Imperfect Dreams: **The temporal dependencies of fictional predicates**[*]

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Introduction

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

(1)   Mario ha sognato che Carlo vinceva al totocalcio.

         Mario dreamed that Carlo won(IMPF) the lottery.

(2)   Mario ha sognato che Carlo ha vinto/vinse/vincerà al totocalcio.

         Mario dreamed that Carlo ha won/ won(SP)/will win the lottery.

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

These facts mark a basic difference between dream contexts and propositional attitudes, since the latter always require anchoring conditions to be satisfied by the embedded predicate. On the interpretive side, this

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

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

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

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

suggests that there is a close link between propositional attitudes and the temporal anchoring requirement, to the effect that the former are available only insofar the latter is.[4] The analysis of dream contexts will highlight how interpretive requirements and the morphosyntactic properties of tenses interact to determine the temporal interpretation.[5]

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

1. The interpretation of past tenses in Italian and English

1.1.   The distribution of the imperfect in Italian main clauses

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) Hai incontrato Gianni ieri mattina?
     Did you meet(IMPF) Gianni yesterday morning?

     Sì. Correva nel parco.
     Yes. he ran(IMPF) in the park.

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

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

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

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

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

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

Example (7a) is important because it shows that the imperfect, contrary to the other tenses of the indicative (and contrary to subjunctive forms too) can specify the temporal properties of something else than the event. That is, the imperfect can either contribute to the temporal interpretation of the event, as in (3)-(6), or to the (temporal) interpretation of a modal node.[10] This is not so with the present perfect or the Italian simple past which always specify the event.[11]

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

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

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

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

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

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

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

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

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

(i)   *John left tomorrow.

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

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

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

(ii)   Stasera canta Pavarotti.
    Tonight sings Pavarotti.

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

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

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

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

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

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

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

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

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

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

1.2. The imperfect tense in complement clauses

Let us turn now to embedded contexts:

The contrast between the use of the imperfect and the present tense shows that the former, in the given situation, conventionally implicates that (having been summoned by your boss) you've given up your original plan. By using the latter, on the other hand, the speaker conventionally implicates that he/she is still in doubt as to whether adhere to the boss' summoning, or ignore it and attend the concert.

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

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

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

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

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

When embedded under a verb of *saying*, the imperfect exhibits the same cluster of properties observed above. In (12) it can be interpreted as simultaneous with the matrix predicate, or as past with respect to it if an appropriate time reference is provided in the embedded clause — cf. (13). Analogously to (3), (14) is odd, because of the lack of an appropriate temporal reference, given that the superordinate predicate appears in the present tense. As in matrix contexts, the sentence can be rescued by introducing a suitable temporal reference — cf. (15).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i)   Cosa succede ogni giorno alle tre?
      What happens every day at five?

      Mario trova un libro.
      Mario finds a book.

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

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

(20)   a.   #Gianni ha detto che Mario raggiungeva la vetta   (*SIMUL)
               Gianni said that Mario reached(IMPF) the top

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

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

1.3. On the distribution of the English past forms

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

(21)   a.   John said that Mary was sick.   (SIMUL; SHIFTED)

         b.   John said that Mary ate a sandwich.   (*SIMUL; SHIFTED)

         c.   John said that Mary run.   (*SIMUL; SHIFTED)

         d.   John said that Mary reached the top.   (*SIMUL; SHIFTED)

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

     Moreover, the embedded English stative (*be sick*) is equivalent to the embedded imperfect form of the corresponding Italian stative predicate only as far as the simultaneous interpretation is concerned. As seen in €1.1, in fact, in Italian the shifted reading is available only if the context provides an appropriate temporal

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

(i)   a.   *Mary eats an apple.

      b.   Mary is eating an apple

(ii)   a.   *Mary runs

      b.   Mary is running

(iii)   a.   *Mary reaches the top

      b.   Mary is reaching the top

referent, this being due to the anaphoric properties of the imperfect. The English simple past, on the other hand, is not anaphoric. Therefore, (21a) can yield a shifted reading even if uttered out-of-the-blue.

2.   Sequence of Tense in fictional contexts

2.1 Complements of dream with the imperfect tense

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

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

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

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

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

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

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

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

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

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

(27)   John dreamed that Mary was happy.

(28)   a.   John dreamed that Mary ran.

b. John dreamed that Mary ate an apple.

c. John dreamed that Mary reached the top.

We saw above — cf. exx. (21b)-(21d) — that in English, past eventive predicates embedded in *saying* contexts can only be interpreted as shifted. In dream contexts this is not the case. As in the Italian cases, sentences such as (28a) or (28b) are well-formed even in the absence of a shifted reading. This way, the meaning of, e.g., (27b) is simply that the eating of the apple by Mary is the *content* of the dream, and nothing is said about the temporal relation between such an event and the dream itself, or the utterance.

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

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

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

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

Such a corollary of our hypothesis can be tested in a subtle, but telling way by resorting to the readings we dubbed *modal* in §1.1. We argued that when a future-oriented temporal adverbial (in a sentence final position) is used with the imperfect, the tense cannot directly constrain the eventuality, and the sentence acquires a particular *modal* interpretation. The conclusion was that in these cases a hidden modality node is present, receiving its temporal location from the tense. In terms of anchoring conditions, in (7a) or (17) the context enforces temporal anchoring, and such a requirement must be satisfied by the imperfect, by making its temporal value available. The imperfect, however, cannot accomplish such a goal by constraining the event (which is independently specified to take place in the future), but can only constrain the hidden modal projection.[17]

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[17]Functionally, tenses are the devices for satisfying anchoring requirements. Anchoring requirements, in turn, aren't simply conceived of as means for temporally locating eventualities, but, more perspicuously, for temporally locating them with respect to designated *anchors* — i.e., the utterance, in matrix context, and the

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

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

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

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

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

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

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

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

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

Another consequence follows from the hypothesis that dream contexts are temporally non-anchored. Consider the possibility that temporal anchors are available for reference only thanks to the anchoring

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matrix eventuality, in complement clauses. Many of the differences among tenses, including those encoded by mood, can be shown to be reducible to morphosyntactic and interpretive differences in the way they comply with the anchoring conditions.

This account can also shed light on the differences and trade-offs between tenses and locating temporal phrases. Functionally, the latter, and only the latter, 'locate' the eventuality, the tense being only involved in anchoring conditions. Many of the examples discussed in the text — most notably, those yielding the modal readings — are better seen as cases in which tenses conflict with temporal phrases. E.g., temporal phrases might impose requirements — e.g., future orientation — that a tense such as the imperfect cannot comply with. In the cases discussed in the text the conflict is solved by making an extra eventuality available — by means of the hidden modal projection — which is, in turn, constrained by the tense. As already observed, the possibility of resolving such conflicts by projecting null (modal) nodes is constrained by language-specific factors. Thence, although the English simple past can be argued to share some of the properties of the Italian imperfect, the English counterparts of the Italian modal readings of sentences with the imperfect do not exist because English hasn't (or does not allow) null modals.

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

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

(31) A: Cosa è accaduto ieri alle tre?
      What happened yesterday at three?

      B: Non so. In quel momento dormivo.
      I don't know. At that moment I was sleeping.

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

(32) a. Gianni credeva che in quel momento Maria mangiasse una mela.
          Gianni believed that in that moment Maria ate (PAST SUBJ) an apple.

      b. Gianni ha detto che in quel momento Maria mangiava una mela.
          Gianni said that in that moment Maria ate (IMPF) an apple.

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

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

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

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

Example (33) contrasts with the following:

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

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

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

Note that this conclusion is not *a priori* necessary. One might accept that anchoring conditions — namely, the necessity to connect events to some distinguished eventuality such as the utterance or the matrix one — need be explicitly enforced, and that when this is not the case, events are not connected to any temporal anchor. At the same time, it is logically possible that the entities which in a given context usually play the role of temporal anchors are still available for reference. That is, one might entertain the logical possibility that the entity x which usually plays the role of temporal anchor though not available as a temporal anchor — given the absence of anchoring conditions — can nevertheless be used by other referential processes. In the case of a subordinate clause C, the event that usually plays the role of temporal anchor is the matrix eventuality e. Such an event, if the hypothesis were correct, would not be available as a temporal anchor, but could be accessible to other referential processes originating from within C. Examples such as (33) show that this is not the case.[19]

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

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

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

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

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

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

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

2.2. Evidential dreams

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

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

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

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

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

(37)   a.   L'esame di matematica si svolgerà la settimana prossima.
              The math examination will take place next week.

        b.   L'esame di matematica si è svolto la settimana scorsa.
              The math examination took place last week.

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

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

Here we have two discourses introduced by either (37a) or (37b). These two sentences differ with respect to the way they locate a given event, the math examination: in the future, in (37a), and in the past, in (37b). The sentences in (38) are two possible continuations, both consisting of a *dream* context with a past tense in the

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

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

subordinate clause and a pronoun taking the event of the first sentence as antecedent. In (38a) the embedded tense is the imperfect, whereas in (38b) it is a present perfect. Now, (38a) is a possible continuation for both discourses in (37). That is, both (37a)+(38a) and (37b)+(38a) are well-formed discourses. The sentence in (38b), however, is a possible continuation only for (37b), not for (37a) — that is, (37b)+(38b) is a well-formed discourse, but (37a)+(38b) is not. The reason for the difference is that the combined effect of the absence of anchoring and of the non-temporality of the imperfect makes it possible for the pronoun in (38a) to refer both to the future event of (37a) and to the past event in (37b). On the other hand, the ill-formedness of (37a)+(38b) shows that the present perfect is anchored — that is, it constrains the embedded event, forcing the reference of the pronoun to be in the past.

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

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

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

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

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

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

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

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

If correct, such a result cannot be due to the properties of dream contexts, for we have shown that there are reasons to think that these contexts do not enforce anchoring conditions. Rather, the availability of temporal anchoring with non-imperfect indicative tenses must be due to some property distinguishing them from the imperfect. We will return to these facts in €3, where it is argued that in this case the sentence works as a propositional attitude context, conveying a special meaning, which will be called *evidential*, because it shares at least some of the properties of traditional evidentials and epistemics.

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

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

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

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

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

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

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

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

Then, the disciples go around the country proclaiming:

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

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

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

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

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

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

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

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

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

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

Consider the possible continuations given in (48):

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

      b. Marilyn Monroe=Norma Rae

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

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

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

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

3. Towards a Theoretical Account

To summarise the discussion so far, the generalisations emerging from the data are the following:
(i) Dream contexts do not enforce temporal anchoring — that is, they do not require that the embedded event be temporally connected with, e.g., the matrix eventuality.
(ii) The imperfect can both comply with anchoring conditions, as in many matrix and subordinate contexts, and provide non-temporal readings if anchoring conditions are not operative, as in dream contexts.
(iii) Non-imperfect indicative forms always give rise to anchored eventualities. Their use in dream contexts results in an evidential reading.

3.1. Propositional attitudes and temporal anchoring

Point (i) marks a major difference between dreams and ordinary attitude contexts, where temporal anchoring is always enforced. As is well-known, propositional attitude contexts divide according to mood selection. Some of them require the indicative, yielding double access readings (henceforth, DAR) — that is, the eventuality of the subordinated clause is anchored with respect to both the matrix eventuality and the utterance (Ogihara, 1995; Abusch, 1997; Giorgi & Pianesi, 1999a). When the propositional attitude verb selects the subjunctive, things are somewhat more complex; however, for our present purposes we can maintain that anchoring only obtains with respect to the matrix eventuality. Thus we can conclude that propositional attitude contexts always require the embedded event to be temporally anchored to the matrix eventuality.[25]

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[25]It could be argued that *dream* contexts are close to perceptual reports, a possibility suggested by the availability of the paraphrases *see in a dream*.
Although it is not possible to fully discuss the various kinds of perceptual reports here, let us notice that there is a clear difference between dream contexts and 'ordinary' perceptual reports. The latter, in fact, clearly select an anchored complement clause:

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

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

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

In the language of possible world semantics, these considerations would amount to saying that a wisher does not simply locate him/herself in a world in which the given proposition is true. He/she needs to wish that that world be the actual world. Similarly, a subject believes that *p* iff he/she locates him/herself in a world in

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

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

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

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

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

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

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

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

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

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

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

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

which *p* is true, *believing* that that world is the actual world.[26] Thus, propositional attitudes can be described as establishing a relationship between the subject and a complex object consisting of the actual world and the relevant proposition.

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

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

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

The crucial point, therefore, is the presence vs. absence of a certain relationship between the subject (of the attitude) and the relevant world. We suggest that such a crucial ingredient be understood in terms of the capability of the subject to locate him/herself, by resorting to *egocentric* coordinates. An attitude by a subject *X* towards a proposition *p* is then dependent on whether *X* locates him/herself in the relevant world. Similar ideas can be found, in different forms, in various accounts of propositional attitudes: e.g., it is present in Lewis' (1979) *centred worlds*, which are defined as "..pairs consisting of a world and a designated space-time point therein" (Lewis 1979) where such a point is to be understood as providing the subject's coordinates. Also, it can be found in Stalnaker's (1984) *diagonal* construction, according to which "..the subject of the attitude and the (very episode) of his/her thought exist in all the possible situations which define the subject's attitude". Finally, it is a constitutive element of approaches based on the idea that propositional attitudes are *token reflexive* (Reichenbach, 1947) in that their content makes room for, and requires the presence of the very

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

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

event token (be it mental or not) which originate the propositional content, as in Higginbotham's (1995) *tensed thoughts*. This can be spelled out by requiring that the truth conditions for the object of an attitude contain the eventive variable of the matrix clause eventuality. So it seems that all these theories share the insight that having an attitude towards a propositional content requires, and is dependent on the possibility that the subject and the very thought event/time be a constituent of the thought content.

If something like this is on the right track towards providing an understanding of the link between subjects and propositional contents (in propositional attitudes), then the facts discussed in €1 and €2 concerning the presence/absence of temporal anchoring can be explained as follows: propositional attitudes require a connection between the subject and the propositional content of the attitude. Such a connection, in turn, can be understood in terms of the possibility for the subject to locate him/herself in the propositional content. Lastly, the localisation function relies on subject's egocentric coordinates. We can then see temporal anchoring conditions as (a set of) constraints granting that the relevant connection be established at the temporal level. Adopting the idiom of Higginbotham's *tensed thoughts*, reference to actuality, hence to the subject's localisation, in the content of the propositional attitude amounts to requiring that the attitude eventuality—e.g., the wishing, believing, fearing, or saying—be present therein, and that it be connected with the event which is the object of the attitude itself. Conversely, the lack of temporal anchoring makes is a reflex of the impossibility to relate the states of affairs depicted by the subordinate clause to actuality.

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

To conclude, we have proposed that the observed connection between propositional attitudes and temporal anchoring be explained by hypothesising that the latter is a foundational element of the former: given a propositional content and a subject, the content is the object of an attitude of the subject only insofar as the subject and/or the very attitude episode are parts of the propositional content. Notice that, such a view leaves open the possibility that if temporal anchoring is enforced by independent, morphosyntactic means, then we

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

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

end up having attitudes of a sort even with predicates which, by themselves, do not convey any propositional attitude. We consider this possibility in the next section.

3.2. The Morphosyntax of Temporal Anchoring

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

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

(59) a. $[V1 [_{CP} [_C \text{che} [_{AgrP} ...[_{Agr} V2_i [\text{Agr} [_{TP}..t_i..]]]]]]]$

   b. $[V1 [_{MOOD-P} \text{che} [_{AgrP} V2_i [_{TP}..t_i..]]]]$

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

(60) $[.....[..[_C \tau_i C] [_{AgrP}...T_i..]]]$

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

This view implements the idea that many SOT phenomena in languages such as Italian and English are actually cases of generalised DAR, the latter being conceived of as the result of a double evaluation of the

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

(i) a. Mario credeva Gianni fosse partito

   b. $[_{V1} \text{credeva} [\text{Gianni} [_{MOOD/Agr} \text{fosse}_i [_{TP}.t_i..]]]]$

temporal features. In the case of subjunctive clauses, (57b), the resulting configuration is (59b): the τ-features do not move and are interpreted in T as relating the event only to the matrix eventuality.[31]

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

The temporal properties of non-imperfect indicative dreams discussed in €2.2 fit the analysis just given for normal indicative clauses. A sentence such as (42a) can be assigned the LF in (60), straightforwardly explaining the anchoring of the embedded event to the utterance and, more generally, the DAR pattern observed with so-called *epistemic dreams.*.

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

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

      b.   Mario sognò che ci fu un terremoto.   (evidential)
           Mario dreamed that there was(SP) an earthquake.

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

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

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

(62) a.   Alle tre Maria mangiava.
           At three Maria ate(IMPF).

      b.   [alle tre [T [VP ..]]]

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

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

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

and with the non-temporal reading of dream contexts:

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

Both (63) and (64) can be given the LF structure in (60), with the τ-features of the imperfect in C. The fact that they are interpretively inert because of agreement with the matrix tense accounts for the lack of anchoring with respect to the utterance event. The remaining difference between (63) and (64), the simultaneous vs. non-anchored reading, is entirely reducible to the presence vs. absence of anchoring condition. Consider the LF representation for the subordinate clauses of (63) and (64):

(65) $[[_C \tau_i][...[pro [T_i [VP ..]]]]]$

Here an empty pronominal takes the place of the overt temporal phrase of (62b). Besides this, the structure is substantially the same. Given the absence of an intrinsic meaning to the τ-features of the imperfect, there is no question concerning copying upon movement of the τ-features of the imperfect.[33] Therefore, (65) is tenseless and any further temporal meaning is simply the result of contextual requirements—namely, anchoring conditions. In the case of (63), they are in force, and simultaneity is obtained by letting *pro* take its reference from the anchor, the matrix event. This directly satisfies the anchoring conditions if, as argued above, they amount to the requirement that the matrix eventuality be represented in the clause. In the case of (64), where

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[32]It must be emphasised that the τ-features of the imperfect behave differently than the corresponding features of, e.g., the simple past. In the latter case we have a 'real' interpretive contribution, incorporating the eventive variable. In the case of the imperfect the τ-features are more similar to the number of gender feature of adjectives, which agree with those of the noun. One might venture that the τ-features of the imperfect are non-interpretable (Chomsky, 1995), though further investigation would be needed.
It is neither possible to fully justify the proposed classification of the imperfect as a non-true tense, or to discuss the consequences of such an idea. It can be shown, however, that it has consequences for the analysis of a number of phenomena the imperfect is involved in—e.g., its alleged anaphoricity, the so-called continuous/on-going readings, the distributional pattern with temporal phrases mentioned in fn. 9, the use of the imperfective in habituals, etc.

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

neither anchoring conditions nor temporal anchors are available, *pro* remains a free variable, deriving the non-temporal reading.[34]

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

C always requires indicative tenses.

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

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

4. Dreamers' attitudes?

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

There's still a point that deserves discussion, though: when a non-imperfect indicative tense is used, anchoring does not only obtain with respect to the utterance, but involves also the matrix event, cf. (36). This conforms to the theory developed in €3.2: a tense such as the simple past is a true tense, therefore its τ-features move to C by leaving a copy behind. The copy left in T must be interpreted and this can only obtain through local anchoring. In the end, the LF configuration for a sentence such as (39) is identical to that found in a propositional attitude context—namely, (60).

If this correct, the remaining problem is constituted by the fact that a verb such as *sognare* does not by itself enforce local temporal anchoring. The conclusion reached above concerning the relationships between

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

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

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

temporal anchoring and the presence of a propositional attitude entails that sentences such as (39) need not convey any attitude of the subject towards the content of the subordinate clause, because of the properties differentiating a verb such as *sognare* (dream) from verbs such as *credere* (believe). Ultimately, *sognare* (dream) is not a propositional attitude verb. But how can we accommodate such a predicament with the observation, equally following from the proposed theory, that in utterances of such as (39) there is local temporal anchoring, hence a subject's attitude? What kind of dreamer's attitude is involved in dream sentences with double access readings?

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

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

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

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

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

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

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

There is a contrast between the two discourses: the dream report in (68), where the imperfect is used in the last sentence, does not conflict with Eustolfo's belief that his treacherous enemy had already found the Holy Graal. The dream report with the perfect conditional, however, does create such a conflict, cf. (69). It is not only the fact that the perfect conditional locates the finding of the Holy Graal in the dreamer's future. There is the clear feeling that the conflict is due to the ascription of two contrasting attitudes to Eustolfo towards the relevant event: that it has already been accomplished by his treacherous foe, on the one hand, and that it is still available as an award for a blameless knight on the other. Hence, the report in (69) entails an attitude by Eustolfo towards the content of the subordinate clause that is not entailed by the report in (68).[36]

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

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

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

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

Notice that, differently from what happens in sentences featuring ordinary propositional attitude predicates, in (69) the presence of an attitude by the subject is entirely due to the morphosyntactic properties of the embedded verbal form, and is in no way determined by the matrix predicate. It is because of the morphosyntactic properties of the embedded verb that the event is locally anchored, this way also requiring the presence of an attitude by the matrix subject. [37]On the other hand, verbs such as *believe*, *fear*, *wish*, etc. have attitudes as part of their lexical meaning, the embedded verbal form only bearing the responsibility to suitably match such a requirement. The lack of similar lexical stipulations concerning *sognare* (dream) makes the determination of the relevant subject-oriented attitude heavily context-dependent. At least in the cases we have considered, the attitude towards the dream content arises after the dream, as a consequence of some

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

[37]Dream sentences with the perfect conditional exemplify the case of merely subject-oriented attitude induced by the embedded tense. We already saw that dream sentences with non-imperfect indicative tenses exemplify cases of utter-oriented attitudes similarly induced by the morphosyntactic properties of the tenses. The conclusion will be that the subject-oriented attitude found with non-imperfect tenses has the same origin: the morphosyntactic properties of the tense, and contextual information.

afterthought of the dreamer. This is in line with the remark in fn.28: whatever attitude Eustolfo comes to have with respect to the content of the dream, this is not an attitude he has because he is the dreamer.

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

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

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

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

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

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

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

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

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

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

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

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

5. Conclusions

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

In view of point (1) and (2), the evidential nature of non-imperfect dreams is a corollary of our theory. The temporal anchoring displayed by these contexts is, in fact, a consequence of the morphosyntactic and interpretive role of C, and of the fact that tenses such as the *passato remoto* (simple past) are 'true' tenses. Thus, local temporal anchoring, in non-imperfect dreams, is independent from requirements coming from the matrix predicate and— as discussed in €4—is strongly context-dependent. On the other hand, given the connection between propositional attitude and temporal anchoring, and the fact that in these cases there is also temporal anchoring to the utterance, it follows that the utterer too takes an attitude towards the dream content. This is exactly what the data discussed in €2.2 show: the presence of an utterer's attitude towards the content of the subordinate clause in the form of an epistemic evidential.[40]

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

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

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

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

A sentence such as (i) is a typical example of a reportive evidential, where the evidence is some previous report, *dictum*, signalled by the matrix clause. Similarly, in (ii) the evidence is something the utterer heard or was told. In both cases, the subordinate clause provides the main proposition. As can be seen, these sentences

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

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

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

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

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

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exhibit the full range of phenomenon discussed in €2.2 — namely, existence entailment and substitutivity of identicals.

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

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

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

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

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

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

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

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