a medal] would be boring.
- c. The unfortunate expects [to get a medal].

- (60) a. Il poveretto si aspetta che *e* riceverà una medaglia al merito.
b. Il poveretto pensa che [ricevere una medaglia] sarebbe scoccante.
c. Il poveretto si aspetta [di ricevere una medaglia].

(59c) and (60c), with obligatory control into an infinitival complement clause, necessarily express a *de se* attitude: therefore, they are false in the described context (since the unfortunate has a belief about the hero of the TV program without knowing that it is in fact himself).

From the present perspective, the *de se* interpretation constitutes a further parallelism between obligatory control and a type of logophoric element, namely, logophoric long distance reflexives like Italian *proprio* (Chierchia 1989) and Mandarin *ziji* (Huang & Liu 2001; Pan 2001).

On the other hand, since by hypothesis non-obligatory control is logophoric as well, it is somewhat surprising that it allows a *de re* interpretation. My guess concerning (59b) and (60b) is that these examples too involve a *de se* attitude, deriving from an implicit internal logophoric centre: this corresponds to a cognitive state of the implicit Experiencer argument of the adjective *boring* (that is, the war hero who the unfortunate fails to recognise as himself). In fact, it seems to me that in such a configuration, if the immediately superordinate predicate does not introduce an alternative internal logophoric centre, the infinitival clause is anchored to the LC expressed by the matrix clause predicate, resulting in a *de se* interpretation: compare (61a) to (59b)-(60b). In (61b), the *de se* interpretation can be suspended by means of an implicit arbitrary Experiencer of the adjective *dangerous* which controls the infinitival clause in the place of the matrix subject.

- (61) a. Il poveretto pensa che [aver ricevuto la medaglia] sia un puro caso.
the unfortunate believes that having got the medal be by mere chance
b. Pavarotti pensa che [avere i pantaloni in fiamme] sia pericoloso.
P. believes that having the pants on fire be dangerous.

However, this hypothesis awaits for further verification.

4.8. *An open problem: adjunct control*

An open problem for the present approach is adjunct control.

In his extensive investigation of this topic, Williams (1992) reaches the conclusion that high (VP-external) adjuncts are instances of logophoric control, whereas low (VP-internal?) adjuncts are predicated of the "controller". The position of right-hand adjuncts is independently established on the

basis of its relative degree of transparency for extraction: low adjuncts marginally allow for extraction, whereas high adjuncts are absolute islands.

In Landau's theory, adjunct control cannot be an instance of obligatory control, because adjuncts are islands and block any AGREE relation between PRO or infinitival Agr and the superordinate structure. High (clause-initial) adjuncts are assumed to involve logophoric control, as in Williams's theory (Landau 1999, 177-179).

In the present approach, both obligatory and non-obligatory control are inherently logophoric, and the difference resides in the anaphoric vs. semantic/pragmatic licensing of the relevant internal logophoric centre.

Unfortunately, adjunct control is much less logophoric than any of these approaches predicts it to be. There are of course some well-behaved instances of logophoric adjunct control, as in (28)-(30) above; another well-known case is that of purpose clauses:

(62) The boat was sunk [to collect the insurance].

Purpose clauses are inherently logophoric,⁷⁴ in that they can be associated with a cognitive state of the matrix clause Agent; the latter can thus control, even if it is syntactically implicit.

However, non-finite adjuncts also allow for inanimate controllers with absolute freedom, both in clause-initial and in clause-final position:

(63) a. La casa è crollata [poco dopo essere stata costruita].
the house collapsed shortly after having been built
b. Il fulmine si scaricò a terra [senza provocare alcun danno].
the lightning hit the ground without provoking any damage

(63) c. [Prima di essere discusso in aula], il progetto di legge venne modificato.
before being discussed at the Parliament, the bill was modified
d. [Per poter essere approvato], il progetto deve soddisfare certi requisiti.
in order to be-able to be approved, the project must fulfill certain requirements

Clearly, the inanimate controller has no logophoric status and the matrix clause Event does not introduce an internal logophoric centre to which the non-finite adjuncts could possibly be anchored. Thus, the non-logophoric high adjuncts in (63c,d) raise a problem for Williams's and Landau's approaches. Both high and low adjuncts in (63) are problematic for the approach proposed here.

One possible way out would be to assume that non-logophoric adjuncts are predicated of the apparent controller, as proposed by Williams. The problem with this view is that the relevant adjuncts are introduced by prepositions which denote relations between *events*,⁷⁵ but not every inanimate controller necessarily denotes an event. Williams (1992, 318-321) solves the problem by stipulating that control is predication via thematic roles, whereas adjuncts are predicated via bivalent operators, and these relations do not interfere with each other. The predication approach may also account for the observation that non-logophoric adjuncts are strictly subject-oriented (cf. Kayne 1994, 70; Culicover & Jackendoff 2001, 502-503).

I have no alternative solution to offer at present; I have to leave open the problem of adjunct control.

⁷⁴ See Culy (1994) for evidence from "strongly logophoric" languages, and also Quer (2001, 89-91), Williams (1992, 316-318).

⁷⁵ Cf. Bianchi (2000).

4.9. *Summary*

At this point, the proposed approach to control can be summarised as follows:

- (i) [-Finite] Fin⁰ encodes an internal logophoric centre.
- (ii) In non-obligatory control, the internal logophoric centre is contextually licensed on a semantic/pragmatic basis.
- (iii) In obligatory control, the internal logophoric centre is anaphoric to the matrix clause Event. Therefore, the matrix clause Event must be a speech or mental event.
- (iv) An internal logophoric centre can only license a [-R] person feature. This takes as its only possible values the internal participants of the internal LC. Thus, all "controllers" are participants in an internal logophoric centre.

This approach has some limitations and potential counterexamples:

- (i) Controller choice in obligatory control is not (completely) reducible to logophoric criteria.
- (ii) Exhaustive control (in the sense defined by Landau 1999) is non-logophoric.
- (iii) Adjunct control can be non-logophoric.

5. *Interlude II: logophoric centres and individually anchored models*

Up to now, the present theory of logophoric centres has been shown to account for the properties of person agreement in finite clauses and in (most) control clauses. Recapitulating the previous discussion, I am assuming that every clause encodes a logophoric centre. The LC is primarily a speech event, constituting a centre of deixis to which person agreement and temporal structure are anchored. Every speech event is associated with a cognitive state in which the information provided in the speech event itself is to be embedded. In the null case, this cognitive state is the Common Ground shared by the participants. However, it is also possible to establish other subordinate cognitive states, corresponding to "subjective perspectives", in which the propositional content is to be embedded; the result is then embedded in the Common Ground, as in the interpretation of (26) as opposed to (25) (repeated here):

(25) Wagner's music is intolerable.

(26) To me, Wagner's music is intolerable.

I have argued that besides speech events, other mental events/states are associated with a cognitive state and can thus constitute internal logophoric centres.

This informal notion of a cognitive state reflecting an individual's perspective on the world seems close to the formal notion of individually anchored model as defined in Quer (1998; 2001), building on Farkas (1992) and Giannakidou (1998).

Summarizing very briefly, a model is a set of possible worlds associated with an individual x , called the *individual anchor* of that model. Models are defined with respect to a context, which specifies (among other things) a common ground of propositions assumed to be true by all the participants in the speech event; the common ground determines a context set of worlds that are compatible with the information contained in it. Note that the context set is structurally analogous to a model - it is a set of possible worlds - although it is defined in a different way (cf. Quer 2001, 100).

Models are interpretative constructs that serve to relativize the evaluation of a proposition embedded under an attitude predicate. For instance, in (64):

(64) John thinks [that Mary is at home],

the complement clause is true in the epistemic model whose individual anchor is John (M_E (John)), but not necessarily in M_E (speaker). The whole sentence is instead evaluated with respect to (M_E (speaker)), which constitutes the default model (Quer 1998, 25).

Although the similarity between these two notions is intuitively clear, one aspect of my informal conception of cognitive state may be crucially different. Cognitive states can be embedded in the Common Ground and can be embedded in one another: this relative embedding corresponds to the syntactic embedding between the corresponding logophoric centres. The latter is empirically relevant: as discussed by Sells (1987), certain logophoric-sensitive expressions may be licensed by all the higher LCs. It is unclear to me whether individually anchored models share this property. In Quer (2001, 88), the relative syntactic embedding is represented by means of model indices on Discourse Representation Structures. For instance, in the DRS of (64) the interpretation of the complement clause relative to John's epistemic model is represented by the model index M_E (John) on the DRS of the complement clause, which is embedded in the DRS of the whole sentence. However, the models themselves are defined as independent of one another (if I understand the proposal correctly).⁷⁶

My feeling is that individually anchored models correspond to *potential* internal logophoric centres; however, not every intensional contexts involving models alternative to M_E (speaker) necessarily gives rise to the syntactic projection of an internal logophoric centre. To see this, compare finite vs. control declarative complements in Italian, as in (12a) and (14a), repeated here:

(12) a. Gianni_i dice [che *pro*_i è malato].

Gianni says that (he) is ill

(14) a. Gianni_i dice [di *e*_i essere malato].

Gianni says to be ill

Under my analysis, the control infinitival clause in (14a) encodes an internal logophoric centre in Fin^0 , which selects [-R] person agreement and functions as an anchor for the temporal structure. On the contrary, the indicative complement clause in (12a) encodes in Fin^0 the external logophoric centre (S), which selects [+R] person agreement and gives rise to a full-fledged temporal structure. Hence, a declarative complement is a logophoric clause when it is infinitival, but not when it is finite. This

⁷⁶ Another difference is that in my informal approach, propositions are "added" to the cognitive state corresponding to a specific logophoric perspective, rather than being evaluated with respect to it; thus, the subordinate cognitive states are similar to the Common Ground, in that they can be modified and enriched. This is how I express the difference between (25) and (26). As far as I can see, in Quer's approach both sentences would be evaluated w.r.t. the default model, M_E (speaker), and it is unclear how the difference would be expressed. In this respect, the two approaches seem to diverge.

asymmetry is supported by the observation that (14a) only allows for a *de se* interpretation, whereas (12a) also has a *de re* interpretation.

Quer (1998, 2001) has proposed an analysis of subjunctive mood within the formal framework of individually anchored models. In the following section I will discuss person agreement in subjunctive clauses, taking the subjunctive to be an essentially logophoric mood, but I will not try to compare my proposal to Quer's, apart from noting the affinity between individually anchored models and internal LCs.

6. (Italian) subjunctive clauses

In the preceding sections I have argued that the abstract syntactic property of finiteness encodes the logophoric anchoring of a clause. Finite clauses are anchored to the external logophoric centre, i.e. the external Speech event (S), whereas non-finite clauses are anchored to an internal logophoric centre.

An interesting empirical challenge for this proposal is constituted by subjunctive clauses. These are commonly assumed to have an intermediate status between well-behaved finite clauses, i.e. those in the indicative mood, and infinitival clauses. This intermediate status has been analysed in terms of an intrinsic temporal defectiveness of subjunctive clauses.

In this section I will propose a different approach, based on the idea that the subjunctive is an intrinsically logophoric mood (Sells 1987; Sigurdsson 1990). I will show that by extending my analysis of logophorically anchored person agreement it is possible to account for the well known disjoint reference effect.

Because the empirical basis for the analysis is quite delicate, I will exclusively use data from my native language, Italian; I will not try to deal with the problem of cross-linguistic variation in the distribution of the subjunctive.

6.1. *Anaphoric tense?*

Starting from Picallo's (1984) influential proposal, it is commonly assumed that the subjunctive lacks any intrinsic temporal specification, and it is temporally anaphoric to the matrix clause. This accounts for the strict *consecutio temporum* required by the subjunctive. This assumption is at the core of many approaches to the disjoint reference effect (see Avrutin & Babyonyshev 1997, 232-239 for a detailed criticism).

From a reichenbachian perspective, this hypothesis seems to imply that subjunctive tense does not independently encode the S point, but inherits the tense specification from the matrix clause tense. On the contrary, in the present approach subjunctive forms are expected to encode the S point, because they are finite (cf. (16a) above).

The abundant literature on the topic provides some evidence against the hypothesis that subjunctive tense is intrinsically anaphoric.

An immediate objection is that the subjunctive mood can be licensed in independent clauses (e.g. optative or dubitative clauses, and orders). From a semantic viewpoint, these can be assumed to involve implicit illocutive predicates; however, since the anaphoricity hypothesis is strictly syntactic, it requires

the postulation of a syntactically projected covert matrix clauses with a Tense head that may be an antecedent for the anaphoric subjunctive Tense. This type of analysis has been generally rejected in all the current syntactic frameworks.

Secondly, *consecutio temporum* is not obligatory in the complements to epistemic or emotive factive verbs, as shown by the grammaticality of (65a). Here the R point of the embedded compound past form is explicitly located at a time preceding the matrix present Event point. In (65b), *consecutio* results from the fact that the R point of the embedded compound form overlaps the present Event point of the matrix clause.⁷⁷

- (65) a. Gianni crede/si rammarica [che ieri alle cinque Maria fosse già partita].
G. believes/regrets-PRES that yesterday at five Mary had-PAST SUBJ. already left
b. Gianni crede/si rammarica [che Maria sia già partita].
G. believes/regrets-PRES that Mary has-PRES. SUBJ. already left

Furthermore, Kempchinsky (1986, 72-73) points out that with directive verbs it is possible to embed a present subjunctive under a matrix past verb, giving rise to a "double access reading" whereby the event of the subjunctive clause is still unrealized at S (66a). When *consecutio* is respected, as in (66b), the relation of the embedded event to the S point is undetermined.⁷⁸

- (66) a. a. Ieri Gianni ha ordinato che l'edificio venga abbattuto entro due giorni.
yesterday G. ordered that the building be-PRES. SUBJ. destroyed within two days
b. Ieri Gianni ha ordinato che l'edificio venisse abbattuto entro due giorni.
yesterday G. ordered that the building were-PAST SUBJ. destroyed within two days

As discussed by Giorgi & Pianesi (1999), a double access reading is also possible in the subjunctive complements to certain epistemic verbs, e.g. *ipotizzare*.⁷⁹

Strict *consecutio temporum* seems to be obligatory only in subjunctive complements to volitional verbs (as in Picallo's (1984) examples).⁸⁰ In (67b), as in (66b), the event expressed by the subjunctive verb form is interpreted as unrealized w.r.t. the matrix event/state, but its relation to S is undetermined.

- (67) a. * Gianni voleva che l'edificio venga distrutto (entro due giorni).
yesterday G. wanted that the building be-PRES. SUBJ. destroyed (within two days)
b. Gianni voleva che l'edificio venisse distrutto (entro due giorni).
yesterday G. wanted that the building be-PAST. SUBJ. destroyed (within two days)

In conclusion, in various contexts it is possible to embed a past subjunctive under a non-past matrix verb, or vice versa, a non-past subjunctive under a past matrix verb. On the basis of this evidence, various authors have concluded that the subjunctive tense is not intrinsically anaphoric.

⁷⁷ Exactly as in the indicative complements of (13) in section 2.2.

⁷⁸ Note also that in (66a) the adverbial *within two days* is anchored S, whereas in (66b) it is anchored to the time of Gianni's order, i.e. yesterday.

⁷⁹ These complements are characterized by the fact that they disallow complementizer deletion. The problem of the double access reading exceeds the limits of the present discussion; for different views, see Abusch (1997), Giorgi & Pianesi (1999), Higginbotham (2001), Zagona (2001).

⁸⁰ Quer (1998, 34) claims that in Catalan the desiderative verb *want* allows for DAR present subjunctive under a matrix past tense; Kempchinsky (1986, 69) makes a similar claim for Spanish. It is unclear at present why Italian does not allow for this option.

6.2. *The subjunctive as a logophoric mood*

A completely different approach to the subjunctive has been proposed by Sells (1987, 473) and Sigurðsson (1990). These authors argue that the subjunctive is an intrinsically *logophoric* mood, representing a perspective distinct from that of the external Speaker. According to Sells, in Italian subjunctive clauses the logophoric roles of SOURCE, SELF and PIVOT are assigned to an internal protagonist, whereas in indicative clauses they are assigned to the external Speaker. According to Sigurðsson, Icelandic subjunctive clauses express the information that the person responsible for truth of the clause is not the external Speaker. Truthfulness responsibility can instead be attributed to a *secondary ego* (another person representing the "subject of consciousness").⁸¹

The empirical domain on which the logophoric approach is based is the well known phenomenon of logophoric binding of long-distance anaphors (*proprio* and *sé* in Italian; *sig* in Icelandic). In both languages, long-distance binding is allowed into subjunctive clauses but not into indicative clauses:

- (68) a. Gianni_i crede [che Maria odi i propri_i genitori].
G. believes that M. invite-SUBJ the self parents
b. Gianni_i sa [che Maria odia i propri*_i genitori].
G. knows that M. hates-IND the self parents

- (69) a. Jon_i segir aD Maria elski sig_i.
J. says that M. loves-SUBJ self
b. *Jon_i veit aD Maria elskar sig_i.
J. knows that M. loves-IND self

6.3. *The complex logophoric structure of the subjunctive*

At this point, we have an apparent paradox. On the one hand, principle (16a) implies that subjunctive clauses encode the external logophoric centre, since they are finite forms and they license a referentially independent subject (i.e., they involve [+R] person agreement). On the other hand, the robust contrasts in (68) and (69) clearly indicate that subjunctive clauses have a different logophoric status w.r.t. indicative ones, and they can be anchored to an internal point of view. In the present approach, this property can be most naturally expressed by assuming that they syntactically encode an internal logophoric centre.

My answer is that this is not a paradox at all, and both of the above suggestions are true: namely, subjunctive clauses can encode both the external logophoric centre and an internal one. Note that in the present approach this is in fact the most direct way to express the insight that the subjunctive partakes of the nature of both finite and infinitival moods. This hypothesis can be articulated as follows:

- (70) i. Subjunctive mood encodes the external LC in [+finite] Fin⁰.
ii. Subjunctive mood can also encode an internal LC in a lower functional head (which I will call Mood⁰ for concreteness).

⁸¹ Subjunctive clauses are also not stated from the external Speaker's temporal point of view (*now*); in this way, Sigurðsson's logophoric approach also entails a different temporal status of subjunctive clauses w.r.t. indicative ones.

iii. [Fin⁰ [Mood⁰ [IP...]]]
 1 1
 EXT. LC INT LC

I am not proposing that this complex logophoric structure is uniformly instantiated in every subjunctive clause. In fact, as noted by Sigurðsson (1990), not every subjunctive clause constitutes a logophoric domain. For one thing, subjunctive adverbial clauses seem not to be necessarily anchored to an internal logophoric centre; some subjunctive adverbial clauses do not allow for long-distance anaphor binding (Sigurðsson 1990, 311).⁸² Furthermore, the above proposal does not account for polarity subjunctive, which is triggered in a complement clause by an interrogative or negative operator in the matrix clause.⁸³

I propose that the internal logophoric centre is projected in complement clauses where the subjunctive is lexically selected by a matrix logophoric verb. The internal logophoric centre is anaphoric to the matrix clause Event, much as in obligatory control clauses (cf. section 4). This accounts for the fact that subjunctive complements express a subjective perspective on the event: the proposition must be embedded in the cognitive state of the matrix clause subject (*a fortiori*, the latter has truthfulness responsibility, as argued by Sigurðsson).⁸⁴ The subjunctive clause constitutes a logophoric domain, licensing long distance anaphor binding.⁸⁵

(71) Lexically selected subjunctive complement clauses syntactically encode an internal LC anaphoric to the matrix clause Event.

Actually, the syntactic projection of the anaphoric internal LC may be even more restricted than that. At least for some Italian speakers, long-distance anaphor binding is difficult to obtain in subjunctive complement clauses that do not respect *consecutio temporum* (72b,73b).⁸⁶

(72) a. Gianni_i credeva [che i propri_i genitori fossero già partiti].

G. believed that the self's parents had-PAST SUBJ. already left

b. ?? Gianni_i crede [che ieri alle cinque i propri_i genitori fossero già partiti].

G. believes that the self's parents had-PAST SUBJ. already left

(73) a. Gianni_i credeva [che tutti i giornali parlassero di sé_i].

G. believed that all the newspapers tell-IPF.SUBJ. about self

b. ?? Gianni_i crede [che il giorno del matrimonio tutti i giornali parlassero di sé_i].

G. believes that on the day of-the wedding all the newspapers told-IPF.SUBJ. about self

⁸² With the exception of purpose clauses, which constitute logophoric domains, as noted above. In Italian it is possible to bind a long-distance anaphor within an adverbial clause which is itself embedded in a complement clause: see Giorgi (1984).

⁸³ See Quer (1998, chapter 2), who argues that polarity subjunctive must be kept distinct from lexically selected subjunctive. Manzini (1994) instead proposes that the subjunctive is always licensed as a polarity item.

⁸⁴ This parallels Quer's proposal that the matrix predicate introduces a specific type of model with respect to which the embedded clause is evaluated (cf. section 5).

⁸⁵ I will not take a position on the status of long-distance anaphors, apart from assuming that they are logophorically oriented. As discussed in Cole et al. (2001), their anaphoric versus pronominal status is still under debate, and it is not clear yet whether they should be completely assimilated to real logophoric pronouns or not (see also Culy 1997).

⁸⁶ Anderson (1982, 10-14) makes a similar claim concerning Icelandic *sig*, but his claim has been criticized by various authors (see Sigurðsson 1990, 314-316 for discussion).

The judgements are admittedly delicate; if the contrast is real, we have to conclude that only subjunctive complement clauses with *consecutio temporum* constitute logophoric domains and encode an internal logophoric centre.⁸⁷

A possible way to implement this hypothesis is the following.

First, let assume that all subjunctive verb forms necessarily encode a perspective point - subsuming the reichenbachian R point in compound forms - from which the event is seen as not completed (in non-compound forms) or already completed (in compound, perfect forms).⁸⁸ This assumption is justified by the observation that subjunctive mood lacks the purely deictic tenses, i.e. the Simple Past (*passato remoto*) and the Simple Future (*futuro semplice*), which never involve a perspective point in their temporal structure.

Second, suppose (pace Picallo 1984 and Sigurdsson 1990) that the temporal structure of a subjunctive complement clause can be anchored either to the external or to an internal logophoric centre.

When the temporal structure is anchored to the external logophoric centre (S), the perspective point is referentially free, as in (65a), and the Event is temporally related to S via the perspective point.

Alternatively, the temporal structure can be anchored to an internal logophoric centre. Specifically, suppose that instead of a purely temporal perspective point, the functional structure encodes an internal logophoric centre anaphoric to the matrix clause Event. This means that the upper part of the temporal structure encodes the temporal relation between the external and internal logophoric centres.⁸⁹ this yields *consecutio temporum*. The event denoted by the subjunctive clause is temporally related to the internal LC only.

My guess is that this anchoring to an internal LC is obligatory in strongly intensional contexts, in particular, in purely volitional contexts like (67). The reason is presumably that the proposition expressed by the volitional complement clause can only be interpreted from the perspective of the mental state expressed by the matrix volitional predicate; it simply does not make sense to evaluate it from the temporal perspective of the external Speaker and Addressee (whereas it makes sense to evaluate from this perspective the potential realization of an order, as in (66a)). However, at this point these remarks are very informal and tentative.

This proposal leads to a more restrictive restatement of (71):

(71') Lexically selected subjunctive complement clauses that respect *consecutio temporum* syntactically encode an internal LC anaphoric to the matrix clause Event.

At this point, it is unclear which version of (71) is correct. In the following discussion, I will evaluate the data with respect to both, but the problem will remain open.

Before concluding this subsection, one more disclaimer is in order. My proposal as it stands cannot account for cross-linguistic variation in the lexical selection of the subjunctive (see Giorgi & Pianesi

⁸⁷ The logophoric nature of *consecutio temporum* is further supported by the behaviour of infinitival complements to deverbal nouns. Note that if the selecting noun denotes a past speech or mental event, the subjunctive complement clause is temporally anchored to it and has a past subjunctive form even if the matrix verb is in the present tense:

(i) [La convinzione di allora [che le armi nucleari avessero un effetto deterrente]] appare oggi del tutto infondata.
the belief at that time that nuclear weapons had-IPF.SUBJ. a deterrent effect appears-PRES nowadays completely groundless

(ii) [Quella sua richiesta [che la moglie rinunciassse al proprio lavoro]] sarebbe oggi inconcepibile.
that demand of his that (his) wife give-up-IPF.SUBJ. her own work would-be nowadays inconceivable

⁸⁸ For full discussion see Bianchi, Bertinetto & Squartini (1995) and Bianchi & Bertinetto (1996).

⁸⁹ This is close to Sigurdsson's (1990, 330) proposal that subjunctive tense "stands for the temporal reference point itself".

1999, chapter 5). Just to make an example, Italian declarative verbs take an indicative rather than a subjunctive complement: from the present perspective, this implies that their finite complements do not encode an internal logophoric centre. On the contrary, in Icelandic declarative complements require the subjunctive.

This suggests that the obligatory *syntactic* projection of the internal logophoric centre is determined in a language-specific way in a subset of the potentially logophoric contexts, perhaps on the basis of a "scale" of intensional contexts like that proposed by Giorgi & Pianesi (1999, 217). The criteria that cross-linguistically determine the syntactic projection of the internal LC in different subsets of the potential logophoric contexts remain to be elucidated in future research.

Let us now go back to our main topic, namely, person agreement.

6.4. *The disjoint reference effect*

According to standard descriptions, the disjoint reference effect blocks coreference between the subject of a subjunctive clause and the matrix clause subject:

(74) Gianni_i vuole [che e*_i torni a casa].
G. wants that (he) go-back-PRES.SUBJ. home.

It has been repeatedly pointed out that disjoint reference effects do not arise uniformly in all subjunctive clauses. As discussed by Farkas (1992, 86), Kempchinsky (1986), Laka (1990, 236) and Avrutin & Babyonyshev (1997, 238-39), they are absolute in complements to volitional verbs, whereas they are less strong and/or subject to dialectal variation with other verbs. Ruwet (1984) shows that other subtle semantic factors are relevant.

I wish to suggest that the disjoint reference effect is a manifestation of logophoric person agreement in subjunctive clauses that encode an internal logophoric centre.

Recall that person agreement is directly licensed by the local logophoric centre of the clause: the external LC selects [+R] person agreement, whereas the internal logophoric centre of infinitival clauses selects [-R] person agreement. However, the complex logophoric structure (70) encodes both the external and an internal logophoric centre. The participants in the anaphoric internal LC correspond to the arguments of the matrix clause, and the corresponding person values are by hypothesis [-R]. I propose that this makes them incompatible with [+R] person agreement licensed by the external LC. Therefore, [+R] person agreement cannot take as a value the referential indices of the participants of the internal LC, i.e. the matrix arguments.

This incompatibility mirrors a well known constraint found in "strongly logophoric" languages: In a logophoric clause, a non-logophoric third person pronoun cannot take as an antecedent a referent that has logophoric status (Huang 2000, 173). A disjoint reference effect arises which is quite similar to (74).

Alternatively, we may recast Farkas's (1992) "blocking" analysis, according to which the disjoint reference effect arises from the rivalry between the infinitive and the subjunctive. Recall that in the present approach, both control infinitives and selected subjunctives are endowed with an anaphoric internal LC; however, the subjunctive has a richer structure, which also encodes the external LC. Whenever the embedded clause subject corresponds to one of the matrix clause arguments, it can be licensed by means of [-R] person agreement, which only requires the projection of the internal LC. In this case the realization of the complex logophoric structure (70) is unnecessary, and this option is

ruled out by a principle of economy of structure ("project the minimal structure that is necessary for convergence").⁹⁰

Let us now consider some consequences of this approach.

6.4.1. The disjoint reference effect seems to be sensitive to *consecutio temporum*: it is strong in complement clauses that respect *consecutio*, like the volitional complement in (74) above or the epistemic complement in (75a), whereas it is suspended in complement clauses without *consecutio*, like (75b):

- (75) a. Gianni_i sospettava [che e*_i fosse stato licenziato].
G. suspected that (he) had-SUBJ been fired
b. (?) Gianni_i sospetta [che ieri alle cinque e_i fosse già stato licenziato] (anche se gli_iel'hanno detto solo oggi)
G. suspects that yesterday at five (he) had-SUBJ already been fired (although they told him about it only this morning)

If we adopt (71), the subjunctive complement clause encodes an internal LC both in (75a) and in (75b), irrespective of *consecutio*, and the asymmetry is unexpected. Under (71'), the solution is straightforward: in (75b) the subjunctive complement lacking *consecutio* does not encode an internal logophoric centre, so that no interference with person agreement is expected.

Under (71), the blocking analysis gives an interesting account. Note that the subjunctive can be substituted for by the infinitive only when it respects *consecutio temporum*, namely, when its temporal structure is anchored to the internal LC: this is because in a controlled infinitival clause the temporal structure is necessarily anchored to the internal LC, and does not allow for a perspective point (Reichenbach's R) independent from the matrix clause Event (Bianchi 2000):

- (76) * Gianni crede [di essere già stato licenziato, ieri alle cinque]. (yesterday at 5 = R)
G. believes to have already been fired yesterday at five

Therefore, the subjunctive in (75b) is temporally non-equivalent to a controlled infinitive: this justifies the projection of its more complex logophoric structure (under (71)).

6.4.2. Limiting our attention to selected subjunctive complements with *consecutio temporum*, the logophoric approach makes another prediction: the disjoint reference effect will only arise with respect to matrix clause arguments that correspond to participants in the internal logophoric centre. As discussed in section 4.4.4 above, certain verbs like *volere*, *pretendere*, *aspettarsi* and *ottenere* can take an indirect complement that does not denote a participant in the matrix clause event. This complement cannot control into an infinitival complement, but it can corefer with the pronominal subject of a subjunctive complement:

- (77) Gianni pretende/vuole/si aspetta da Maria_i [che e_i torni a casa presto].
Gianni requires/wants/expects of M. that (she) come-back- home early

⁹⁰ Various versions of a principle of economy of structure, or economy of projection, have been proposed in the literature: cf. among others Cardinaletti & Starke (1994) ("Minimize structure"), Speas (1994).

The lack of a disjoint reference effect is expected, because the referent of the indirect *of*-complement is not inherited by the anaphoric internal LC as an internal participant.

It may be objected that (77) is irrelevant because the disjoint reference effect is only sensitive to the matrix clause subject. In fact, the disjoint reference effect is weaker when the antecedent is a non-subject (Farkas 1992, 105-106)

- (78) a. ? Gianni_i ha chiesto a Maria_i [che *e_i* torni a casa].
G. has asked M. that (she) come-back-PRES.SUBJ. home
b. ?? Gianni gli_i ordinò [che *e_i* se ne andasse subito].
G. to-him ordered that (he) go-IPF.SUBJ. away immediately
c. ? Gianni mi_i ha consigliato [che *e_i* mi faccia visitare da un medico].
G. to-me has given-advise that (I) get myself examined by a physician
d. ?* Ti prego [che *e_i* mi aiuti].
(I) beg you that (you) help-PRES.SUBJ. me

It seems to me that the disjoint reference effect cannot be dismissed in these cases; however, the fact that it is weaker here constitutes a problem for the logophoric approach, because the matrix indirect complements are inherited by the anaphoric internal LC. It is possible to speculate that the indirect complements constitute optional participants in the matrix clause Event, in that an order or an advice can be transmitted indirectly without the actual presence of the receiver in the relevant speech event; thus, perhaps, they need not be incorporated in the anaphoric LC. In (78d), where the context makes clear that the receiver is a direct participant in the speech event (i.e., an addressee), the disjoint reference effect is quite sharp.

On the other hand, the SOURCE (i.e., the matrix subject) is always an obligatory participant in the matrix clause Event, and is obligatory inherited by the anaphoric LC: hence the disjoint reference effect with respect to a matrix subject is very sharp. Once again, this suggestion is very speculative; this remains an open problem for the present approach.⁹¹

6.4.3. Disjoint reference also arises with respect to quirky Experiencer subjects of psych verbs; the latter clearly correspond to internal participants in the logophoric centre constituted by the matrix predicate:

- (79) A Gianni_i dispiaceva [che *e_{γ*}_i* fosse stato licenziato].
to Gianni displeased that (he) had been-SUBJ. fired

Conversely, if the disjoint reference effect is strictly dependent on person agreement, we predict that a Dative quirky subject in the subordinate clause is immune to it, whereas a Nominative object triggering person agreement is sensitive to the effect (cf. section 2.1):⁹²

- (80) a. *e_i* vorrei [che mi_i piacesse di più la linguistica].
(I) would-like that to-me pleased-PAST.SUBJ. more linguistics
b. *e_i* non voglio [che mi_i capiti una disgrazia].
(I) don't want that to-me happen-PRES.SUBJ. a misfortune
(81) * Lei_i vorrebbe [che *e_i* gli piacesse].

⁹¹ Farkas (1992) solves the problem by stipulating that control by a non-subject does not represent a "canonical control case", hence the blocking principle which makes the infinitive obligatory in canonical control configurations does not apply.

⁹² Cf. Avrutin & Babyonyshev (1997, 235-236) on Russian.

(she) would-like that (she) to-him pleased-PAST.SUBJ.

Note however that when the factive complement clause of (79) is destressed or anteposed the disjoint reference effect tends to disappear. Pérez Vázquez (2001, 215) argues that in this case the factive clause is exclusively anchored to an external, objective point of view. We may assume that in this context the functional structure of the subjunctive clause does not encode an internal LC at all, but only the external LC.

6.4.4. A final remark concerns rationale clauses. According to Manzini (1994, 260-262), the disjoint reference effect does not arise in subjunctive adjunct clauses, except for rationale clauses:

- (82) a. e_i vado [prima che e_i mi arrabbi].
(I) go-away before that (I) get-angry-PRES.SUBJ.
b. * e_i vengo [perché e_i ti aiuti].
(I) come in order that (I) help-PRES.SUBJ.you

Manzini suggests that rationale clauses involve an abstract volitional predicate. This insight can be rephrased in the present approach by assuming that the subjunctive rationale clause has an internal logophoric centre corresponding to a volitional state of the matrix clause subject (cf. the discussion around (62)). Predictably, the disjoint reference effect does not arise if the matrix subject is not a volitional agent; in this case, it cannot qualify as the subject of a volitional state that constitutes the internal logophoric centre of the rationale clause:

- (83) a. Gianni; è stato arrestato [affinché e_i confessi il suo delitto].
Gianni has been arrested in order that (he) confess-PRES.SUBJ. his crime
b. La ricerca continuerà [affinché e_i possa dare risultati definitivi].
the research will-go-on in order that (it) may-PRES.SUBJ. yield definitive results

6.5. Summary

Summarizing, I have proposed that lexically selected subjunctive complements, at least when they respect *consecutio temporum*, have a complex logophoric structure encoding both the external logophoric centre and an internal logophoric centre anaphoric to the matrix clause Event. This captures the fundamental insight that these subjunctive clauses have an intermediate status between indicative clauses and obligatory control clauses.

I have suggested that the disjoint reference effect emerges in subjunctive clauses in which an internal logophoric centre interferes with the licensing of [+R] person agreement by the external logophoric centre. Alternatively, it is possible to recast the blocking approach proposed by Farkas (1992) in terms of a principle of economy of structure, whereby the control infinitive wins over the complex logophoric structure of the logophoric subjunctive whenever [-R] person agreement is sufficient to license the subject of the complement clause.

In conclusion, the complex logophoric structure in (70) seems well motivated for a subset of subjunctive clauses. Of course, this is not to say that it exhausts all the aspects of the syntax/semantics/pragmatics of the subjunctive.

7. Further perspectives

In the preceding discussion, the theory of logophoric centres has been applied to finite indicative clauses, control clauses, and subjunctive clauses. In all the three cases, the idea that person agreement is locally licensed by the logophoric centre of the clause yields non-trivial consequences. But obviously, many problems remain open, both on the empirical and on the conceptual side. In this section I will briefly discuss some of them, outlining directions for future research.

7.1. Nominative subjects in non-finite clauses (Pérez Vázquez 2001)

The licensing principle (1), from which the foregoing discussion originated, has some well-known exceptions. In some languages, non-finite clauses can license Nominative subjects (for very recent discussion see Ledgeway 2000; Mensching 2000; Pérez Vázquez 2001, chapters 6-7):

- (84) a. [El irse Juan de Madrid] carece de sentido.
the go-away-INF Juan from Madrid doesn't make sense (Spanish; Pérez Vázquez 2001, 138)
b. Gianni ritiene [non esser tu in grado di svolgere quel compito]. (Italian Aux to Comp)
G. believes not to-be you-NOM able to do that job

These may constitute counterexamples to the proposed analysis, since I have argued that non-finite clauses fail to encode the external logophoric centre that is necessary to license [+R] person agreement. A possible way out is to assume that in (84) Nominative Case is not a manifestation of person agreement, and hence does not fall under the licensing principle (20). But this solution is not viable for the European Portuguese personal infinitive, where a Nominative subject co-occurs with overt person agreement.⁹³

- (85) Será difícil [eles aprovarem a proposta].
will-be difficult they-NOM to-approve-3PL the proposal

Pérez Vázquez (2001, chapters 6-7) analyses in detail the Spanish and Italian structures and argues that infinitival clauses that license a Nominative subject are exceptionally anchored to the external logophoric centre, corresponding to an "objective point of view".⁹⁴ This accounts for the two basic constraints on these structures:

- a) First, Nominative subjects are disallowed in infinitival clauses with unrealized (prospective) tense, which is necessarily anchored to an internal logophoric centre anaphoric to the matrix clause Event.
- b) Second, Nominative subjects are disallowed in complement infinitival clauses that fall within the syntactic scope of an intensional predicate setting up an internal logophoric centre, whereas they are allowed in non-prospective adjunct clauses and in presupposed argument clauses, i.e. those that encode information already included in the Common Ground.

The following contrasts clearly illustrates these points (Pérez Vázquez 2001, §§ VI.2.1.8; VII.7.4). In both the examples (86), the infinitival complement is selected by the volitional verb *desear* 'wish'. However, in (86a), the infinitival clause is within the syntactic scope of the verb: the infinitive

⁹³ See among others Ambar (1996), Raposo (1987), Uriagereka (1995).

⁹⁴ See also Bianchi (2000) for initial evidence that an analysis along these lines may be fruitfully extended to the European Portuguese personal infinitive.

necessarily has an unrealized interpretation, and a Nominative subject is completely impossible. In (86b), instead, the complement clause has been raised outside the scope of the matrix verb by passivization, and it can be anchored to the external LC. Here the infinitival clause allows for a Nominative subject and its Event is not necessarily interpreted as unrealized (it may, in fact, be temporally placed at a time preceding or overlapping S).

- (86) a. ** Deseamos [acabar la estudiante la tesis].
 wish-1PL complete-INF the student the thesis
 b. ? [El regresar los Saboya a Italia] fue deseado por los italianos durante años.
 the return-INF the Savoia to Italy was wished-for by the Italians for years

The examples in (87) instead involve infinitival complements to declarative verbs. In contemporary Spanish, Nominative subjects are basically excluded in this context⁹⁵ (unless the declarative complement clause is presupposed), as shown in (87a). However, a Nominative subject is perfectly acceptable in the declarative complement of (87b). The reason for this contrast is that in (87b), contrary to (87a), the matrix verb has an inanimate subject and does not introduce a non-objective point of view (in our terms, a cognitive state representing an internal logophoric centre); thus, the complement clause is anchored to the external logophoric centre.

- (87) a. * Juan afirma [haber ido Marta a Italia].
 J. declare-PRES.3S have-INF gone Marta Italy
 b. Este documento prueba haber nacido Juan en Pamplona].
 this document prove-PRES.3S have-INF been-born J. In Pamplona

Thus, Spanish and Italian infinitival clauses with Nominative subjects are anchored to the external logophoric centre, fulfilling the licensing principle (20). For full discussion, the reader is referred to Pérez Vázquez (2001) and Bianchi & Pérez Vázquez (in preparation).

7.2. Languages with relative tense: splitting the logophoric centre?

The logophoric centre as described above serves as a local anchor both for temporal structure and for person agreement. But as is well known, some languages have embedded finite relative tense, anchored to an internal LC, cooccurring with deictic person agreement, anchored to the external LC.

According to Lefebvre & Muysken's (1988, chapter 2,7) description, Quechua has relative tense (their [-Main Tense]) anchored to the matrix Event in finite verb forms embedded in certain adverbial clauses and in nominalized clauses. This relative tense is morphologically distinct from absolute tense anchored to S (their [+Main Tense]). Interestingly, relative tense affects person agreement:

- (a) The relative tense morphemes found in nominalized clauses cooccur with a deictic person agreement paradigm (*ni*-paradigm) which is distinct in the first and second person from the *y*-paradigm cooccurring with absolute tense:

- (88) a. Hamu -rqa -ni.
 come PAST 1
 'I come'

⁹⁵ Nominative subjects were allowed in this context in earlier stages of the language and are still possible at a very marked stylistic level.

b. Hamu -sqa -y -ta yacha -n (L&M 1988, 16)
 come NOM.ANT 1 ACC know 3
 'he knows that I have come'

- (b) The relative tense morphemes found in (certain) adverbial clauses syncretically encode same vs. different subject (switch reference); person agreement in the adverbial clause may be redundantly marked by means of the *y*-paradigm.

In languages like Russian or Hebrew, the very same verb forms receive an absolute interpretation in main clauses and in relative clauses, and a relative interpretation anchored to the matrix event in other subordinate clauses:

- (89) a. Maria spit'.
 Maria sleep-PRES
 'Maria is sleeping'
 b. Ivan skazal [chto Maria spit'].
 Ivan said that Maria sleep-PRES
 'Ivan said that Maria was sleeping'

Interestingly, Barentsen (1996) and Chung & Timberlake (1985, 211-12) argue that Russian relative tense is intrinsically logophoric: in certain contexts, e.g. in complements to perception verbs, it can alternate with absolute tense in order to convey internal vs. external perspective.

- (90) Ja zametil, kak u nego trjasutsja / trjaslis' ruki.
 I observed how by him tremble-pres/-past hands
 'I observed how his hands were trembling' (Chung & Timberlake 1985, 212)

This leads us to hypothesize that relative tense is anchored to an anaphoric LC, although it is finite.

Thus, in these languages we observe a split between the addresser/addressee components (ADDR) vs. the time coordinate (COORD) of the logophoric centre: only the latter is anaphoric to the matrix clause Event. In a syntactic vein, we may modify our initial hypothesis and assume that these two aspects of the logophoric centre are projected in two separate functional heads:

- (91) i. ADDR licenses person agreement,
 ii. COORD is the local anchor for tense.
 iii. ADDR is hierarchically higher than COORD.

We can then assume the universal principles (92)-(93), which characterize main clause finite forms, and the parameter (94):

(92) Deictic ADDR licenses [+R] person agreement.

(93) Deictic ADDR selects deictic COORD.

(94) Parameter: ± (Deictic ADDR may select anaphoric COORD)

(94) has a positive setting in languages like Hebrew, Russian, or Quechua: when deictic ADDR selects deictic COORD, we have absolute finite forms; when it selects anaphoric COORD, we have relative finite forms. In Quechua, these two options receive morphologically distinguished realizations.⁹⁶

7.3. *The person asymmetry: splitting person agreement?*⁹⁷

In section 2, an asymmetry emerged between first and second vs. third person agreement.⁹⁸ In Icelandic, first and second person subject pronouns are excluded from the Nominative object position, which cannot control person agreement; in French, first and second person strong pronouns are excluded from the subject position of gerund clauses, which presumably lack person agreement. The asymmetry may be accounted for by assuming that third person is actually lack of any person specification. The obligatoriness of person agreement with the verb suggests that first and second person subject pronouns⁹⁹ must be licensed by a local relation with a person feature directly licensed by the external logophoric centre.

A related asymmetry has been observed in pronominal systems. Kayne (2000b) argues that in Romance, those pronouns that are usually classified as third person actually do not encode person at all. The real "third person" pronoun is French *soi*, Italian *sé*. A similar claim has been advanced by Taraldsen (1995, 311) concerning Icelandic *sig*.

Reuland (2001, 359-363) suggests that Icelandic *sig* is a pure personal pronoun, where the basic function of a personal pronoun is that of expressing orientation between a source and a target: First and second person pronouns express utterance orientation, whereas the pure third person pronoun *sig* expresses "event orientation" (i.e., an internal orientation). The logophoric interpretation of *sig* corresponds to this intrinsic function.

These observations suggest that third person must be a real person after all, namely, the participant in a logophoric centre: a "center of consciousness or communication", to adopt a common and concise definition. If we assume that Icelandic *sig* intrinsically has a person value, we can account for the fact that like first and second person pronouns, it is excluded from the Nominative object position lacking person agreement, as opposed to other "third person" - i.e. actually, non-person - DPs (cf. section 2.1).

Once again, we can mechanically apply the splitting technique and postulate two distinct functional heads encoding first and second person agreement vs. third person agreement.

We may even go one step further and assume a distributed projection of every person value (cf. Poletto 2000, 31). Taking real "third person" to be syntactically distinct from non-person, we may venture to propose the following agreement categories (leaving open the question of the relative hierarchical position):

⁹⁶ We may add the conjecture that anaphoric ADDR cannot select deictic COORD: this would entail that all clauses with relativized person agreement, as in (22) above, have relative tense as well. This is the case in all of the examples in (22); but since I am unable to carry out an extensive cross-linguistic verification, I have to leave the question open.

⁹⁷ Thanks to Francisco Ordoñez for bringing this problem to my attention.

⁹⁸ The very same asymmetry has been observed in a very different context, namely, the "Blocking Effect" on long distance anaphor binding. As discussed among others by Cole, Hermon & Lee (2001), in two Chinese dialects, Mandarin and Teochew, the relation between the long-distance anaphor *ziji* and its logophoric antecedent is blocked by a first or second person pronoun intervening anywhere in the clause, but not by a third person pronoun. Cole et al. (2001, 16) suggest that first and second person pronouns occurring anywhere in a clause imply that the external speaker is the PIVOT, because they are "inherently relational vis-à-vis the speaker".

⁹⁹ When they are referentially independent: cf. the discussion around (27) above.

(95) Speaker
Addressee
third person (animate, logophoric)
non-person (= morphologically third person by default).

Note that this split system resembles to a remarkable extent the well known animacy hierarchy, which constitutes the basis of very different person agreement systems (cf. Aissen 1999, Nycols 2000). I leave this similarity as a hint for possible future research.

8. Concluding remarks

At this point, we can look back and review the main aspects of the present proposal.

The basic insight is that two central aspects of clausal syntax - temporal structure and person agreement - can be related in a non-trivial way within a general theory of logophoricity.

I have proposed a view of logophoricity based on the novel notion of *logophoric centre*. The LC is a speech or mental event that is intrinsically endowed with at least one participant and with temporal coordinates. There are two main types of logophoric centre. The external LC corresponds to the external speech event (subsuming the reichenbachian S point). All other speech or mental events may constitute internal logophoric centres. These can be licensed contextually on a semantic/pragmatic basis, or alternatively, they can enter an anaphoric relation with a syntactically expressed speech or mental event.

On the basis of the notion of logophoric centre, we have arrived at a new conception of *finiteness*. This syntactic feature encodes the logophoric orientation of the clause. More specifically:

- a) finite indicative clauses are anchored to the external logophoric centre, that is, the external speech event;
- b) control clauses are anchored to an internal logophoric centre, which is sometimes anaphoric to the matrix clause Event;
- c) at least some subjunctive complement clauses have a complex logophoric structure including both the external LC and an internal anaphoric LC.

For concreteness, I have assumed that each clause syntactically encodes a LC in the Fin^0 head of Rizzi's (1997) complementizer system.

I have argued that *person agreement* is universally licensed by the local logophoric centre of the clause. This licensing relation is reflected in the syntax as a selectional relation between the Fin^0 head that encodes the LC and the inflectional head that encodes person agreement.

This licensing relation yields various non-trivial consequences.

First of all, it solves our initial problem, namely the question of why Nominative Case on referentially independent DPs is essentially restricted to [+finite] clauses. The initial formulation has been sharpened: Nominative Case is restricted in this way only when it is a manifestation of person agreement. This follows from the hypothesis that [+R] person agreement is universally licensed by the external logophoric centre, encoded in [+finite] clauses.

Second, this proposal makes possible a reinterpretation of the phenomenon of control in terms of defective [-R] person agreement, licensed by an internal LC in non-finite clauses.¹⁰⁰ In obligatorily controlled clauses the internal logophoric centre is anaphoric: this gives a unified account for the anaphoricity of both tense and person agreement in these clauses - a correlation that has often been pointed out but not really accounted for.

Third, it is possible to capitalize on the idea that certain instances of the subjunctive mood are intrinsically logophoric, so as to account for the disjoint reference effect and for its specific distribution. The DRE arises in subjunctive clauses endowed with a complex logophoric structure in which the internal participants of the internal LC are incompatible with [+R] person agreement licensed by the external LC. (Alternatively, it is possible to recast Farkas's (1992) blocking approach in terms of economy of projection).

Before concluding, let me propose some further speculations of a more theoretical character.

The first one concerns the issue of interpretability of formal features. In the minimalist framework, phi-features - and in particular the person feature - are interpretable on DPs and uninterpretable on the agreeing functional head (T, by assumption). The present approach conceives of verbal person agreement as being necessarily anchored to the local logophoric centre of the clause. From this perspective, person agreement is essentially a way of classifying the individual referents present in the Universe of Discourse into at least three categories: first person (properly or improperly including the speaker), second person (properly or improperly including the addressee), and third person (all the rest, perhaps with further subdivisions). This classification is directly relativized to every specific speech event.

The relevance of this classification emerges clearly in languages like Catalan and Spanish, where a (plural definite description in subject position can co-occur with first or second person agreement (Carne Picallo, personal communication):

- (96) a. Los profesores estamos mal pagados.. (Spanish)
the professors are-1.PL. poorly paid
(96) b. Els professors esteu mal pagats. (Catalan)
the professors are-2.PL. poorly paid

The resulting interpretation is that the set denoted by the definite description properly or improperly includes the Speaker (96a) or the Addressee (96b). The source of this interpretation is verbal person agreement, whereas the definite determiner is plausibly underspecified for person. This type of agreement cannot be analysed in terms of feature value copying from the goal into the probe. This suggests that verbal person agreement is "interpretable" after all.¹⁰¹

The second remark is methodological. I have stated my proposal in the Principles & Parameters technical dialect that I am familiar with. However, it seems to me that the core of this proposal is

¹⁰⁰ This may possibly be extended to "controlled" subjunctive clauses of the Modern Greek type (cf. Terzi 1997 for a control analysis).

¹⁰¹ A question that remains open on the empirical side is how the person feature of DPs other than the subject is "checked". Following a relatively standard practice, it is possible to stipulate that all DPs are somehow syntactically associated to a designated functional head which can "check" their person feature. Indeed, in some languages direct objects and even prepositional objects overtly trigger person agreement on the selecting heads. The deeper question, however, is why these instances of person agreement are not sensitive to finiteness in the way that subject person agreement is.

independent of any specific technical implementation. Even more radically, it may be compatible both with formal and with functional approaches to natural language syntax. Presumably, the notions of logophoric centre and of person agreement belong in an area of syntax that is open to both types of investigation.¹⁰²

In any event, even from a formal perspective, I think that we can draw the conclusion that the syntactic licensing condition (1) cannot be accounted for within the boundaries of narrow syntax: it can be clearly stated, and sharpened in various respects, but a real explanation can be attempted only by examining the interrelation between the syntactic component and the semantic/pragmatic one. Perhaps the real explanatory level always lies, minimalistically speaking, "at the interface".¹⁰³

¹⁰² See Bertinetto (2000) for relevant discussion.

¹⁰³ See, among many others, Jackendoff (1997).

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