A FREE-CHOICE ITEM HIDDEN IN VERBAL MORPHOLOGY

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This paper is couched within the hypothesis that verbal morphology can provide a determiner on the event description. It explores a particular construction in Greek and argues that it contains a free choice indefinite description. In the course of the investigation, the following topics are addressed as well: existential constructions, interval semantics, the meaning of Universal Perfect, temporal modifiers, raising.

1. Introduction

This paper is an investigation within the working hypothesis that verbal morphology provides a determiner on the description of the (VP)-event (see Tsoulas 1994, Portner 1995, Baker and Travis 1997, Beghelli 1998). According to the strongest version of this hypothesis, we have different types of verbal morphology because we have different types of determiners. I will not attempt to argue for such a strong statement. I will restrict myself to arguing that *some* types of verbal morphology differ on providing different types of determiners for the event-description. This paper is in certain ways a companion to Iatridou (2003). Wherever necessary, I will summarize some of its relevant points.

In this paper I focus on sentences like (1) and argue that we can detect a Free-Choice (FC) event description in the extended projection of the verb:

1. Echo   pende chronia na   dho   ton   Mano
   have.1sg five   years   NA   see   the   Mano
   lit: I have five years NA see Mano
   'It has been five years since I saw Mano' (to be refined)

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2. Comparing three constructions

2.1. The *pu-* and *since*-constructions

Consider the sentences in (2), which I will be referring to as the "*pu*-construction" because of the factive complementizer *pu* and in analogy to what I referred to as the *since*-construction in Iatridou (2003), which is also the English translation of (1)[1]:

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1. There are some variations on the *pu*-construction (A is the one in the text):

    (i) A: echi/ ine   pende   chronia   pu   ton   idhe   teleftea   fora
            has/ is   five   years   PU   him   saw   last   time

        B: echi/ ine   pende   chronia   apo   tote   pu   ton   idhe   teleftea   fora
            has/ is   five   years   from then   PU   him   saw   last   time

        C: echun perasi   pende   chronia   *(apo tote)   pu   ton   idhe   teleftea   fora
            have passed   five   years   from then   PU   him   saw   last   time

    There appears to be a dialectal split for the possibility of subject agreement on the matrix verb in A/B when the verb is HAVE (i.e. for the verb to not be in the impersonal 3rd singular). When the verb is BE, agreement is never possible, as far as I can tell.

    All three variations show the now familiar pattern with RB/LB behavior (see Iatridou, Anagnostopoulou and Izvorski 2001, von Fintel and Iatridou 2005).

    Variation B seems the partner of the following English phrase:

    (ii) It has been five years from/ since the time/ day that I saw him last

    Variation C is most similar to the following English construction:

    (iii) a. Five years have passed since I saw him last

         b. Five years have passed from/ since the time/ day that I saw him last

    Variation C and English (iii) seem to me to be garden-variety perfects, not temporal existentials, though nothing depends on this decision.

    One important difference between the versions A and B/C regards the possibilities for long distance readings in the clause that describes the eventuality. In the C versions lower readings are predictably available, given the A-bar operator involved in the relative clause:

    (iv) Echun perasi   pende   chronia   apo   tote   pu   i   Maria   nomizi
          have   passed   five   years   from   then   PU   the   Maria   believes
          oti   irthe   o   Kostas
          that   came   the   Kostas
          'Maria believes that Kostas arrived five years ago'

    The B variation permits a lower reading at least for some speakers, myself included:

    (v) Echi   pende   chronia   apo   tote   pu   nomizi   i   Maria   oti   irthe   o   Kostas
         has   five   years   from then   PU   believes the   Maria   that   came   the   Kostas
    'Maria believes that Kostas arrived five years ago'

    On the other hand, variation A does not permit long-distance readings:

    (vi) Echi   pende   chronia   pu   nomizi   i   Maria   oti   irthe   o   Kostas
          has   five   years   PU   believes the   Maria   that   came   the   Kostas
          (only reading: Maria believes something for 5 years)

2. (the *pu*-construction)

Echi/ine	pende	chronia	pu	pethane	o	thios	tu
has/ is	five	years	PU	died	the	uncle	his

'It has been five years since his uncle died'   (the *since*-construction)

The light verb can be either BE or HAVE. The *pu*-construction behaves in all relevant respects like the *since*-construction; I will not duplicate the tests here[2].

This difference between A and the B/C versions is significant in that it puts more support behind the possibility that *pu* in the A version is a factive complementizer and not part of a relative clause. If it had been the latter we would have expected long distance readings.

With the *since*-construction, I have found conflicting judgments on whether long-distance readings are possible:

(vii)   %It has been five years since Maria believes that Peter (has) left.

2. The only interesting difference that I have found pertains to their licensing of NPIs.

The *since*-construction licenses NPIs in the *since*-clause:

(i)   It has been five years since he budged an inch/ met anyone decent/ etc.

But the *pu*-construction does not:

(ii) a.

*echi	pende	chronia	pu	to	kunisa ap'edo
has	five	years	PU	it	moved from here

b.

*echi	pende	chronia	pu	piga	puthena
has	five	years	PU	went	anywhere

Within the theory according to which NPIs are licensed in Downward Entailing Environments (see Fauconnier 1974, Ladusaw 1977), we would have to start by showing that the *since*-construction provides a Downward Entailing Environment.

In order for the *since*-clause to be Downward Entailing, the truth of (iiia) would have to entail the truth of (iiib):

(iii) a. It has been two months since I had (any) dessert

b. It has been two months since I had baklava

This does not appear to be the case. Certainly (iiia) can be true without (iiib) being true, as for example in the case where two months ago I did not have baklava but had tiramisu. This means that the relevant environments are not Downward Entailing and yet they license NPIs. von Fintel (1999) noticed problems of this sort and argues for the following amendment to the Downward Entailing theory of licensing.

(iv) "We can define a notion of entailment that will only check whether an inference is truth-preserving under the assumption that all the conventional implicatures and presuppositions of premises and conclusions are satisfied" (von Fintel 1999).

von Fintel calls this type of entailment "Strawson Entailment." So here is what we have. As we saw, (iiia) does not entail (iiib). However, recall that the *since* construction has as presupposition that the eventuality in the embedded clause has, in fact, occurred, as it is built in as its LB. To check whether there is Strawson-Entailment, we need to satisfy the presuppositions of the relevant sentences. That is what is done in (v), below. (va) provides the environment whose Strawson-Downward-Entailing properties we are checking.

In a nutshell, a *pu-* and *since-* construction (in the Present Tense) like that in (2) mean that there are five years between the event of his uncle dying and now:

In our calculations we should assume the truth of (vb) along with that of (va). Now we can ask the question whether (vc) is entailed and the answer is that it is.

(v) a. It's been five years since I had dessert
b. Five years ago I had baklava
c. ——> It's been five years since I had baklava

So von Fintel provides us with a way to apply the Downward Entailing theory to capture the licensing of NPIs in the *since*-construction.

But what about the *pu*-construction? Shouldn't it be able to license NPIs in exactly the same way? Imagine that Downward Entailment is a necessary but not sufficient condition for NPI licensing. Recall Linebarger's (1987) Immediate Scope Constraint, according to which an NPI can be licensed by negation only if there is no operator that intervenes between negation and that NPI. This can be accommodated in the Downward Entailing account as well. This is not to say that the environment would cease to be DE. That is, the intervention effect of the intervening operators would not be due to the operators breaking or undoing the DE properties of the environment in question. The Immediate Scope Constraint would be an additional, independent condition (to be attributed to some other constraint, possibly locality-related). With respect to the *pu*-construction, we can apply the von Fintel-augmented DE approach and still find it DE. However, the presence of the factive complentizer *pu* is what causes the problem. In other words, a factive-marked complement cannot contain NPIs, even if it is DE. There are other arguments for this:

(vi) Nobody thinks that John ate anything

(vii) *Nobody found out that John ate anything

The NPI is not licensed in (vii), yet, it is easy to see that the environment remains Strawson-Downward-Entailing. The intervening factivity could be the problem in (vii). Consider also:

(viii) It has been five years since I met anybody that liked

(ix) *It has been five years since the time that I met anybody that I liked

Once we put an overt definite in (ix), the NPI is not licensed. And if the position that factivity should be assimilated to definiteness is correct (Melvold 1991; Baker and Travis 1997), then the unacceptability of (ix) is akin that of NPIs in the *pu*-construction.

But this conclusion is in conflict with the tendency that we have found that the *pu*-construction and the *since*-construction behave alike. There are several ways to go from here. We could say that the *since*-construction and the *pu*-construction are not *that* alike and leave it at that. Alternatively, we could say that even though the truth of the *since*-clause is presupposed, the *since*-clause is not a grammaticalization of a factive description of the eventuality. As a result, there is no intervention effect. Alternatively, we could say that the licensing conditions for *any*, and other English NPIs, are somewhat different from that of Greek NPIs, as has been argued by Giannakidou (1997). However, if we said that English *any* is different from Greek NPIs in being licensed in factive environments, we would wrongly predict that (vii) is fine too. So perhaps the best way to go is to say that the *since*-clause is not grammaticalized as a factive clause.

3.   five yrs
   [E]...................................NOW
   L(eft) B(oundary)   R(ight) B(oundary)

The meaning of the *pu/since*-constructions is roughly this:

4. $\exists$t [5 years (t) & t 'A the TS & (LB (the TS)= the t' [his uncle died at t']) & RB (the TS)=NOW]

In prose, there are five years in the Time Span whose Left Boundary is the event of his uncle dying and whose Right Boundary is the Time of Utterance. I would like to refer the reader to Iatridou (2003) for more details[3]. The conclusion that we take from that paper is that the event in *pu/since*-clauses behaves like a definite description. That is, it has an existential presupposition (the event must have taken place) and a uniqueness presupposition (there should be only one event that fits the event description).

The existential presupposition is intuitively easy to accept: if his uncle has not died, then (2), or its negation, suffers from presupposition failure. Moreover, it is clear that the existence of this event is not an assertion of these sentences. The assertion is about the "amount of time" between the events and the Time of Utterance. Again, see Iatridou (2003) for more details on the exact nature of this presupposition.

The uniqueness presupposition on the event in the *pu*-clause can be illustrated as follows:

5. o   Kostas pandreftike   stin   eklisia ton   Agion   Apostolon
   the Kostas was married in the   church   of the Holy   Apostles
   'Kostas got married in the church of the Holy Apostles'
   Echi/ine   pende chronia pu   pandreftike
   has/ is   five   years   PU   got married
   'It has been five years since he got married'

6. o   Kostas pandreftike tris   fores   stin   eklisia ton   Agion Apostolon
   the Kostas was married three   times   in the   church   of the Holy Apostles
  'Kostas got married three times in the church of the Holy Apostles'
 #*Echi/ine pende chronia pu   pandreftike
   has/ is   five   years PU   got married
   'It has been five years since he got married'

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3. In Iatridou (2003), mention was made of the "Perfect Time Span" instead of "Time Span," as that paper was cast in the context of a discussion about the Perfect. That need not preoccupy us here.

The second sentence in (6) suffers from the fact that there is no unique marrying event that the definite description in the *pu*-construction can pick out. The sentence becomes fine once we add "ya teleftea fora" ('for the last time'), but by doing that we have again created a uniquely referring event description. More arguments for the uniqueness presupposition can be found in Iatridou (2003).

In short, the *pu*-construction contains a definite event description of the event in the *pu*-clause, since it has both an existential and a uniqueness presupposition. From the point of view of what is to come, it is important to realize that the time span in (3) is empty of events of the type of his uncle dying and it is also important to realize how this is derived in the *pu/since*-constructions: because the *pu/since*-constructions are felicitous only with event descriptions that pick out unique events, there exist per force no other events of the relevant type in general, and therefore none are to be found in the particular time span either.

2.2. The na-construction

Now, consider sentence (1), repeated below:

7. Echo   pende   chronia na   dho ton Mano   (the *na*-construction)
   have.1sg fiv   years   NA   see the Mano
   'It has been five years since I saw Mano' (to be refined)
7′.   five yrs
   [E].................................NOW
   L(eft) B(oundary)   R(ight) B(oundary)

Sentence (7) seems similar to the *pu*- and *since*-constructions in that it appears to convey that there are five years in the time span formed by the event E of my seeing Mano and the Time of Utterance. For this reason I gave it the same translation as that for the *pu*-construction, namely the *since*-construction. This will change in a little while once we start focusing on differences between sentences like (7) and the *pu*-construction.

The particle *na* is an INFL-area particle. Its presence is widespread and indicative of infinitival or subjunctive-like properties for the clause. There is a long debate about its exact nature, which I will not go into here. I will just be glossing it as 'NA.' I will be referring to sentences like (7) as the "*na*-construction," in opposition to the *pu*-construction. However, this is truly a misnomer, as the particle "na" appears in many more environments.

2.3. Similarities and differences between the pu/since- and na-constructions

There are several similarities between the *na*- and *pu*-constructions. There is an existential presupposition on the LB eventuality in both constructions. That is, in

both cases the event of his uncle dying and of seeing Mano must have taken place, or the constructions are infelicitous. We will return to the question of the uniqueness presupposition shortly.

As with the *pu*-constructions, the temporal adverbial is obligatory in the *na*-construction[4]:

8. *Echo   na   ton   dho
      have   NA   him   see

On the surface, the *na*-construction differs from the *pu*-construction on a variety of morpho-syntactic points; for example, agreement on the verb (to which we will return) and the fact that the *pu*-construction can contain either HAVE or BE, while the *na*-construction is restricted to HAVE. But there are important differences between them in their conditions of use and we can learn a lot from these differences. Consider what happens when the two constructions are combined with unique, non-recurring events (for reasons of space, the *since*-construction will appear as the translation of the *pu*-construction, though it is itself a member of the paradigm).

9. Echi/ine pente chronia pu pethane i   gata tu
     has/ is   five   years   PU died   the cat his
     'It has been five years since his cat died'
10. *# i   gata tu echi pende chronia na   pethani
        the   cat his has   five   years   NA   die

It is obvious what is wrong with (10) once we consider what we need to accommodate to make it good: (10) conveys that his cat is able to die more than once.

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4. The sentence is grammatical on the relevant reading if one makes a particular gesture with one's hand (circling clockwise at the elbow) which indicates 'a long time'. Otherwise, it is close to a sentence that is interpretable as a modal:

(i) echo   na   dho   ton   yatro   stis 5
    have.1sg NA see   the   doctor at   5
    'I have to see the doctor at 5'

However, the Greek construction is not identical to the English *have to* translation. For example, consider the following, where in English *have to* can appear in place of *must* but in Greek it cannot:

(ii) a. 'I must/have to see John in order to understand what he has'
    b. prepi/ *echo   na   dho ton Yani ya na   katalavo ti   echi
       must/ *have.1sg na see the Yani in order to understand what has
    c. If you want good baklava, you must/have to go to Chatzi's
    d. An thes   kalo baklava   prepi/ *echis na   pas stu Chatzi
       if   want.2sg good baklava, (you) must/ have na   go to   Chatzi's

In this, (10) feels akin to the English negated perfect:

11. #His cat hasn't died in five years

However, there is an important difference between the *na*-construction and the English negated perfect: the *na*-construction, like the *pu/since*-constructions, clearly has an existential presupposition on the event. That is, (10) conveys that the cat died (at least) one time (at least) five years ago. On the other hand, the negated Perfect in English has no such presupposition:

12. A: Has the patient had a stroke?
      B: The patient hasn't had a stroke in five years/ in the five years that I have
         been working here. I don't know about before that.

Going back to the contrast between (9) and (10), what do these facts tell us? Unique events are fine in the *pu*-construction. In fact, in Iatridou (2003), I argued that they are necessary for the *since*-construction and therefore by extension to the *pu*-construction. However, for the *na*-construction to be felicitous, there should exist the possibility of more than one occurrence of the event-type described in the *na*-clause. That is, the *na*-construction is best when in principle, more than one event fits the description of the LB-eventuality. I will call this the "plurality presupposition" of the *na*-construction but it should be understood as meaning "possibility for plurality." It follows that the *na*-construction is infelicitous with event descriptions that refer to events that by their nature are unique. This is of course the exact opposite of what we have seen in the *pu/since*-constructions.

This difference between them makes us also understand better when each of the *pu*- or *na*-constructions is used. When an event either happened only once or can be uniquely described (when we have a uniquely referring LB-event description), the *pu*-construction is used. When we have more than one event that fits the LB-description, the *na*-construction is used. Compare the contrast in (14) - (15), in the context of (13):

13. o   Yanis   travmatistike prin   apo   dheka   chronia,
    the   Yanis   was injured   before from   ten   years,

    prin   apo   pende chronia ke   prin   apo   ena   mina
    before from five   years   and   before from one   month
    'Yanis was injured ten years ago, five years ago and one month ago'

The unmodified (i.e., without "for the last time") *pu*-construction is not possible:

14. Me ala   loyia, echi ena mina pu travmatistike *# (ya teleftea fora)
 with other words, has one month PU he was injured *# (for the last time)

But the *na*-construction is just fine:

15. Me ala   loyia, echi ena mina na travmatisti
 with other words, has one month NA was injured

The status of (14) (without the expansion) is due to the infelicitous use of a definite description when there is more than one individual that fits the description. As with (6), the sentence with the expansion is fine because then we create uniquely referring event-descriptions. On the other hand, the *na*-construction is perfectly fine as its plurality presupposition is satisfied in the context of (13).

We can understand this pattern once we make the assumption that in contrast to the *pu/since*-constructions, which contain a definite description of the LB-eventuality, the *na*-construction contains an indefinite description. It is not possible to describe unique events with indefinites. The unacceptability of (14) is akin to the unacceptability resulting from an indefinite determiner on NPs referring to things which are presupposed/known to be unique. When a definite description is warranted, a definite description must be used and an indefinite description is infelicitous (Hawkins 1978, Heim 1991, and others). The possibility of plurality is required for the felicitous use of indefinites:

16 a. I watched a soccer game last night. The/*a/*one referee was very unfair.
 b. I watched a married couple play chess. The/*a/*one man had no endgame.

When the context does not entail uniqueness, an indefinite must be used.

17 a. I watched several games over the weekend. A/one/*the referee was very unfair[5].
 b. I watched many married couples play chess yesterday. A/one/*the man had no endgame whatsoever.

The incompatibility of unique events with the indefinite *LB*-event description of the *na*-construction also predicts the following contrast:

Pu/since-construction:
18. Echi/ine dhio chronia pu ton idha   ya teleftea/ proti/triti/ etc. fora
 Has/is   two years   PU him saw.1sg for last/   first/ third/etc. time
 'It has been two years since I saw him for the last/first/third/etc. time'

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5. Unless it is clear that all the games had the same referee.

na-construction:

19.*Echo   dhio   chronia na   ton   dho   ya   teleftea/proti/ triti   fora

have.1sg two   years   NA   him   see   for   last/   first/   third   time

We saw earlier how modifiers like *first, last, third* etc. can be used in the *pu/since*-constructions to yield a unique event description. This explains the acceptable status of (18). On the other hand, the *na*-construction in (17), as an indefinite, has a plurality presupposition and (19) suffers from what **a first/last/third person in the row* suffer from. In other words, we see behavior that supports the following difference between the *pu-* and *na*-constructions (though we will see more differences later on):

20. *pu/since*-constructions:

...since (the time of[6]) **the** event of VP (my seeing him)

21. *na*-construction:

...since (the time of) INDEF (**an(y)**) event of VP (my seeing him)

3. A free-choice item

In the previous section we saw that there is good reason to believe that the *na*-construction contains an indefinite event description. In this section we will address the question of the more exact nature of INDEF.

An intuitive description of the constructions we have been looking at is that there is a (temporal) zone that is empty of events of a certain type. We saw how we derived this "emptiness" in the case of the *pu/since*-constructions: as the event in the *pu/since*-clause is unique, there simply is no other such to be found in the time span between LB and RB. We will see later how to derive the emptiness of the time span in the *na*-construction. In addition we saw that in the *na*-construction the event has to be something that is in principle repeatable (the plurality presupposition). For this reason, I will run the discussion in this section in parallel to that of a close topological analogue suggested to me by Irene Heim (p.c.) (where INDEF can rewrite as *a* or *any* in English):

22. We are five miles (away) from INDEF gas station

The "gas station sentence" appears similar to the *na*-construction in that it also creates a zone empty of a certain type of individual. To highlight the parallel, consider the following alternative paraphrase for the *na*-construction:

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6. See Glasbey (1992) for arguments that "a temporal entity from [an] event entity" (p. 289) is not all that straightforward and that we should maintain a distinction between events and times.

23. We are five years (away) from INDEF event of my seeing him

For both the *na*-construction and the gas station sentence, the question is what precisely the nature of INDEF is. The gas station sentence has its own intrinsic interest but here we will be focusing only on those of its properties that provide a bridge to understanding the *na*-construction.

The first option to consider for INDEF in (22) - (23) can be ruled out quickly, namely that of a specific indefinite[7]. The gas station sentence (with expansion *a*, not *any* for INDEF) can certainly be understood as containing a specific indefinite, as for example when we are ignorant about any other gas station closer by, or when we cannot exclude that there are others closer than five miles to us, or even when we know that there are. So the reading with the specific indefinite could be paraphrased as follows:

24. There is a gas station that we are (exactly) five miles away from

Crucially, (24) can be truthfully uttered also when there is another gas station that is closer by than the one the speaker has in mind.

However, the *na*-construction cannot have this interpretation at all. That is, if sentence (25) is true, there is no other event of my seeing him that is closer than five years to us.

25. Echo   akrivos   pende   chronia   na   ton   dho
    have.1sg exactly   five   years   NA   him   see
    'It has been exactly five years since I saw him'

This is a crucial difference between the gas station sentence and the *na*-construction and it tells us that even if INDEF can be a specific indefinite in the gas station sentence, INDEF cannot be a specific indefinite in the *na*-construction. We conclude then that the *na*-construction does not contain a specific indefinite[8]. As we are interested in the gas station sentence only insofar as it can help us understand the *na*-construction, I will not be discussing the specific indefinite interpretation of the gas station sentence any further.

The next option to consider for INDEF is that of an existential quantifier. It

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7. However one implements specific indefinites.
8. Another argument supporting this same conclusion is that in the interpretation of IN-DEF as a specific indefinite in the gas station sentence, it is possible to have a pronominal refer back to it:
   (i) We are five miles from a gas station but it is a very expensive one.
   Such pronominal back reference is not possible with the *na*-construction, though there are means to refer back to events in Greek (see Iatridou and Embick 1997).

seems hard to make this work in our cases. These sentences would be predicted to mean that we are five years from some event of the relevant type and therefore it would again be wrongly predicted that the *na*-construction would be true if there were closer events. In fact, in the absence of negation it is hard to imagine how the right meaning of the *na*-construction would be derived if INDEF were an existential quantifier.

The final option for INDEF that we will consider is a free-choice indefinite (this was proposed for *na*-clauses inside relative clauses in Beghelli 1998). I will follow a common practice and assume that FC indefinites are wide-scope universals, augmented by whatever properties FC items differ in from other universal quantifiers. I will not go into what all FC adds to the universal force; there is ample literature on this topic.

Let's start with the gas station sentence. If we are dealing with a Free-Choice (wide-scope) Universal then the gas station sentence would mean the following:

26. We're five miles from every+FC gas station
27. Every+FC station is such that we are five miles from it

One might think that (26) – (27) would force us to a reading where we are at the epicenter of a circle of a five-mile radius, on the periphery of which are gas stations—and this is not necessarily the meaning of the gas station sentence. But this is not a problem: if *five miles* stands for *at least five miles*, we get the correct meaning of the gas station sentence:

28. Every+FC station is such that we are at least five miles from it

Similarly, on this view of INDEF, the *na*-construction would look as follows:

29. Every+FC event of us seeing him is such that we are at least five years from it

One further argument in favor of (29) can be found in how we derive the result that a certain time span is empty of events of a certain sort in each of the three constructions that we have been looking at. In the *pu/since*-constructions we got this result by having the definite event description picking out the unique (or uniquely salient) eventuality that fit the description of the *pu/since*-clause. Per force, the time span had no other events of this sort. But as we also saw, the *na*-construction has partially overlapping truth conditions in that the time span in the *na*-construction is also empty of events of the relevant sort.

How can we derive the desired result for the *na*-construction? Here is a first approximation of the answer. If we are five years away from any event of the relevant type then we are five years away from the most recent event of the relevant type – the way that being five miles away from any gas station entails

we are five miles away from the closest gas station. I will conclude then that a free-choice indefinite (event) description in the *na*-clause produces the right results with respect to this important interpretive feature of the *na*-construction[9,10].

9. This is not to say that *all na*-clauses are necessarily free choice indefinites. There are different types of *na*-clauses and the cases would have to be looked at individually.

10. One might raise the following two objections to the position that INDEF in the gas station and *na*-construction is FC.

The first possible objection has to do with the fact that FC *any* has been claimed to state a policy (Dayal 1998). Consider the following:

(i) This store accepts checks from every/ any bank

In the expansion with *any*, the sentence is said to convey the existence of a policy that if a new bank is built, this store will accept its checks. This is said to be due to *any* ranging over possible banks as well as actual ones. No such policy is entailed with *every*. Our gas station sentence, however, states no policy. If another gas station is built, it is not claimed that it will be at least 5 miles from where we are. Similarly, there is no matter of policy in the *na*-construction. Is this an argument that *any* in the *na*-construction and the gas station is not FC (but NPI, for example)? There are languages where the FC items are not homophonous with NPIs. Greek is such a language. In Greek (Italian and other languages), the gas station sentence contains a FC item (and cannot contain a NPI):

(ii) Imaste   pende   milia   apo   opiodhipote   venzinadhiko
     we-are   five   miles   from   whatever-FC   gas station

This is expected given everything that we have said so far. But what about the issue of policy implications? There is no policy about where gas stations can appear in the Greek gas station sentence any more than there is in the English one. One might respond by saying that Greek FCs never implicate a policy. But this is not so. In other policy-testing environments, Greek behaves the same way as English with respect to policy implications, as long as the environment contains Imperfective Aspect:

(iii) Afto   to   magazi dhexotan/   *dhextike epitayes apo   opiadhipote trapeza
      this   the   store   accepted.IMP/ *PRF   checks   from   FC   bank

In short, in Greek, a policy-implication is a possible but not a necessary correlate of overt FC items (possibly a correlate of the Imperfective). This means that the absence of policy implications with the covert FC item I am postulating in the *na*-construction is not an argument against the proposal that there is a FC description in the *na*-construction. Given the absence of policy implications in the English gas-station sentence with *any*, I will assume that for English as well, policy implications are not a necessary correlate and will interpret von Fintel (2000) as essentially arguing that arbitrariness is what is involved with FCs and policy is one possible source for that but not the only one.

4. The structures of the *pu/since-* and *na*-constructions

We have seen how the meanings of the *pu/since-* and *na*-constructions differ. But how do their structures differ? Consider the following examples of *na-* and *pu*-constructions, where the temporal pivot is in square brackets:

30. Echo [pende chronia] na   dho   ton   Mano
    have five   years   NA see   the   Mano
31. echi/ine [pende chronia] pu   idha   ton   Mano
    has/is   five   years   PU   saw.1sg   the   Mano

The *na*-construction permits a greater variation in the choice of temporal pivot than the *pu*-construction. The *na*-construction permits amount pivots as well as *apo* ('from/since')-adverbials. The *pu*-construction permits only the former:

32. Echo   na ton dho   a. pende   chronia
    have.1sg NA him see   five   years
                                   b. apo   to 1991/   apo   tote/
                                      from   1991/   from   then/
                                      'since 1991'   'since then'
                                   c. apo   tote pu   fagame mazi
                                      from   then PU   ate.1pl together
                                      'since we ate together'

The second possible objection to INDEF being FC has to do with a fact that we saw earlier, namely, the LB-eventuality is presupposed to have occurred. This is what we had called the existential presupposition of the *na*-construction. The question is whether we can postulate a FC item in a context with existential presuppositions. However, the fact is that the Greek gas station sentence (and an Italian version), which unambiguously contains a free-choice item, also has an existential presupposition, as shown in (ivb), and as expected the English gas station does too

(iv) There are no unicorns...
   a... # Therefore, we are five miles from any unicorn.
   b... # Eimaste   pende milia   apo   opiondhipote   monokero
         we are   five   miles   from   FC   unicorn
   Contrast the unacceptability of (iv) with:
(v) There are no unicorns. Therefore there are no unicorns in our parking lot.
   So there is no way around the fact that at least some FC behave as if they are compatible with existential presuppositions. Hopefully future work will permit us to understand the environments under which FC items appear with existential presuppositions. I conclude that these two possible objections to INDEF being FC have been overcome and that we can maintain the hypothesis that the *na*-construction contains a FC indefinite description of the LB eventuality.

33a. ine/ echi [pende chronia] pu to idha
    is/ has five years PU him saw
    'It has been five years since I saw him'
  b. *ine/ echi [apo to 1991] pu ton idha
    is/ have [since the 1991] PU him saw
  c. *ine/ echi pu ton idha [apo to 1991]
    is/ has PU him saw [since the 1991]

There is no reason to believe that in the *pu/since*-construction the temporal pivot is anything other than a temporal amount, specifically, the amount phrase which specifies how much time fits in the time span between the LB-event and the RB. In the *na*-construction, however, the fact that the temporal amount pivot can be substituted by *apo* ('from/since')-adverbials should make us pause. Such adverbials are typical LB-adverbials in the regular Perfect (just like *since*):

Existential Perfect:
34. Apo tote/ apo to 1991, echo pai tris fores sto Londhino
    since then/ since 1991, have.1sg gone three times to the London
    'Since then/ since 1991, I have gone to London three times'
35. Apo tote pu efiges, echo pai tris fores sto Londhino
    since PU left.2sg have.1sg gone three times to London

Universal Perfect:
36. Afto to vivlio o Yanis to grafi apo to 1990
    this the book the Yanis it writes since the 1990
    'Yanis has been writing this book since 1990'

Sentence (36) is the equivalent in meaning of the English Universal Perfect, as its translation indicates. Greek (among other languages) cannot express the meaning of the U-Perfect with the Perfect morphosyntax (see Iatridou, Anagnostopoulou and Izvorski 2001 for the reason why). To convey the relevant meaning the simple tenses are used, but with the exact same set of adverbials that permit or force the U-Perfect reading in English. I will still be referring to the meaning of (36) as the "U-Perfect reading" but the reader should keep in mind that in Greek the actual morphosyntax for this reading is not the perfect.

So one class of temporal pivots of the *na*-construction are actually LB-adverbials. The other class, as we saw, seemed identical to the temporal pivot in the *pu*-construction, namely, temporal amounts like *five years*.

What we see then, is this: in the *pu/since*-construction, the LB of the time span is the event in the *pu/since*-clause. The temporal amount pivot describes the size of the time span.

In the *na*-construction, on the other hand, we have the event of the *na*-clause

and one of a temporal amount pivot or an LB adverbial. The obvious question that arises is the following: when we have an LB adverbial, what role does the event play? It cannot be the LB of the time span, unlike the event in the *pu/since*-construction, which *is* clearly an LB. Here, schematically, is the problem:

37.

	Event in *pu/since*- or *na*-clause	Temporal amount pivot	LB-adverbial
Pu/since-con-struction	Sets Left Bound-ary of time span	Specifies size of time span	Ungrammatical
Na-construc-tion	Role as yet un-clear	Role as yet un-clear	Role as yet un-clear

However, it turns out that there is homophony in Greek that has fooled us. In English, we have the temporal amount phrase *ten years*, which appears in the *since*-construction, among other places. We also have *for ten years*, which is an LB-adverbial, which appears in *he has been writing this book for ten years* (see Iatridou, Anagnostopoulou and Izvorski 2001 and references therein).

In Greek the equivalent of English Perfect-level *for ten years* does not have the preposition, i.e., it is plain *dheka chronia* ('ten years')[11]:

38. Ksero   ton Kosta dheka chronia (equivalent to the English U-
                                                    Perfect)
    have known.1sg the Kosta for ten years

This means that it is not possible to distinguish, just from the form, whether a temporal phrase like *pende chronia* ('five years') is a temporal amount argument (as I argued it is in the *pu*-construction) or an LB-adverbial.

If we take this homophony into account, we can unify the class of temporal pivots that appears in the *na*-construction: they are *all* LB-adverbials[12].

---

11. There is a *epi dheka chronia* ('during ten years'), but it is Eventuality-level only. There is also a *ya dheka chronia* ('for ten years'), which also seems to go with imperfective eventuality only. This is also the adverb that goes with intentions:
   (i) irtha   ya   dheka   meres   ala   emina   ikosi
       came.1sg for   ten   days   but   stayed.1sg twenty
   'I came with the intention of staying ten days but stayed twenty'
12. Here is one more adverbial that can appear in the *na*-construction but not in the *pu*-construction:
   (i) echo   na   ton   dho   edho   ke   dheka chronia   (*na*-construction)
       have.1sg NA   him   see   here   and   ten   years

This, in turn, means that the role of the pivot in the *na*-construction is entirely different from that in the *pu*-construction:

39.

	Event in *pu/since-* or *na*-clause	Temporal amount argument	LB-adverbial
Pu/since- construction	Sets Left Boundary of time span	Specifies size of time span	Not possible
Na-construction	Role as yet unclear	Not possible	Sets Left Boundary of time span

What does all this tell us about the syntax of the two constructions?

In the *pu*-construction, the temporal measure (*five years*) is the first argument in an existential and the *pu*-clause is the LB-adverbial. That is, the representation of a sentence like (40) is that in (41):

40. ine/echi pende chronia pu pethane o thios tu
    is/has   five   years   PU died   the uncle his
    'It has been five years since his uncle died'
41. **light verb**$_{existential}$ [five years]$_a$ [in the time span whose LB is the event of his uncle dying and whose RB is NOW]$_b$

(40/41) are akin to (42/43):

42. There are five liters of water in the balloon
43. **light verb**$_{existential}$ [five liters of water]$_a$ [in the balloon]$_b$

The representation in (41) captures the fact that in the *pu/since*-construction the main assertion is the size of the time span. The boundaries of the time span (and therefore its very existence) are presupposed. (41) also makes clear why only amount arguments can be the temporal pivot of the *pu/since*-construction. On the other hand, according to (39), the *na*-construction is being argued to look as in (44), with [five years] not being the first argument of an existential but an LB adverbial, just like *since*-clauses:
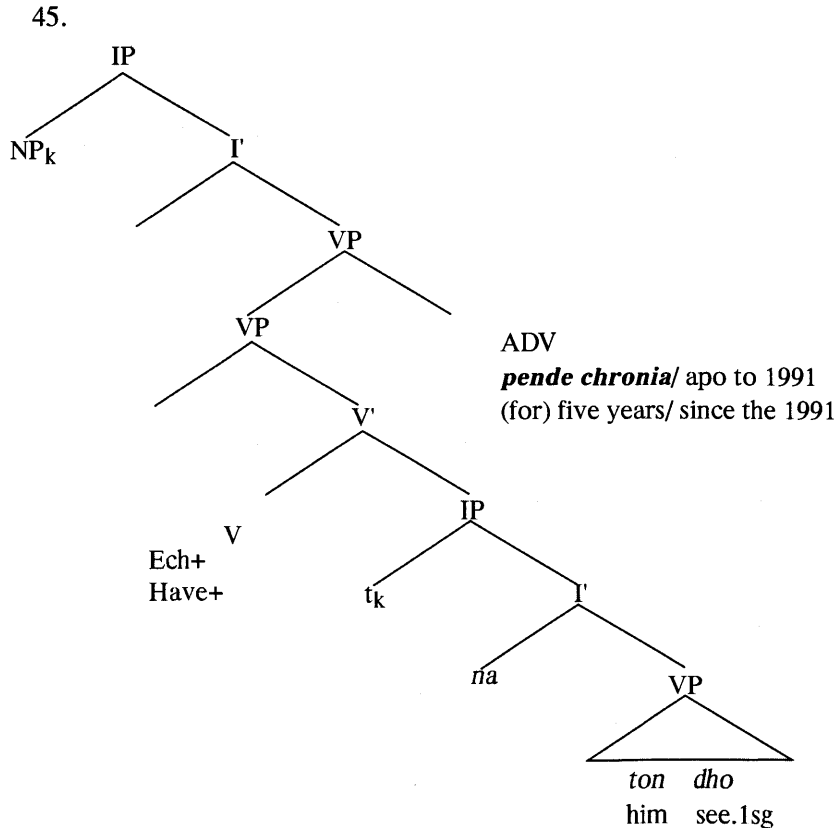

(ii) *echi/ine edho ke dheka chronia pu ton idha   (*pu*-construction)
     has/ is   here and ten   years   PU him saw.1sg
This is also an LB-adverbial (and therefore it is predicted to occur with the *na*-construction but not the *pu*-construction):
(iii) grafi   afto to vivlio edho ke   dheka chronia
      write.3sg this the book   here and ten   years

44. echo   na   ton   dho   [apo   to   1990/ pende   chronia]
    have.1sg NA   him   see   [since the   1990/ five   years]

The difference between (41) and (44) captures the fact that the temporal pivot plays a totally different role in the two constructions. For the *pu/since*-constructions, one can now transfer one's favorite representation of existential sentences. For the *na*-construction, what we have is the following:

45.

```
                IP
              /    \
           NPk      I'
                  /    \
                 /      VP
                /      /   \
              VP      /     \
             /   \   VP      ADV
            /     \  V'      pende chronia/ apo to 1991
           /       \         (for) five years/ since the 1991
          V         IP
        Ech+      /    \
        Have+    tk     I'
                      /    \
                    ńa      VP
                           / \
                          /   \
                        ton   dho
                        him   see.1sg
```

The representation in (45) captures the fact that the temporal pivot in the *na*-construction is always and only an LB-adverbial.

In the *na*-construction, the amount pivot *pende chronia* appears in the Accusative. According to (45), this Accusative is not associated with the matrix verb *have*. This appears correct: Accusative is the Case that all temporal adjuncts appear in. This is supported by the fact that the temporal adjunct appears in the Accusative no matter what the matrix verb is:

46. Perpata ena   chrono
    walks   one   year.Acc
    'He has been walking for one year'
47. Ine arostos   ena   chrono
    Is sick   one   year.Acc
    'He has been sick for one year'

In the *pu*-construction, where the temporal pivot *is* an argument of the matrix (existential) verb, the Case on the temporal pivot is predicted to depend on the verb. Recall that the *pu*-construction has a choice between *be* and *have*. When the verb is *have* the temporal pivot appears in the Accusative, when the verb is *be*, the temporal pivot appears in the Nominative:

48. Echi enan   chrono   pu   ton   idha
    has one   year.Acc PU   him   saw.1sg
49. Ine enas   chronos   pu   ton   idha
    is   one   year.Nom PU   him   saw.1sg

These facts support the position that the temporal pivot is an adjunct in the *na*-construction but an argument in the *pu*-construction. We will return to more aspects of the structure in (45) shortly.

5. First attempt at composing the meaning

Finally we come to the question of how to derive the meaning of the *na*- and *pu*-constructions. I have argued that the possible temporal pivots of the *na*-construction are all LB-adverbials. Specifically, we saw that these include *apo*-adverbials and *(for)-five-years*-adverbials. The latter, as LB-adverbials, are compatible *only* with the Universal Perfect (see Iatridou, Anagnostopoulou and Izvorski 2001 for arguments). Now, recall that in Greek, the meaning of the Universal Perfect is done with the simple (imperfective) tenses. If we combine these facts and look again at representation (44) (repeated below), we see that the *na*-construction looks exactly like other U-"perfects" in Greek:

44. Echo   na   ton   dho [pende chronia/apo   to   1990]
    have.1sg   NA   him   see [five years/ since the   1990]
50. Ksero   ton   Kosta   [pende chronia/apo to   1990]
    know.1sg   the   Kostas   [five   years/ since the 1990]
    'I have known Kosta for five years/since 1990' (the "U-Perfect" in English)
51. Ine arostos [pende   chronia/apo   to   1990]
    is   sick   [five   years/ since the   1990]

'He has been sick for five years/ since 1990'   (the "U-Perfect" in English)

In (50) - (51) it is clear what is going on: the predicates *ksero ton Kosta* and *ine arostos* hold throughout (since it is a U-Perfect) the interval whose LB is five years ago or in 1990 and whose RB is the moment of utterance. Similarly, (44) conveys that the predicate *echo na ton dho* holds throughout an equivalent interval.

The next question, of course, is to determine what *echo na ton dho* means and how it yields the meaning of the *na*-construction. There is a modal construction that has a similar look (see also footnote 4):

52. echo   na   dho   ton   yatro
    have.1sg NA   see   the   doctor
    'I am scheduled to see the doctor'

Since we see the string *echo na ton dho* also in this modal construction, one wonders whether the *na*-construction shares part of its meaning with it. But the meaning of the modal is quite different from what we have in the *na*-construction, which lacks any meaning of obligation or schedule[13]. Furthermore, certain type of subjects cannot appear in (52) for obvious reasons, while they have no problem in the *na*-construction:

53. Echi   na   vreksi pende   vdhomadhes
    has   NA   rains   five   weeks
54. *Echi na   vreksi
    has   NA   rains
    attempted: 'It is scheduled to rain'

I conclude that (52) is not part of the meaning of the *na*-construction. Rather than taking you through everything that *echo na ton dho* does *not* mean in the *na*-construction, let me take you directly to what I think is going on. In order to do this, we will first need to show that the subject of the *na*-construction is derived. In other words, we need to show that there is indeed A-movement of the subject, as depicted in (45).

6. A-movement in the na-construction

In this section I will argue that the matrix subject of the *na*-construction originates inside the lower clause (the *na*-clause) and that (44), in fact, is better represented as (55), already foreshadowed in (45):

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13. For more on the modal construction in (60), see von Fintel and Iatridou (2005).

55. DP$_k$ echo   [t$_k$ na ton dho]   [apo to 1990/ pende chronia]
    DP$_k$ have.1sg [t$_k$ NA him see]   [since the 1990/ five   years]

There are several reasons to suspect this is on the right track. For one, the light verb has the Person and Number features of the embedded subject:

56 a. (emis)   echume   *pende*   *chronia*   na   ton   *dhume*
        (we)   *have.1pl*   five   years   NA   him   see.1pl
   b. (esis)   echete   pende   chronia   na   ton   dhite
       (you.pl) have.2pl   five   years   NA   him   see.2pl

One might counter that the *na*-construction cannot possibly contain Raising since the verb of the *na*-clause has overt agreement features as well. This should not worry us, however. Determining finiteness in the Balkan languages is well known as a difficult issue. There is good reason to believe that even PRO co-exists with agreement on the verb in these languages. It has been argued that the test for "non-finiteness" is not the presence/absence of agreement but the presence/absence of a temporal domain that is independent from the higher clause (Iatridou 1988, Varlokosta 1994, Terzi 1993, and many others; see Philippaki-Warburton & Catsimali 1999 for an opposing view; see Alexiadou and Anagnostopoulou 2000 for an overview of the debate on this issue).

I will assume the following description of the general environment from Iatridou (1988; see also Varlokosta 1994, Terzi 1993, Alexiadou and Anagnostopoulou 2000): if the *na*-clause can be put in the Past Tense, its subject can appear in the Nominative (in addition to the option of pro, Greek being a pro-drop language). If the *na*-clause cannot be put in the Past Tense, the subject cannot appear overtly in the Nominative. It must either remain as PRO or, possibly in some restricted cases, be assigned Accusative through ECM. In addition to this correlation, when the *na*-clause can be put in the Past Tense, its empty category subject can refer outside the clause, hence supporting its status as pro. On the other hand, when the *na*-clause cannot be put in the Past Tense, its empty category subject cannot refer outside the clause, supporting its status as PRO. In short:

57. Possibility for Past Tense[14] in a *na*-clause correlates with

---

14. While accepting the overall proposal of Iatridou (1988), Varlokosta (1994) suggested that the notion of "Past Tense" in (32) should not just include simple past tense, as I had in 1988 but any periphrastic tense that conveys "past," specifically also the Perfect. She suggested this because of examples like (i), which contain Nominative for the embedded subject but which cannot, according to Varlokosta, contain simple past:
   (i) *poli   thelo   na   efije   o   Petros
         much   want.1sg   NA   left   the   Peter

- possibility for Nominative on the subject
- when covert, the subject can refer outside the sentence (i.e., it is pro)
58. Impossibility for Past Tense in a *na*-clause correlates with
    - no possibility for Nominative on the subject
    - when covert, the subject cannot refer outside the sentence (i.e., it is PRO)

From the above, Iatridou (1988) concluded that the source for Nominative in Greek is +Tense and not +AGR, as all *na*-clauses show agreement but only some can provide Nominative for their subject.

Now what about the *na*-clause in the *na*-construction that we are investigating? Can it be put in the Past Tense? The answer is no:

59. Echo   pende chronia na   ton   dho/   *idha/   *echo dhi
    have.1sg fiv   years   NA   him   see.PRS/ *saw.PST/   have   seen

The subject cannot appear in the Nominative:

60. Ego echo   pende chronia (*ego) na   ton   dho
    I   have.1sg five   years   (*I)   na   him   see

The embedded subject cannot be distinct from the matrix subject, indicating that the embedded subject is not *pro*:

61. *Ego echo   pende chronia na   ton   dhi
    I   have.1sg five   years   NA   him   see.3sg

I conclude, therefore, that the *na*-clause of the *na*-construction is as close as Greek has to a non-finite clause and that (as in the context of the aforementioned discussion) the presence of agreement on the embedded verb is not an obstacle in the path to accepting the presence of Raising in the *na*-construction. The reader is referred to Alexiadou and Anagnostopoulou (1999) for tests for Raising in Greek.

A final test that is applicable to the construction at hand and that diagnoses Raising, is the following. It has been observed that there is no PRO expletive (Jaeggli and Safir 1989 and references therein). The grammaticality of the following then indicates that the EC subject of the *na*-clause cannot be PRO but must be an A-trace (the example is chosen to satisfy the semantics and felicity conditions of the *na*-construction):

(ii) poli thelo   na   echi fiji o   Petros
     much want.1sg   NA   has   left the Peter
   'I want him/her to have left'

62. Echi 50 chronia [EC na anakinothi   oti metapsimchothike enas Lama]
    has 50 years   [EC NA be announced that was reincarnated   a   Lama]
    'It has been 50 years since it was announced that a Lama has been reincar-
    nated'

I conclude then that the *na*-construction contains Raising. We can now go back
to composing its meaning.

7. Second attempt at the meaning of the na-construction

Now that we have established the existence of Raising, we can go back to the
represenation in (45):

45.

ADV
pende chronia/ apo to 1991
(for) five years/ since the 1991
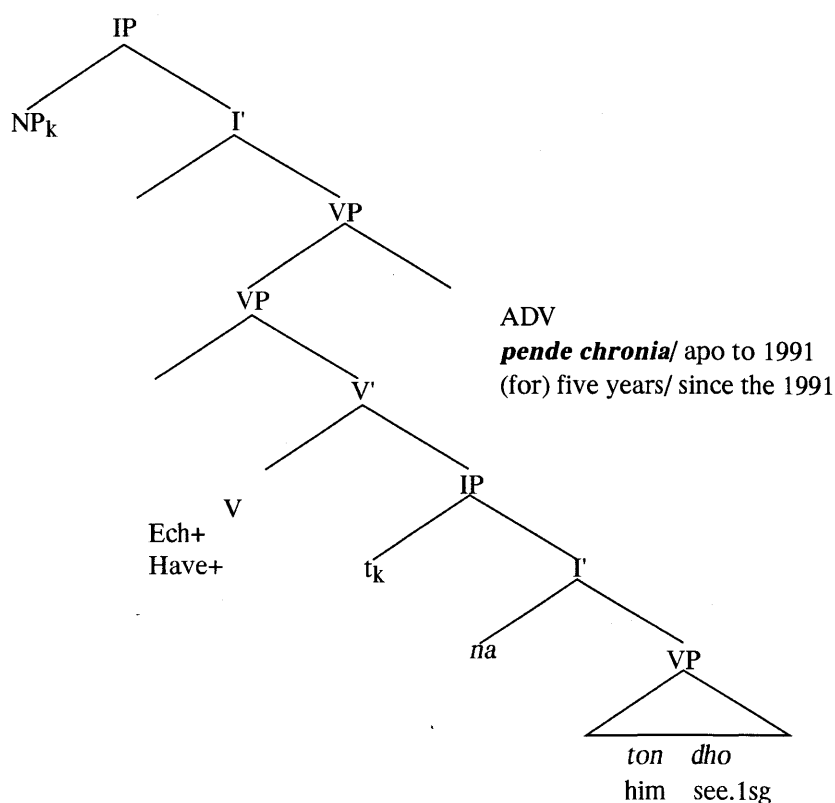
Recall that this is in a sense a U-Perfect in that the matrix predicate is asserted
to hold throughout the time span the LB of which is one of the LB-adverbials and

whose RB is the Time of Utterance (when the *na*-construction is in the present tense). After the discussion about A-movement, we also know that the predicate that is asserted to hold throughout the time span is ***Light Verb [DP na VP]***. The existence of A-movement permits us to recognize the matrix Light Verb as an impersonal verb, i.e. a verb without a thematic subject. Since this verb is HAVE and since the existential verb in Greek is, in fact, HAVE, I argue that the matrix verb in the *na*-construction is an existential verb.

In short, the matrix predicate in the *na*-construction is an existential construction. The fact that the matrix predicate is also a U-Perfect means that the existence is asserted to hold throughout the time span. What is it that the matrix predicate asserts the existence of? I argue that the matrix predicate asserts the existence of a time span between two points. This means that there are two time spans involved in the *na*-construction. On the one hand we have the matrix time span, whose LB is the LB-adverbial, and whose RB is set by Tense. This is the Time Span we are already familiar with; I will be referring to its LB and RB as LBm and RBm, where 'm' stands for 'matrix.' On the other hand, we have the embedded time span, which is the time span the existence of which is the content of the main assertion of the *na*-construction. As all time spans, the embedded time span also has an LB and an RB (LBe and RBe; 'e' for embedded). We will return shortly to what these are. So far, then, we have the following for the meaning of the *na*-construction:

63. Throughout/ for every point in the time span between LBm and RBm there exists a time span between LBe and RBe

RBm is a variable, set by matrix Tense (i.e., it is the Time of Utterance in the Present tense, an interval in the Past, with Past tense etc. (see Iatridou, Anagnostopoulou and Izvorski 2001; von Fintel and Iatridou 2005). LBm is set by the LB-adverbial. What are LBe and RBe? I will argue that LBe is the event description provided by the *na*-clause of the *na*-construction (the one we saw contained a FC event description). RBe is a temporal variable, just like any RB of the time spans we have been looking at. I argue that RBe covaries with time points of the matrix time span, universal quantification over which yields the U-Tense/Perfect reading, so that (63) is effectively (64):

64. For every point in the time span between LBm and RBm there exists a time span between LBe and it.

Consider example (65); what we have said about the *na*-construction is represented in (66) – (69), with (69) being the composite meaning:

65. Echo   na   dho ton Mano pende chronia/ apo to   1990
    have.1sg NA   see the Mano five   years / since the 1990 etc.

66. MatrixTimeSpan:

LBm is set by LB-adverbial (*pende chronia,* 'for five years' or *apo to 1990,* 'since 1990')

RBm is set by Tense

67. ∀t (t ⊂ MatrixTimeSpan → P holds at **t**)

68. P=∃ a Time Span (EmbeddedTime span), between FC any event of the *na*-clause type (LBe) and **t** (RBe)

The na-construction:

69. ∀t (tXMTS → "FC e (na-clause (e) → ∃ Time Span between e and t))

In (69) we can also see the role that the Free-Choice description of the event plays.

Let's say that (70) represents the MatrixTime Span, which is composed by LBm (temporal pivot) and RBm (matrix Tense, Present Tense in the particular example):

70. Matrix Time Span: [................*t*............................]
                                          1990   NOW

What (69) says is that for every *t* in the Matrix Time Span there will be a "non-null distance" (i.e. a time span, specifically, the Embedded Time Span) between *t* and any event of the type of the *na*-clause. In this way, the entire span will be free of events of the type of the *na*-clause. This is how we get an empty time span and a more direct assertion about it than in the *pu*- and *since*-constructions.

How do we get the Matrix Time Span to be empty of events of the relevant type? If there were an event of the relevant sort in the time span, let's say at t':

71. Matrix Time Span: [...................t'..............................]
                                          1990   Event   NOW

then t' would falsify (69) in that there wouldn't be a non-null time span between an event of type e and it (t'). What (69) in effect achieves is that every subinterval of the matrix time span is "free" of events of type e, namely: "t (tXMTS) ~$ *na*(e) at t (where *na*(e) stands for event of the type of the *na*-clause).

In contrast, the meaning of the *pu/since*-construction, on the other hand, is much simpler to derive, so that the meaning of (72) would be as in (73).

72. Ine/echi tria chronia pu pethane i gata tu
    'It has been three years since his cat died'

73. $t [ETS (t,now) & LB(t)= the t [his cat died at t] & $At' [3 years (t') & t'A t]]

8. Conclusion

We have seen that all three of the *pu-* and *na-*constructions place RB, the Utterance Time if the Tense is Present, at a point that is at a distance from the closest event of the relevant sort. But they do this in different ways. The *since-* and *pu-* constructions place the unique (or uniquely relevant) event at LB and thereby convey that there is no other such event in the time span between LB and us.

On the other hand, the *na-*construction makes a direct assertion about the event-emptiness of the time span. It does this by combining a variety of ingredients: a free-choice description of an event, a matrix predicate that is an existential assertion over time spans and that is, moreover, a Universal Perfect.

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Appendix

Tsoulas (1994) argues that *na*-clauses are indefinites (though not in the construction that we have been focusing on). However, even though I am in a way adopting Tsoulas? insight, the arguments that he actually used do not argue for his conclusion.

    Tsoulas notes that in French the Wh-island is much weaker when the embedded clause is infinitival or subjunctive than when it is indicative.

Indicative:
1. *Que te demandes-tu [a qui Suzy a donné]?
  what you you wonder [to who Suzy has given]
2. *Que te demandes-tu [qui a dit qu' Alex a vu]?
  what you you wonder [who said that Alex saw]

Infinitive:
3. A qui te demandes-tu [quoi donner]?
  to whom you you wonder [what to give]
4. Que te demandes-tu [a qui donner]?
  what you you wonder [to who to give]
5. Que te demandes-tu [qui a decide voir]?
  what you you wonder [who decided to see]

Subjunctive:
6. Que te demandes-tu [qui a voulu que Sophie voie]?
  What you you wonder [who wanted that Sophie see.SUBJ]
7. Que te demandes-tu [qui a exigé que Sophie ecrive]?
  what you you wonder [who required that Sophie write.SUBJ]

Tsoulas talks about similar patterns in Greek. Greek has the expected Wh-island effect with indicative clauses but he claims that with na-clauses, the effect is much weaker:

8. Ti .anarotiese [se pion na dosis]?
  what wonder.2sg [to who NA give]
9. Se pion anarotiese [ti na dosis]?
  to whom wonder.2sg [what NA give]
10. Ti anarotithikes [pios apofasise na di]?
  what wonder.2sg [who decided NA see]

Tsoulas reminds the reader of extraction facts out of DPs: extraction out of definites or specific indefinites is much worse than out of indefinites. This has been noted for English, here are Tsoulas' French examples:

11. De	qui	veux-tu	voir	une	photo?	
of	who	you want	see	a/one	photo	
12. De	qui	veux-tu	voir	des	photos?	
of	who	you want	see	some	photos	
13. *De	qui	veux-tu	voir	une	certaine	photo?
of	who	you want	see	a	certain	photo
14. *De	qui	veux-tu	voir	la	photo?	
of	who	you want	see	the	photo	
15. *De	qui	veux-tu	voir	ces	photos?	
of	who	you want	see	these	photos	
16. ??De	qui	veux-tu	voir	la	photo?	
of	who	you want	see	the	photo	

Tsoulas takes the position that the indicative has a definite feature (which can appear on C or on I), whereas the infinitive and subjunctive have an indefinite feature. Hence the extraction out of indicatives is bad but extraction out of subjunctives is good. He does not address why indefiniteness is compatible with extraction while definiteness is not.

One important problem with Tsoulas' account is the following. He talks about a parallelism in extraction, but of course the parallelism, if there is one, is not between definite DPs/indicative clauses on the one hand and indefinite DPs/subjunctive/infinitives on the other. In general, extraction out of indicatives is permitted, whereas extraction out of definite DPs is not permitted. Extraction difficulties with the indicative arise only once we combine indicative with an island-inducing environment like an embedded question. In other words, the definiteness of the indicative is not in itself sufficient to block extraction, an island is necessary. This means that we cannot argue for a parallelism between indicatives and definites based merely on extraction: definites always block extraction, indicatives block extraction only if there is an island.

Tsoulas' second argument is as follows: There are environments where the indicative, as a definite, causes Definiteness Effect violations, whereas the subjunctive and infinitive do not, which argues, according to Tsoulas, that they are indefinites: .

17. Il	faut		que	[Pierre	parte/	*part]
It	is necessary		that	Pierre	leave.SUBJ/	*IND
18. Il	faut		trouver	Sophie		
It	is necessary		to find	Sophie		
19. Il	arrive	que	Sophie	tarde	trop/	*vient vite]
It	happens	that	Sophie	is late.SUBJ	a lot/	comes quickly.IND

Tsoulas does not provide any arguments to the effect that the ungrammatical

expansions of the above sentences are ungrammatical because of Definiteness Effects violations. Moreover, his claim cannot be that indicative clauses cannot be coindexed with expletives as there are plenty that can (though it's unclear to me what Tsoulas' proposal could say about this):

20. Il semble que Marie est malade
    'It seems that Marie is sick'

He discusses only the environments where "...a) [clausal constituents] alternate with DPs and b) the relevant factor governing the distribution of DPs is precisely the Definite vs Indefinite distinction". However, the relevant parallels with DPs he shows are only:

21. Il arrive [plusieurs personnes]
    'There arrived many people'
22. *Il arrive Sophie

First of all, it is far from clear whether the uses of *arriver* in (19) and (21) are alike. As for *falloir* (17) – (18), Tsoulas does not give examples with this verb taking an NP complement. However, *falloir* can take NP complements and there is no problem with these being definite:

23. Il me faut ce/un stylo
    'I need this/one pen'

As for Greek modal verbs that embed *na*-clauses, he gives only one example (*prepi* 'must') but this does not take DP complements so we cannot test the parallel with definite DPs. However, if we look at the modal *chriazome* 'need', which can take either *na*-clauses or NP complements, the parallel is again not supported, as the DP-complement can be definite:

24. chriazete   na   figume/   * oti fevgume/ (tha)   figume
    needs.3sg NA   leave.1pl/ that leave.1pl/ (will) leave.1pl
    'It is necessary for us to leave'
25. chriazome   ena/aftoto   vivlio
    I need.1sg   a/this   the   book
    'I need a/this book'

In other words, we cannot use Tsoulas' second argument for the parallelism under discussion; we only have the parallelism in extraction facts, with the questions that arose earlier.

To summarize: Tsoulas' discussion of subjunctive and indefinites and in partic-

ular Greek *na*-clauses does not support his conclusion that *na*-clauses are indefi-
nites and therefore we cannot rely on it for independent evidence that *na*-clauses
can be indefinite descriptions of events.

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