



The Semantics and Pragmatics of the Modern Greek Perfect.

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0. Abstract

The aim of the present paper is to provide an account for the meaning and functions of the Modern Greek Present Perfect construction by means of exploring its temporal properties and especially the manner in which they are mapped to the set of available interpretations associated with the Perfect from a cross-linguistic perspective. The Modern Greek Perfect allows a more restricted range of interpretations than the ones typically ascribed to the cross-linguistic category “Perfect” –i.e. the resultative and the experiential. In what follows, I will first give a morphological description of the Perfect construction in Modern Greek and the interpretations it gives rise to. I will then discuss a number of influential and competing analyses for the semantics of the Present Perfect, namely, a temporal, Extended Now, approach (Iatridou et al. 2003; Portner 2003, 2011; Giannakidou 2003), a Discourse Representation Theory-based analysis (Kamp & Reyle 1993; de Swart 1998, 2003) and a synthesis of the two types of analyses (Nishiyama 2006; Nishiyama & Koenig 2010), which adequately captures the Modern Greek data, by means of a semantic and a –discourse-oriented –pragmatic component, which makes use of principles of Segmented Discourse Representation Theory (Lascarides & Asher 1993, 2008), upon assigning perfect sentences their interpretation. The analysis of the Modern Greek Perfect offered in the course of this paper rests on the assumptions put forth in these studies, which were tested through a corpus-based study, and were modified accordingly, so as to accommodate the Modern Greek data.

1. Introduction

With this paper, I aim at a descriptive analysis of the meaning and functions of the Modern Greek Present Perfect. In order to do so, I take into consideration two particularly influential and competing frameworks in the analysis of the Perfect as a cross-linguistic aspectual category, namely Discourse Representation Theory (DRT) (Kamp & Reyle 1993; Nishiyama & Koenig 2010; de Swart 1998; 2000) and the Extended Now Theory of the Perfect (XN) (Portner 2003, 2011); Iatridou et al. 2003), and extend them to accommodate facts about the Modern Greek Perfect.

The Perfect is an aspectual category whose more identifiable meaning is the expression of anteriority of an event with respect to some reference time, together with the assertion that this event has some ‘relevance’ from the perspective of that reference time. This, however, is not the only reading associated with the Perfect. Rather, the cross-linguistic category “Perfect” is subject to a high degree of variation in terms of the meanings and functions it is associated with (Ritz 2012). The readings attributed to Perfect

constructions vary among the resultative, the continuative, the experiential and the Perfect of the recent past (Comrie 1976; Iatridou et al. 2003; Nishiyama & Koenig 2010; Portner 2003, 2010; Ritz 2012). Different languages vary with respect to the number and types of meanings they convey through Perfect constructions, and any analysis of the Perfect should be able to correctly predict the readings available in a given language, as well as the contexts they arise in, while at the same time it should block all other perfect-related meanings.

The Modern Greek Perfect Construction is often purported to convey ‘completed action in the past which has relevance in the present’ (Holton et al. 2004). The range of readings it permits is fairly restricted –it only allows the resultative and the experiential interpretations (Giannakidou 2003; Iatridou et al. 2003; Moser & Bella 2003).

The core semantics of the Modern Greek Perfect can be adequately captured by both the theoretical frameworks mentioned so far –namely the Extended Now and DRT. However, assigning a given sentence in the Perfect its full interpretation, is a rather complex process, that involves taking into consideration both contextual and world knowledge information. Hence, under the proposed analysis, perfect sentences are taken to be mapped to their intended interpretations by means of an implicature strengthening mechanism in accordance with Levinson’s (1987) I-Principle. As for the inferencing process that interlocutors undertake upon interpreting perfect sentences, it is assumed to rest on trivial inferences relating to the default properties of eventualities, expectations relating to the sincerity conditions of certain speech acts or elements of the context (Nishiyama 2006; Nishiyama & Koenig 2010).

In what follows, I will offer a description of the Perfect paradigm in Modern Greek, and give a brief outline of its uses (Section 2). I will then move on to discuss the temporal properties of the cross-linguistic category “Perfect” and its ensuing interpretations, from the point of view of proponents working within the Extended Now approach on the one hand, and DRT on the other (Section 3). The frameworks will be evaluated with respect to how well they fare on accommodating Modern Greek data, at which point, I will test the purported stativity of the perfect (Section 4). I will subsequently move on to discuss the pragmatics of the Modern Greek Perfect, focusing on the general pragmatic principles (Section 5), as well as the specific rules (Section 6) involved in the interpretation of perfect sentences. Finally, I will proceed with the summary and conclusions (Section 7).

2. The Modern Greek Perfect: form and associated readings

The investigation of the Modern Greek Perfect construction will be based on its morphological properties (2.1.1) and the readings associated with the latter (2.2).

2.1. Morphological properties

Modern Greek marks the Perfect aspect through a syntactic configuration that comprises of the auxiliary ‘exo’ (HAVE) –marked for tense and subject agreement –and the perfect participle of the lexical verb –exemplified by (1), below.¹ The latter is a non-finite form that bears perfective morphological marking (-s-),² and, as such, can be subsumed under the perfective aspectual paradigm (Giannakidou 2003, 2009; Holton et al 2004; Moser & Bella 2003); it also exhibits a default 3rd singular person agreement. As for the auxiliary, it only appears in the imperfective.³ Table (1) gives an outline of the morphological paradigm of the Modern Greek Present Perfect.

(1) (CS)

O Janis	exi	diavasi	to ‘Anthropi ke pontikia’
The Janis-nom.sg	HAVE-3sg.pres	READ-3sg.non_past.pfcv	the ‘mice and men’
<i>John has read ‘Of Mice and Men’</i>			

¹ The Modern Greek example sentences have been drawn from:

- the **Corpus of Modern Greek (henceforth CMG)**. It is an application implemented by the Corpus linguistics program of the Russian Academy of Sciences (more information can be found here: http://web-corpora.net/GreekCorpus/search/index.php?interface_),
- the **Hellenic National Corpus** (henceforth “HNC”), an application implemented by the “Institute for Language and Speech Processing” (ILSP) (more information can be found here: <http://hnc.ilsp.gr/>)
- the “**Perfect Corpus**”, i.e. a corpus specially compiled for the purposes of this thesis (henceforth PC). It covers a broad spectrum of text types, ranging from crime novels, news reports and op-eds to talk shows, interviews, conversations and documentaries and, as such, it can be said to represent the current state of the language from a synchronic point of view. Section 6.2.1 gives a more detailed description of the material used in the corpus.

Finally, there are a few constructed examples, modelled after sentences used as diagnostics for linguistic phenomena, that are simplified versions of spoken or written data from the internet –mostly found in Greek Wikipedia and CMG – and the PC. These will be referred to as “Constructed Sentences” (henceforth CS).

The origin of each example sentence used throughout this thesis, will be marked next to the example’s number, using the relevant label: CMG, HNC, PC and CS, respectively.

² Represented as [pfcv] in the glosses below.

³ In fact, ‘exo’ (=HAVE) does not combine with the Perfective aspect at all, but rather deploys suppletion from ‘apokto’ (meaning: ‘obtain’, ‘acquire’) in order to refer to bounded events.

exo	djavasi
HAVE-1sg.pres	READ-3sg.non_past.pfcv
I have read	
exis	djavasi
HAVE-2sg.pres	READ-3sg.non_past.pfcv
you have read	
exi	djavasi
HAVE-3sg.pres	READ-3sg.non_past.pfcv
(s)he has read	
exoume	djavasi
HAVE-1sg.pres	READ-3sg.non_past.pfcv
we have read	
exete	djavasi
HAVE-2sg.pres	READ-3sg.non_past.pfcv
you have read	
exoun	djavasi
HAVE-3sg.pres	READ-3sg.non_past.pfcv
they have read	

Table 1: The Modern Greek Present Perfect Paradigm

The Perfect thus is a composite form consisting of an imperfectly marked auxiliary and a perfectly marked participle, that both purport something to the overall meaning of the construction. I shall try to unpack the construction and pin down the semantic contribution of each of its constituents, observing compositionality.

According to Comrie’s (1976) definition, perfectivity –which is contributed by the overt marking on the participial – “indicates the view of a situation as a single whole, without distinction of the various separate phases”. Perfectly marked predicates represent bounded eventualities that exhibit a typical eventive meaning, i.e. they are statements involving existential quantification over events. The events referred to by perfective predicates are interpreted episodically and as included in their location time (Giannakidou 2009). That the participle appears invariably in the perfective, means that it is interpreted unambiguously as an episodic form.

Imperfectivity –manifest in the auxiliary’s aspect marking –on the other hand, amounts to making “explicit reference to the internal structure of a situation, viewing a situation from within” (Comrie 1976). Imperfectly marked predicates typically refer to progressive and ongoing events.⁴ The imperfective, thus, is temporal and stative: it creates an interval during which an eventuality unfolds. As such, the eventuality is represented as overlapping the time interval – i.e. as a state –since no reference to the

⁴ In their non-habitual readings that is. Under a habitual or generic reading, the imperfective expresses a purely temporal generalization.

eventuality's actual or perceived boundaries is included in the temporal representation of the imperfective sentence (Giannakidou 2003, 2009).

While it seems tempting to assign the Modern Greek Perfect a stative component based on the morphological properties of the auxiliary, I do not feel comfortable enough to make such a decision at this early stage, as it would be a binding one with respect to the theoretical framework I would be working in. Furthermore, this decision would not be entirely justifiable without any additional evidence to back it. In section (4.3), however, I will return to the stativity of the perfect, in order to do it justice.

After having gone through the aspectual properties of the constituents making up the Modern Greek Perfect construction, we will take a brief look at the way the perfect operator interacts with tense. Perfect forms can inflect for tense, giving rise to (2) Pluperfect tense forms (HAVE-past.[PERS] V-3sg.non-past.pfcv) as well as to (3) Future Perfect ones (FUT HAVE.pres.[PERS] V-3sg.non-past.pfcv). The latter are consistent with a modal interpretation, but seeing as modality lies outside the scope of the paper, there will be no further mention of it.

(2) (CS)

Ixa		pai		stin	Kriti
HAVE-1.sg.past		go-3.sg.non-past.pfcv		to.the	Crete
otan	pantrefitike		i	María	
when	marry-3.sg.NACT.past.pfcv		the	María-nom	

I had gone to Crete when María got married

(3) (CS)

Θa	exo		figi		
FUT	HAVE-1.sg.past		leave-3.sg.non-past.pfcv		
prin	epistrepsis		apo ti	doulia	
before	return-2.sg.non-pres.pfcv		from the	work	

I will have left before you get back from work.

2.2. Readings associated with the Modern Greek Perfect

In this section, I will offer a brief outline of the set of readings available to the Modern Greek Perfect. Any analysis of the Present Perfect should capture its duality with respect to its temporal properties, focusing on the fact that it seems to express anteriority, while

at the same time it maintains a strong connection to the present.⁵ This connection has often been represented as a state that (immediately) follows and results from a prior eventuality,⁶ and also holds at the moment of speech, as in (4) below –according to which the event of the speaker ‘hanging a swiss penknife on her keyring’ precedes the current state of the ‘swiss penknife hanging on her keyring’.

(4) (PC)

Exo	anartisi	enan	elvetiko	sougia	
HAVE-1sg.pres	attach-3sg.non_past.pfcv	a	swiss	penknife	
stin	klidothiki	mou	(* ala den ine	pja	eki)
on.the	keyring	POSS.1sg.gen	(* but NEG BE-3sg.pres	any.more	there)

I have hung a swiss penknife on my keyring (but it's no longer there)*

However, the result state is not the only reading associated with the Perfect. Rather, it is favored by the telic nature of the eventuality denoted by the predicate in the scope of the perfect operator. The idea is that, once modified by the perfect operator, telic predicates make reference to a culminated event, as well as its ensuing state. The latter is asserted to hold at the reference time, which—in the case of the Present Perfect –is equated to the speech time (Kamp & Reyle 1993; Portner 2003 & 2011; Iatridou et al. 2003; Nishiyama & Koenig 2010; Dahl 1985; Dahl & Hedin 2000). In example sentence (4) above, that the state of ‘the swiss penknife hanging from the speaker’s keyring’ holds at the moment of speech is evident by the infelicity of the continuation “but it’s not there anymore”, as the sentence seems to assert that a swiss penknife is both hanging and not hanging on the speaker’s keyring.

On the other hand, predicates that do not refer to inherently telic events –such as statives and activities –can give rise to a different interpretation in the Present Perfect.

⁵ This observation holds for the Present Perfect and not Past or Future Perfect forms. For the sake of brevity, in what follows, I will use the term Perfect exclusively for the Present Perfect, and make explicit reference to tense operators other than the Present, when they scope over the perfect aspect operator.

⁶ The relation between the perfect state and the preceding event can be considered a purely temporal (f.i. Kamp & Reyle 1993) one, or one involving causality (f.i. Portner 2003; 2011). In the former case additional assumptions need to be made, in order to prevent the perfect state from being completely unrelated to the prior event, whereas if the relation is taken to be of cause and effect, one has to make sure that instances of reverse causality and non-entailed states can also be subsumed under the general schema.

(5) (PC)

Anigoklino tin palami,
Open.close-1sg.pres the palm,
opos mou exi ipodiksi o fisikotherapeftis.
how-REL DO.CL.1sg HAVE-3sg.pres show-3sg.non_past.pfcv the physiotherapist.

I repeatedly stretch my palm, as I have been instructed by my physiotherapist.

The sentence refers to an episode of the speaker’s physiotherapist showing her an exercise to relieve her backpain. The episode lies entirely in the past with respect to the utterance time and it is properly included in a time interval that extends from some unspecified point in time, up to now –but not actually including the moment of speech. That this is not an instance of a “result state” reading –at least not in the prototypical sense –can be demonstrated by the fact that prior event does not entail the coming into existence of a certain result state. In fact, given that the predicate denotes an event with a perceived endpoint, rather than a natural one, it cannot “culminate”, but rather “come to an end”.

This is the existential reading of the Present Perfect. It involves existential quantification over time intervals, hence the name. Even though atelic predicates favor it, this reading is available with all sorts of predicates –including telic ones –insofar as the perfect sentences which they appear in, make reference to events that have occurred at least once in a given time interval starting in the past and extending up to the present (Ritz 2012; Kiparsky 2002). Rather than introducing an event as a new discourse referent, existential, non-resultative, perfects seem to assert that a certain event-type is instantiated during a period of time (Dahl & Hedin 2000).

Some of the factors contributing to an existential reading, include the presence of iterative adverbials in the sentence, the cardinality of the sets denoted by a predicate’s arguments and the presence of negation, to name but a few.

Starting at the top of the list, applying iterative adverbials to the sentence tends to repress any reference to the individual events’ result states as a rule,⁷ thus typically giving rise to existential readings (Nishiyama & Koenig 2010; Giannakidou 2003). Example sentence (6), for instance, does not assert that a certain state that came into existence as a result of a prior event’s culmination, holds true at the moment of speech. In fact, the sentence does not support the notion of culmination altogether:

⁷ When it comes to telic predicates as well as some statives that typically give rise to inchoative interpretations.

(6) (PC)

Exi tixi para poles fores
HAVE-3sg.pres happen-3sg.non_past.pfcv great many times,
na min boro na sinenoitho
SJNC NEG be.able-1sg.pres SJNC come.to.an.understanding-1sg.non_past.pfcv
me tous epagelmaties psarades.
with the professional fishermen
Not being able to come to an understanding with professional fishermen is something that has happened to me time and again.

As for predicates containing plural subjects (7) or plural affected objects (8), they, too, favor a multiple event interpretation, under a distributive reading, simulating the effect of iterative adverbials on eventive predicates (de Swart & Verkuyl 1999; Verkuyl 1999).

(7) (PC)

Para poli exoun anadixti stin politiki igesia
great many HAVE-3pl.pres rise-3sg.non_past.pfcv to.the political power
aftou tou topou, xrisimopiontas athemita mesa.
of.this the place, by.make.use.of-gerund illicit means
Great many people have risen to political power, by making use of illicit means.

(8) (PC)

Kanis den exi anadiksi
No.one NEG HAVE-3sg.pres point.out-3sg.non_past.pfcv
ta 100 kala pou mou exi pi
the 100 good.things that IO.CL-1sg HAVE-3sg.pres tell-3sg.non_past.pfcv
No one has pointed out the 100 compliments he has paid me.

Finally, negation seems to block resultative readings in favor of existential ones, seeing as it negates the existence of an event altogether, let alone a state resulting from its culmination (9). Assuming that there is a state purported by the sentence below, it is a negatively defined one (Dowty 1986), indicating the absence of an event of the type denoted by the eventuality description in the scope of the perfect operator. That this reading is not classified as a continuative, has to do with a process of pragmatic strengthening that affects the interpretation of negated perfects (Nishiyama & Koenig 2010), to which we will return in section (5).

(9) (PC)

Pote den exete kani ipoxorisi
Never NEG HAVE-2pl.pres make-3sg.non_past.pfcv concession
stis apetisis tou laou
to.the demands of.the people

You haven't made any concessions to the people's demands, ever.

Existential perfect readings are also very typical of sentences expressing reverse causality. Assuming that there is an ongoing state at the moment of speech, that somehow relates to the event referred to in the perfect sentence, then this relation cannot be defined in terms of the said event logically and/or temporally preceding this state, but rather the state being a possible cause for the occurrence of the prior event (Nishiyama & Koenig 2010; Ritz 2012).

In (10) for instance, that the panelist referred to doesn't care if his colleagues feel the manner he addresses them on camera to be inappropriate (even borderline sexist), is not a result of him having, time and again, paid the speaker compliments, on air, but rather the cause of that.

(10) (PC)

He doesn't think it inappropriate to say things like that on camera.

Ji'afto mou exi kani 100.000 fores komplimenta
For.this IO.CL.1sg HAVE-3sg.pres make-3sg.non_past.pfcv 100.000 times compliments

He doesn't think it inappropriate to say things like that on camera. Which is why he has paid me so many compliments.

Another reading –although somewhat marginal –of the Modern Greek Perfect is that of expressing an event that took place in recent past –dubbed the “Hot news perfect”. When the distance between the past event and the time of speech is perceived as minimal, then the event can be referred to by a sentence in the Present Perfect (11), (Comrie 1976).

(11) (PC)

Prospioume pos molis exo vgi
Pretend-1sg.pres that just HAVE-1sg.pres walk.out-3sg.non_past.pfcv
apo to grafio tou dikigorou,
from the office of.the lawyer

I pretend to have just walked out of the lawyer's office [lit. that I have just walked out...]

However, in most contexts where an event is perceived as having occurred “just before” the time of speech, Modern Greek typically opts for a sentence in the Perfective Past,

rather than the Present Perfect (Moser & Bella 2003), as (12) illustrates. That the eventuality happened only recently, is purported by the adverbial ‘molis’ (=just), which signifies that the distance between the event and its reference time is perceived as minimal –i.e. non-existent –thus befitting the temporal relations of the Simple Past (E,R<S) rather the ones expressed by the Present Perfect (E< R,S) (Smith 1997; de Swart 2007).

(12) (CS)

Molis	bika	*exo	bi
Just	enter-1sg.past.pfcv	*HAVE-1sg.pres	enter-3.sg.non-past.pfcv
sto	spiti.	<i>(...Can I get back to you in 10 min?)</i>	
in.the	house	<i>I have just got home (... can I get back to you in 10 min?)</i>	

It seems that the Present Perfect sentences designating events that lie “just before” the reference time are only felicitous in narratives where the “historical present”, i.e. a particular function of the present tense as a means to refer to past episodes, is in use – recall example sentence (11), above. The present tense seems to create the illusion that what is described is, as if it were unfolding in front of the hearer’s eyes. Since the Present Perfect evokes anteriority while still maintaining a strong connection to the reference time, it works well in that context (Kamp & Reyle 1993). This account is consistent with Ritz’s (2007) claim, that the Australian English Present Perfect construction can be used in narratives, where it signals a retrospective look in the situation and provides a post-time in which other events can be placed.

For instance, sentence (12) above would be rescued, had it been part of a larger narrative that aimed at describing the narrator’s actions as if they were ongoing at the time of speech: “I have just got home, and there he is, in my bedroom, going through my drawers”. Furthermore, the status of the “hot news” perfect as an independent reading is debated, being treated as a sub-case of the existential reading (Nishiyama & Koenig 2010) or of the resultative one (Kiparsky 2002; Michaelis 1998). That Modern Greek permits this reading in so few contexts, can serve as indirect evidence in favor of its treatment as a resultative perfect, along the lines of Michaelis (1998); namely, the salient present consequences of an event is what induces the speaker to report it in the first place. And given the ephemeral nature of certain resultant states, the felicitous use of a form implicating the presence of a contingent result hinges on the event denoted in the sentence being recent. Consider (13):

(13) (PC)

O Varitis ine ftiagmenos ke den ponai tora.
The Varitis-nom.sg BE-3sg.pres high and NEG hurt-3sg.pres now.
Exi molis pari
HAVE-3sg.pres just take-3sg.non_past.pfcv
ena cocktail kokainis, iroinis ke ketaminis.
a cocktail of.cocaine, of.heroin and of.ketamine

Varitis is high and no longer feels pain. He has just taken a cocktail of cocaine, heroin and ketamine

That the Modern Greek perfect participle can be classified as a subcategory of the perfective aspect, comes with certain theoretical implications. Given that the contribution of the perfective aspect is to focus the inherent endpoints of an eventuality –for telic predicates –or to externally bound otherwise homogeneous eventualities (de Swart 1998; Smith 1997²), it follows that the perfectly marked, Modern Greek Perfect forms, refer to events that lie entirely in the past with respect to the reference time. In that sense, we do not expect to find instances of “Continuative perfect” uses –i.e. sentences in the Present Perfect referring to a state that began prior to the time of speech and are perceived as ongoing at the time of speech –in Modern Greek. The latter interpretation, which is very frequent in English, only becomes available as long as the eventuality description in the scope of the perfect operator is stative/unbounded (Portner 2003, 2011; Iatridou et al. 2003)⁸. As we have already seen, none of these requirements hold for Modern Greek.

In fact, it seems that this interpretation is not very widespread in from a cross-linguistic point of view. Many languages –Modern Greek among them –will rather opt for present, non-perfect verb forms to indicate that an eventuality carries on at the point of speech, and use the Present Perfect instead to report on past eventualities that are somehow relevant from the point of view of the time of speech (de Swart 1998, 2000; Ritz 2012). This is shown in the contrast between sentences (14.a) and (14.b) below. The (#) in (14.a) is not an indication of ungrammaticality, but rather shows that the sentence cannot receive the intended (continuative) interpretation.

⁸ In treating the perfect as an aspectual operator on events, yielding states (Kamp & Reyle 1993; de Swart 1998; 2000), DRT-approaches essentially treat all perfects as resultatives.

(14) The eventuality continues at the moment of speech (Modern Greek):

(a) Present Perfect (CS)

#I Maria exi zisi
#The Maria-nom.sg HAVE-3sg.pres live-3sg.non-past.pfcv
sto Parisi **gia ena xrono**
in.the Paris for one year

Maria has lived in Paris for one year at some time in the past.

(b) Simple Present (CS)

I Maria zi sto Parisi **gia ena xrono**
The Maria-nom.sg live-3sg.pres in.the Paris for one year

Maria has been living in Paris for a year now

Despite the fact that the Modern Greek Perfect only permits a proper subset of the readings associated with the cross-linguistic category “Perfect”, providing a unified semantics for it is no less of a challenge compared to perfects exhibiting a wider array of readings. Especially, since every attempt at a semantic representation of a grammatical category must aim at some cross-linguistic validation. Thus, semantic representations of the perfect should be able to derive all the readings attributed to the cross-linguistic category on the one hand, and on the other they should predict that a given language will exhibit all –and only those –readings attested in that language. In that sense, insofar as the continuative reading is represented in the languages of the world, it should be predicted by the semantics of the perfect. Of course, as we have already seen, Modern Greek does not employ the perfect to refer to the continuation of a state at the time of speech, hence, the proposed analysis should block the continuative reading for this language on independent grounds –which it does.

There are many approaches to the way the readings associated with the cross-linguistic category of the Perfect can be distinguished from one another. The number of distinctions represented in the semantics of the perfect –the number of broader groups its readings can be subsumed under, that is –define the general perspectives one can assume in treating perfect.

One can distinguish two general readings of the Present Perfect –the existential and the continuative/universal –based on the temporal properties of the eventualities in the scope of the perfect: in the former group, the eventuality is understood to precede the time of speech, whereas in the latter, parts of the eventuality are understood as preceding the time of speech. Under this type of analysis, the perfect only contributes a time interval in the discourse and the meaning of the perfect sentences is determined by the temporal

relation of the said interval with the eventualities denoted in the perfect sentence. The type of the temporal relation can be either inclusion –for existential readings –or overlap –for continuative/universal ones. The non-temporal readings are accessed by appealing to discourse related presuppositions –namely as signaling that the proposition denoted in the perfect sentence maintains a strong connection to a mutually agreed on discourse topic (Portner 2003).

Alternatively, one can distinguish among three general readings –namely result state, existential and continuative –based on the type of state that is assumed to hold at the reference time (i.e. at the time of speech): a state that temporally abuts the prior event and is entailed or inferred by it, no state at all,⁹ or the continuation of a state that began in the past, at the time of speech, respectively (Kamp & Reyle 1993; Michaelis 1998; De Swart 1998; 2000).

Last, one can take an intermediate approach and postulate that the perfect has a unified semantics, introducing an event and a state variable in the discourse –the relevant readings being derived through pragmatic inferences, taking into account semantic/compositional as well as contextual information (Depraetere 1998; Nishiyama 2006; Nishiyama & Koenig 2010).¹⁰

Finally, the semantics postulated for the perfect should distinguish it from other past referring tense-aspect grammatical operators –such as the Simple Past and even the Past Perfect –as well as offer an account for some “puzzles” associated with it –as is its incompatibility with [+definite] past referring adverbials and the requirements it poses on the denotata the perfect sentence’s subjects –dubbed “lifetime effects”.

⁹ Or rather, a state temporally defined to abut the event and unfold at the time of speech, but with no further specification (Kamp & Reyle 1993). Their treatment of existential perfects on a par with resultatives, suggests that a possible candidate for the state’s interpretation is the inference that “the state or activity referred to by the eventuality description in the scope of the perfect, is no longer unfolding”.

¹⁰ This way the analysis maintains the stativity that is often associated with the perfect in DRT-driven approaches, while at the same time it takes into account the temporal properties of the eventuality descriptions in the interpretation of the perfect sentence, on a par with XN-theories.

3. The meaning of the Perfect: temporal semantics.

3.1. The Extended Now approach

The Present Perfect is generally considered as encoding some sort of anteriority, which necessitates that its semantics distinguish it from other past referring tense-aspect forms, such as the Simple Past –which for Modern Greek is an amalgam form, encoding perfectivity and past time reference. The differentiation lies at the link with the present – which is absent in the case of the Simple Past. That the Present Perfect is to be distinguished on semantic grounds from the Simple Past manifests in the incompatibility of the former with adverbials expressing definite past time reference (15.a). The Simple Past sentence (15.b) on the other hand is perfectly fine with the addition of the adverbial “xthes” (= yesterday).

(15) Incompatibility with adverbials expressing past time reference

a) (CS)

O Janis	exi	erthi	(*xthes)
The Janis-nom.sg	HAVE-3sg.pres	arrive-3sg.non_past.pfcv	(*yesterday).

Janis has arrived (***yesterday**)

b) (CS)

O Janis	irthe	xthes.
The Janis-nom.sg	arrive-3sg.past.pfcv	yesterday

John arrived yesterday

Further evidence that the two tense-aspect forms should be distinguished from one another in terms of their semantic representations comes from the properties of their subjects. Since Present Perfect sentences are actually predications about the world as it is ‘now’ (i.e. at the moment of speech) they entail that the denotation of their subject must not be the empty set. The latter pattern –known as “Lifetime effect” –can be summarized in the requirement that the subject’s referent be alive at the moment of speech in Present Perfect sentences and that the eventualities they refer to be repeatable in the future (Dahl 1985; Dahl & Hedin 1994; Iatridou et al. 2003; Portner 2003; Smith 1997²). Sentence (16) illustrates the case in point; whereas the Present Perfect sentence is ungrammatical if uttered at a time after Carathéodory’s demise (a), the Simple Past sentence is perfectly acceptable in that context. Put differently, the Present Perfect is taken to involve type-focusing, whereas Simple Past tense form is taken to involve token-focusing instead (Dahl & Hedin 2000).

(16) Lifetime effects

a) (CS)

* O Carathéodory exi djoristi

* The Carathéodory HAVE-3sg.pres appoint-3sg.NACT.non_past.pfcv

kathigitis mathimatikon sto Panepistimio tou Göttingen.

professor of.mathematics at.the University of.the Göttingen

* *Carathéodory has been appointed Professor of Mathematics at the University of Göttingen.*

b) (CS)

O Carathéodory djoristike

The Carathéodory appoint-3sg.NACT.past.pfcv

kathigitis mathimatikon sto Panepistimio tou Göttingen.

professor of.mathematics at.the University of.the Göttingen

Carathéodory was appointed Professor of Mathematics at the University of Göttingen.

The constraints against modification by definite past time reference adverbials and the non-referring subjects only apply in the case of the Present Perfect. Past and, tenseless, gerund perfect sentences on the other hand are exempt from both, as demonstrated by example sentences (17) and (18).

(17) Definite past time reference

a) (CS)

Xtes pliroforithika

Yesterday inform-1sg.NACT.past.pfcv

oti o Janis ixerthi .

that the Janis-nom.sg HAVE-3sg.past.ipfcv arrive-3sg.non_past.pfcv

apo tin proigoumeni mera

from the before day

Yesterday I learned that Janis had arrived the day before

b) (CS)

Exontas erthi apo tin proigoumeni mera,

HAVE-gerund arrive-3sg.non_past.pfcv from the before day

o Janis ine ksekourastos ke etimos gia ton avriano agona.

the Janis-nom.sg BE-well.rested and ready for the of.tomorrow game

Having arrived the day before, John is well rested and prepared for the game tomorrow

(18) No constraint on the denotation of the subject.

a) (CS)

Xtes pliroforithika
Yesterday inform-1sg.NACT.past.pfcv
oti o Carathéodory ixē djoristi .
that the Carathéodory-nom.sg HAVE-3sg.past.ipfcv appoint-3sg.NACT.non_past.pfcv
kathigitis mathimatikon sto Panepistimio tou Göttingen.
professor of.mathematics at.the University of.the Göttingen

Yesterday, I learned that Carathéodory had been appointed Professor of Mathematics at the University of Göttingen.

b) (CS)

Exontas djoristi kathigitis mathimatikon
HAVE-gerund appoint -3sg.non_past.pfcv professor of.mathematics
sto Panepistimio tou Göttingen, didakse eki mexri to 1918.
at.the University of.the Göttingen, teach-3sg.past.pfcv there until the 1918.

Having been appointed Professor of Mathematics at Göttingen, Carathéodory taught there until 1918.

In that sense, it seems that the ungrammaticality of (15.a) and (16.a) should be attributed to their Present tense marking, which ensures that the past events they report are to be interpreted from the point of view of the utterance time.

That the Perfect can refer to past events from the reference time's perspective, is not tantamount to saying that it encodes anteriority. What all of the example sentences presented in the course of this section have in common, is that they contain perfectly marked, perfect participles. As we have already seen, the latter are taken to unambiguously denote episodic events, which causes them to be interpreted as included in their location times –i.e. they are not consistent with a stative interpretation. On the other hand, we have seen that the cross-linguistic category Perfect permits continuative readings as well, for which the state denoted by the underlying predicate is asserted to hold at the speech time. It seems plausible then to postulate that the anteriority can only be related to existential, i.e. non-continuative, perfects (**Iatridou et al. 2003**; Portner 2003, 2011).

Instead of positing that the Perfect encodes anteriority of the event with respect to the reference and the speech time, it is possible to reduce anteriority to an inference, triggered by the temporal properties of the eventuality descriptions in the scope of the

perfect and the semantics of the perfect itself. The idea is that the perfect introduces a time interval, the beginning of which precedes the reference time while its end overlaps it. Eventualities are mapped onto this time interval. In case of the Present Perfect, that time interval is understood as expressing an extended now period (XN), beginning at a time *t*, such that *t* precedes the moment of speech and extends up to –and includes –the latter (Iatridou et al. 2003; Portner 2003, 2011). The subclassification of existential perfects lies by and large outside the scope of XN-approaches,¹¹ in the sense that it isn't accounted for by the temporal semantics of the perfect (Giannakidou 2003; Portner 2003, 2011), but rather by an independent pragmatic component.

Whether a predicate in the scope of the Present Perfect will be interpreted as denoting an eventuality that began in the past and continues at the time of speech, or as an eventuality that completely lies in the past and has some relevance from the perspective of the present, is dependent on the its aspectual characterization; non-stative eventuality descriptions are included in the XN-interval and give rise to the existential reading, whereas stative ones overlap it and give rise to the universal/continuative one (Portner 2003, 2011).¹²

Iatridou et al. (2003) opt for a similar analysis, resorting to the notion of boundedness in order to account for existential vs. universal readings. Stative predicates can be interpreted as \pm [bounded], irrespective of their morpho-syntactic marking. Boundedness however is taken to be the default value of non-progressively marked, non-stative eventuality descriptions. [+bounded] dynamic predicates emphasize on the termination point of the eventualities they denote –be that actual or perceived.¹³

What the XN-approaches have in common, is that they rely on the aspectual properties of the eventuality descriptions in the scope of the perfect in order to determine the set of the possible relations these can be in, with respect to the XN-interval –contributed by the perfect operator. Stative eventuality descriptions will overlap the XN-interval, whereas eventive ones will be properly included in it,¹⁴ hence the inference of anteriority.

Incompatibility of the Present Perfect with past time reference adverbials (15.a) is thus accounted for in terms of a clash of the adverbial with the temporal properties of a Present

¹¹ But to the extent that there is a result state available, it is construed as the effect of the eventuality in the scope of the Perfect operator. That is, the relation between the prior event and the result state is treated as a “cause & effect” one.

¹² Inherently stative eventuality descriptions giving rise to bounded, eventive interpretations in the appropriate context will be treated on a par with inherently eventive predicates.

¹³ A positive value for the morpho-syntactic feature [Progressive] indicates that the dynamic eventuality is presented as homogeneous –i.e. unbounded.

¹⁴ To count as a valid instance of the type of event denoted by a predicate, any given event must have reached its final endpoint.

tense sentence. In a similar vein, that lifetime effects are only observable with the Present Perfect follows from the informational structure of the sentence (16.a) above –a statement about Carathéodory –as well as from the contribution of both Perfect and Present operators –which taken together cause the sentence to be valuated from the point of view of ‘the present’. Since Carathéodory is no longer alive, a statement about him in the Present tense can’t be felicitous.

This, however, does not amount to a complete ban of the Perfect in sentences, the subject of which lacks a referent:

(19) (CS)
 Exi xionisi poli fetos ton ximona
 HAVE-3sg.pres snow-3sg.non_past.pfcv much this.year the winter
 It has snowed a lot this winter.

(20) (CS)
 O Mitsotakis exi pi to amimito:
 The Mitsotakis-nom.sg HAVE-3sg.pres say-3sg.non_past.pfcv the one.of.a.kind:
 “Kanis den tha to thimate se 10 xronia”
 “No.one-nom.sg NEG FUT DO.CL.3sg remember.3sg.pres in 10 years.
Mitsotakis has put this into words, most eloquently: “No one will remember any of this in 10 years from now”.

(21) (CS)
 O Ritsos, o Koundouros, o Theodorakis
 [The Ritsos, the Koundouros, the Theodorakis]-nom.sg
 ke poli ali ekprosopi tis aristeras
 and [many other representative]-nom.pl of.the left.wing
 exoun eksoristi sti Makroniso
 HAVE-3pl.pres exile-3sg.NACT.non_past.pfcv at.the Makronisos
Ritsos, Koundouros, Theodorakis have all been exiled at Makronisos, ... as have many other left-wing supporters.

Rather than predicating something of an individual or a set of individuals, the sentences above represent predications about the world instead. (19) involves a weather verb, and as such, doesn’t refer to any individual in particular; (20) probably serves as an evidential –reportative verbs in the Perfect trigger the inference that the material they scope over is nonmonotonically true and is therefore assumed to hold at the reference time (Nishiyama & Koenig 2010); and (21) evokes information about the set of the Left-wing supporters that have faced exile at Makronisos during the 40’s and the 50’s, and, as such, the demise

of Ritsos or Koundouros does not block the use of the Perfect in that context, so long as the denotation of the subject is not the empty set (Portner 2003).¹⁵

3.2. The stative analysis

For DRT-driven theories on the other hand, the perfect obligatorily encodes anteriority of an event with respect to its reference time. The precedence relation between the event and the reference time is not a direct but an inferred one. Treating all perfects as contributing a stative component into the discourse, such that it temporally abuts the prior event ($e \supset \subset s$) and overlaps the reference time ($s \circ t$), invites the inference that the events referred to by perfect sentences actually precede their reference times.

That the theory opts for a –more or less –uniform analysis of the Perfect, does not mean that it fails to capture the polysemy of the construction. It rather means that it makes use of essentially the same tools to provide a temporal representation that can accommodate all the possible interpretations of the perfect.

3.2.1. The result state analysis

Kamp & Reyle (1993) postulate that when the perfect operator scopes over a non-stative eventuality description, then that eventuality description is taken to refer to the prior event. The state is either entailed by the event's culmination or is defined negatively –i.e. the aforesaid eventuality is no longer unfolding. The latter kind of resultant state is typically reserved for predicates denoting states that lie entirely in the past and are interpreted as events, in which case it corresponds to the existential reading of the perfect.¹⁶

That stative predicates are represented as events that have come to a termination, is achieved by means of the condition [$e = \text{end}(s')$], indicating that the prior event is associated with the end of the given state. In that sense, the prior event consists both of the state denoted by the predicate, plus its termination. Conversely, the continuative interpretation is achieved when the prior event is associated with the beginning of an underlying state [$e = \text{beg}(s')$]. The latter –namely (s'), which is expressed by a stative

¹⁵ Of course, given that Makronisos stopped functioning as a place of exile in 1958 –and also given the unlikelihood of reassuming this function in the foreseeable future –this sentence is bound to sound less felicitous over time, as more of the former inmates pass away. But for the time being, it is perfectly acceptable.

¹⁶ Despite the fact that activity denoting predicates also lack an inherent endpoint, they are represented as externally bounded or as referring to events that have previously been introduced in the discourse: “In other words, an activity verb such as walk is not able to introduce a new event into the discourse, but it can be used to redescribe the event, once it has been introduced by independent means” (Kamp & Reyle 1993, 563-4).

predicate¹⁷ –is coterminous with the result state (s), whence the inference that the two states are actually one and the same ($s' = s$).

De Swart (1998, 2000), in what is essentially a DRT analysis of aspectual operators, treats grammatical aspect as a mapping relation from one domain of eventualities to another. The Perfect is taken to be such an operator that maps quantized events onto their consequent states. As such, it readily combines with telic sentences and focuses on the state that they entail, all in accordance with Kamp & Reyle (1993). But it also combines with homogeneous base eventuality descriptions, both dynamic and stative, contra the assumed input requirement. The clash between the input requirement of the perfect and a homogeneous, i.e. stative, eventuality description is resolved by imposing external boundaries on the latter; either by an overt eventuality description modifier –of the sort of “for x time”–or by a covert coercion operator. In any case, the output of the aspectual operators prior to the application of the perfect is eventive.¹⁸ Both the standard DRT and de Swart’s (1998, 2000) approach can be directly applied to Modern Greek, where the combined effect of the inner aspectual character of the predicate and the perfective operator ensure that the perfect’s input requirements are always met.

So far, we have seen that the perfect can be analyzed as if it were contributing a stative component in the discourse. This stative component has been treated as the output of applying the perfect operator on previously bounded eventuality descriptions and it is defined temporally as (i) abutting the bounded eventuality and (ii) overlapping the reference time –the latter is to be determined by the sentence’s tense (Kamp & Reyle 1993; de Swart 1998, 2000).

It seems, however, that this particular analysis is in need of modification, in order to accommodate data like (19) through (21), above, in which the relation between the event and the state contributed by the perfect cannot be one of temporal precedence, albeit its nature is not all too clear.

A solution to this problem may come from an account that maintains both the requirement for the anteriority of the event with respect to the reference time, and the stative nature of the perfect, while at the same time it poses no requirement on the temporal relation between the event and the state, resembling in this respect purely temporal approaches to the meaning of the perfect (Nishiyama 2006; Nishiyama & Koenig 2010). Moreover, instead of assigning different semantic characterizations to the stative

¹⁷ I am not concerned with discussing the differences between inherently stative predicates and predicates in the scope of the progressive operator at this point, as it does not make a difference for the Greek data.

¹⁸ The derivation of the DRSs follow standard DRT practices mentioned above in every other respect.

component, Nishiyama's (2006) and Nishiyama & Koenig's (2010) account leave the perfect state semantically underspecified, while at the same time they simulate the reasoning process that interlocutors resort to, in order to fully interpret sentences containing perfects. Thus, these analyses comprise of a semantic and a pragmatic component. The semantic component is reviewed in the following section, whereas the pragmatic component will be discussed in Section (5).

3.2.2. The semantics of the Perfect revisited: anteriority of the event and a semantically underspecified state.

According to Nishiyama (2006) and Nishiyama & Koenig (2010), the semantic contribution of the perfect is reduced to introducing an eventuality and a state variable in the discourse, in a way that much resembles the standard DRT treatment of the perfect. At the same time, despite maintaining the notion that the perfect encodes anteriority with respect to the moment of the reference time and/ or the speech time, this approach does not resort to bounding the eventualities in the scope of the perfect prior to the operator's application, in line with the XN-framework.

Furthermore, this framework merely postulates that the perfect introduces an eventuality and a state variable (represented as ev and s , respectively), such that:

- ❖ The eventuality $[ev]$ satisfies the eventuality description $\varphi: [\varphi(ev)]$
- ❖ The temporal trace $[\tau]$ of a (non-necessarily proper) subpart of the eventuality $[ev' \leq ev]$, such that it still counts as an instance of the eventuality at hand $[\varphi(ev')]$, precedes the reference time $[\tau(ev') < r]$ –the latter is to be determined by the tense of the sentence.¹⁹
- ❖ The perfect state is semantically a free variable $[X(s)]$ and its temporal trace overlaps the reference time $[\tau(s) \circ r]$,

Nishiyama, 2006.

without making any further claims with respect to the temporal relations obtaining between them –contra DRT based approaches.

The eventuality in the scope of the Perfect can cover all possible types (state, activity, accomplishment, achievement), and the anteriority requirement is expressed in terms of a part of the eventuality (ev') –rather than the eventuality (ev) itself. The anteriority of the eventuality is thus derived on the basis of the aspectual properties of the eventuality

¹⁹ In the Present Perfect r overlaps the time of speech ($r \circ n$), in the Past Perfect it precedes the time of speech ($r < n$), and in the Future Perfect it follows the time of speech ($n < r$).

description in the scope of the perfect, very much like what seems to be the case under an XN analysis. The requirement that the (non-necessarily proper) subpart of the eventuality, namely ev' , still counts as an instance of the base eventuality description $[\varphi(ev')]$ helps maintain the distinction between continuative and existential readings.

Given the above, it follows that ev' will be identified with ev in case the said eventuality is bounded. The event will thus lie completely in the past and the perfect state will be either entailed (result state) or inferred from contextual information.

With stative eventualities on the other hand, it follows that, if ev' is a proper subpart of ev , then its temporal trace will precede the reference time $[\tau(ev') < r]$. At the same time, insofar as states are presumed to persist, unless specific information indicates otherwise, it is easily inferred that ev carries on at the reference time as well. In that sense, the underspecified state introduced by the Perfect $[X(s)]$, will be identified to $[ev]$ itself.

This type of analysis ensures that the universal vs. existential reading distinction is maintained without postulating a different semantics to account for the two readings.

The derivation of existential readings with inherently stative predicates follows the account of DRT. The underlying state is coerced into an event (comprising of both the state and change out of it) by means of equating (ev') to (ev), and as such is not perceived as ongoing at the reference time (Kamp & Reyle 1993; de Swart 1998, 2000). The relation of the event and the perfect state –the latter is ongoing at the reference time –is to be pragmatically determined, and involves a number of processes related to implicature strengthening (Nishiyama 2006; Nishiyama & Koenig 2010).

When it comes to continuative readings, this approach, unlike DRT, dispenses with bounding stative eventualities prior to characterizing them as ongoing at the reference time. Which means that the theory needn't appeal to underlying states altogether, seeing as it only predicts the existence of one state alone: the state, whose proper subpart is located temporally prior to whatever counts as its reference time. That we are dealing with one state rather than (i) a semantically vacuous result state, which abuts the event of 'imposing an initial boundary on the underlying state' and completely overlaps the underlying state, (ii) as well as the underlying state itself, (contra Kamp & Reyle 1993), is a trivial inference made on behalf of the addressees, who will presume that the contextually relevant state simply persists in time.

Finally, a prediction is made, according to which, in languages lacking the universal reading altogether, the requirement that the temporal trace of a part of the event $[\tau(ev')]$ precede the reference time $[\tau(ev') < r]$, is cast in terms of the event as a whole instead: [if

$ev' = ev$, then $\tau(ev') < r$ is the same as $\tau(ev) < r$] (Nishiyama 2006; Nishiyama & Koenig 2010). As is already mentioned, Modern Greek does not exhibit the Universal reading, because the Perfect participle is made up from the [+perfectively] marked verb form (Iatridou et al. 2003; Giannakidou 2003; Moser & Bella 2003). As such, the Perfect of stative base eventuality descriptions gets an unambiguously [+bounded] interpretation, i.e. it denotes a heterogeneous event plus any state that is relevant at the moment of speech.

4. The stativity of the Perfect

Both types of approaches presented so far can adequately capture the readings of the Modern Greek Present Perfect –or at least they allow for minor expansions and modifications that would permit them to do so. However, in the light of the observations above –namely that the perfect participle bears the default value [+bounded] it seems that a DRT-based analysis, is more easily applicable to Modern Greek. In that sense, before choosing to work within this framework, one must answer whether, the perfect operator can actually be treated as a stativizer.

However, it is not always the case that the state introduced by the Perfect temporally abuts the prior event, in a way that it may be entailed by its occurrence. Evidential uses of the Perfect –exhibiting reverse causality (22), and present possibility (23), among others–as well as topic negotiations (24), fall within this group. Sentence (24) specifically helps illustrate the notion of ‘current relevance’, so often associated with the Perfect, not as a condition on the world, but rather as a condition in the discourse, by means of which the speaker portrays the consequences of an event as essential to what he is saying (Dahl & Hedin 2000). Any relevant state involved in the sentences below is conversationally implicated and/ or inferred through general world knowledge.

(22) (PC)

Ostoso	mesa se mja eksaetia,	apo to 2010		
However,	inside in one 6.year.time	from the 2010		
exoun	jini	tris	eklogikes	anametrisis
HAVE-3pl.pres	take.place-3sg.non_past.pfcv	three	electoral	battles

However, we have held three general elections, over the past six-years, since 2010.

(i.e. the country is facing a problem of political instability, and the fact that there have been so many general elections over relatively small period of time –6 years –is both indicative of and resulting from the state of political instability)

(23) (PC)

The license plate number helped my colleagues locate the car's owner. His name is Giorgos Kremastjiotis.

Sto	parelthon	exi		katigorithi
In.the	past	HAVE-3sg.pres		accuse-3sg.NACT.non_past.pfcv
gia	proklisi	episodiwn,	paranomi	oploforia
of	incitement	of.riots,	illegal	possession.of.arms
ke	proklisi	somatikis vlavis.		
and	inducement	of.bodily harm.		

In the past, he has been accused of rioting, illegal possession of arms and intentional bodily harm.

(i.e. people don't change easily, and considering he's been indicted for so many offenses, it's most likely he will continue to preoccupy the prosecuting authorities for similar misdemeanors)

(24) (PC)

How long you think it will take to reduce unemployment?

Ti	stoxo	exete	vali?
What	goal	HAVE-2pl.pres	set-3sg.non_past.pfcv?

What goals have you set?

(i.e. this is a very important topic, and the speaker wishes to address it)

In what follows, I will try to offer some empirical support to the claim that the perfect essentially encodes stativity, especially since there will always be instances of perfect sentences that seemingly refute it.

Stativity is defined through three sets of binary features; temporal homogeneity, present orientation and agency –or lack thereof. In other words –being construed as ongoing at their reference time –prototypical states exhibit distributivity and cumulativity, are compatible with occurring in the present, and lack agents –i.e. exhibit properties that help

distinguish them from events (Katz 2003; Smith 1997). Demonstrating that the Modern Greek Perfect exhibits the relevant values for the aforesaid set of properties, should suffice to prove the case in point. However, distinguishing states from events is not all too straightforward when one has to address shifted meanings resulting from the application of a multitude of aspectual operators one stacked on top of the other, over the same base eventuality description.

In what follows, I will try and establish in what respect the Modern Greek perfect construction exhibits properties of states, based on three sets of diagnostics, each testing for one of the aforesaid properties.²⁰

4.1. Temporal homogeneity

Before starting to discuss the diagnostics used to test temporal homogeneity and setting forth to establish some correlation between unambiguously stative and perfect sentences, I should briefly mention by what means unambiguously stative sentences are rendered such in Modern Greek. Namely, Modern Greek associates homogeneity with [unboundedness], whereas heterogeneity is associated with [boundedness] (Giannakidou 2009, Smith 1997). The relevant grammatical concept that encodes [\pm boundedness] is grammatical aspect: sentences marked for the imperfective aspect represent unbounded eventualities. As such, they exhibit distributivity and cumulativity, and are construed as ongoing at their reference time. Contrary to that, perfectly marked sentences refer to bounded events and are negatively defined with respect to the aforementioned properties (Horrocks & Stavrou 2003, 2007; Giannakidou 2009; Moser 1994, 2009²; Holton, Mackridge & Philippaki 2004).

There is a large number of diagnostics used to demonstrate that an eventuality is temporally homogeneous. However, not all are applicable to Modern Greek, nor are they all relevant to the Perfect.²¹ The ones presented here are applicable to Modern Greek and

²⁰ I have mainly relied on tests proposed in Binnick 1991; Dowty 1986; Katz 2003; Filip 2012; Nishiyama 2006; Smith 1997; Walkova 2012.

²¹ For instance, aspectual modification by the progressive operator features among the most commonly used tests for stativity in languages that grammaticize [progressivity]. When it comes to testing the stativity of the perfect, scopal issues between the two operators, the progressive and the perfect serve as indications for the stativity of the latter.

Modern Greek, however, does not morphologically encode [\pm progressivity]. The progressive is the interpretation reserved for imperfectively marked, inherently non-stative eventuality descriptions. Since the perfect aspect is obligatorily marked as [+perfective] in Modern Greek, and the perfective and imperfective aspectual markings are mutually exclusive in the same sentence, there is no way to test whether the perfect admits modification by the [+progressive] aspect operator.

include the interpretation ensuing from a temporal subordinate when-clause modifying a clause in the perfect (4.1.1), the particular readings reserved for perfects modified by since-adverbials (4.1.2), the cooccurrence of the perfect with the present time durational adverbials (4.1.3), and its compatibility with “already”-meaning adverbials (4.1.4).

4.1.1. “When-clause” adverbial modification

A criterion that favors treating the perfect aspect as a stativity operator has to do with the temporal interpretations available to main clauses modified by a when-clause (Michaelis 1998; Nishiyama 2006; Nishiyama & Koenig 2010; Smith 1997). In the following examples, the eventualities denoted in each set of sentences are represented either as surrounding or as preceding one another.²² Specifically, the location time of the eventuality denoted in the when-clause is represented as being included in the temporal trace of the state introduced by the matrix clauses (25) and (26), whereas the two eventualities lie in a precedence relation in (27). In what follows, I will try and establish a few parallels between the temporal interpretation of (25) and (26) on the one hand, and (28) on the other, as well as try to distinguish between the (27) and (28), on similar grounds.

(25) (CS)
 O Janis itan stin kouzina
 The Janis-nom.sg BE-3sg.past.ipfcv in.the kitchen
 otan jirisa sto spiti.
 when return-1sg.past.pfcv to.the house
Janis was in the kitchen when I returned home

(26) (CS)
 O Janis sinarmologouse ti vivliothiki
 The Janis-nom.sg assemble-3sg.past.ipfcv the bookcase-acc.sg
 otan jirisa sto spiti.
 when return-1sg.past.pfcv to.the house
Janis was assembling the bookcase, when I returned home

²² I.e. their temporal traces are represented as (properly) including or preceding one another along the time axis.

(27) (CS)
 O Janis sinarmologise ti vivliothiki
 The Janis-nom.sg assemble-3sg.past.pfcv the bookcase-acc.sg
 otan jirisa sto spiti.
 when return-1sg.past.pfcv to.the house
Janis assembled the bookcase, when I returned home

(28) (CS)
 O Janis eixe sinarmologisi ti vivliothiki
 The Janis-nom.sg HAVE-3sg.past.ipfcv assemble-3sg.non_past.pfcv the ookcase
 otan jirisa sto spiti.
 when return-1sg.past.pfcv to.the house
Janis had assembled the bookcase when I returned home.

The matrix clauses in example sentences (25) and (26), represent stative eventualities. In the former, stativity is jointly contributed by the lexical predicate BE_AT_THE_KITCHEN(x) and the imperfective aspectual marking on the verb. In the latter, conversely, which denotes an inherently telic –therefore non-stative –eventuality (ASSEMBLE(Janis,the_bookcase)), stativity is solely contributed by the imperfective marking on the verb, which in its turn focuses on the unbounded part of the given eventuality. Contrary to that, the main clause of example sentence (27) represents the inherently telic eventuality (ASSEMBLE(Janis,the_bookcase)) as bounded, through the application of the perfective aspect operator, which ensues in an eventive interpretation of the sentence (Horrocks & Stavrou 2003, 2007; Giannakidou 2009). As for the temporal subordinate when-clauses, they are understood as representing a bounded, telic event.

The matrix clauses of sentences, (25) and (25) on the one hand and (27) on the other, fall into two distinct groups, with respect to their relevant ordering with the temporal subordinate when-clause. The location time of the event in the when-clause seems to be included in the location time of the state denoted in the former set of sentences ((25) and (26)), whereas it is understood as following the location time of the event in the latter (27).

However, the relative ordering of the eventualities in sentence (28) seems to resemble more the situation in (25) and (26), rather than the one in (27). In fact, the temporal trace of the when-clause is understood as being included in the location time of the state corresponding to “the aftermath of the event described in the past perfect clause” (Michaelis 1998; Nishiyama 2006; Nishiyama & Koenig 2010); i.e. the bookcase was put together (s) at the time that the speaker returned home (e): $[\tau(e) \subseteq \tau(s)]$.

Of course, the temporal interpretation of the clauses above can be cast in terms of the when-clause supplying the matrix clause with a reference time, in a way that treats temporal subordinate clauses like ordinary adverbial modifiers (Kamp & Reyle 1993). The analysis would yield the same results for the non-perfect sentences –namely, the eventualities they denote would be interpreted as including their reference time for (25) and (26) whereas (27) as following it. Analyzing sentence (28) on these grounds, however, would have implications on its interpretation, which, in this case, would amount to asserting that the event of the matrix clause precedes its reference time –i.e. $ASSEMBLE(Janis, the_bookcase)_{ev} < RETURN(I,at_home)_{ev}$. It is clear though, that there is more to the meaning of the sentence than establishing a precedence relation between the two eventualities, and the best way to capture it is by postulating that the perfect introduces a state variable in the discourse.

4.1.2. “Since” adverbial modification

Indirect evidence in favor of the analysis viewing the perfect aspect as an operator that contributes an eventuality and a perfect state in the discourse, such that the former is understood to temporally precede the reference time of the perfect sentence and the latter to overlap it, comes from adverbials such as [apo α].

[apo α] means “from a point in time, supplied by α and on” and serves to provide a time interval beginning at “ α ”, the length of which is contextually determined. The right boundary of the relevant time interval can be explicitly stated: for instance, via the adverbial [mexri β] –meaning “until a point in time, contributed by β ”; alternatively, it can be deduced from other relevant contextual information –such as the present tense morphology on the verb, which would necessarily equate the right boundary to “now”. When the tense marking is other than the present, if the interval’s right boundary is necessary for the interpretation of the sentence, it must be contextually supplied (Iatridou et al. 2003).

Depending on the aspectual characterization of the eventuality description that [apo α] operates on, the time interval it contributes can be interpreted as cotemporaneous with the said eventuality –assuming that the latter is homogeneous –or as properly including it –if it is heterogeneous.²³ Since the Perfect obligatorily bears [+perfective] aspectual

²³ Taking the relevant concept for the overlap of an eventuality with the time span introduced by [apo α] versus its proper inclusion in the latter to be [\pm boundedness], suggests that the adverbial scopes over grammatical aspect in the current analysis. The relevant ordering of [apo α] and the [\pm perfective] eventuality description modifiers is based on the fact that this particular adverbial does not pose any input requirements on the eventuality description it modifies, but can be felicitously applied to any combination of lexical and grammatical aspect, as demonstrated by the example sentences found in the present subsection.

morphology and can thus be subsumed under the perfective paradigm, the emphasis will be put on the effect of [boundedness] –contributed through perfectivity, on the one hand, and the adverbial [apo α], on the other. Their joint effect, to which we will return shortly, serves as evidence in favor of treating the Perfect as a stativizer operator. In what follows, any mention to the interaction of the imperfective with lexical aspectual operators and inner aspect, is intended to give a fuller picture of the way aspectual oppositions work in Modern Greek.

Imperfectively marked eventuality descriptions ²⁴ in the scope of [apo α] are consistent with a cotemporaneous interpretation; we have already seen how an imperfective sentence focuses on the unbounded part of an eventuality and asserts that it overlaps its location time, by means of excluding the eventuality’s –actual or perceived –boundaries from its temporal representation. The eventuality’s location time is co-extensional with the time interval provided by the adverbial [apo α, (mexri β)] ²⁵ and/or other contextual cues – for instance, the tense marking on the verb, an explicitly introduced reference time in the surrounding discourse, etc. Depending on the interaction of the grammatical aspect with the inherent, lexical aspect of the **base** eventuality description ²⁶ sentences of this sort can yield a continuative or a progressive reading (Giannakidou 2009, Moser 1994, 2009²). The first reading (29) can only be achieved with inherently stative predicates, whereas the latter with non-stative ones (30).

(29) (CS)
 Xtes, o Janis kimotan apo tis 17.00 (mexri tis 02.30).
 Yesterday, the Janis-nom.sg sleep-3sg.past.ipfcv from the 17.00 (until the 02.30).
Last night, John was asleep from 17.00 (until 02.30 in the morning).

(30) (CS)
 Xtes to apogevma, i Maria egrafe
 Yesterday the evening-acc.sg, the Maria-nom.sg write-3sg.past.ipfcv
 mia ergasia gia to sxolio apo tis 17.00 (mexri tis 20.00).
 an essay for the school from the 17.00 (until the 20.00).
Yesterday evening Maria was writing an essay for school from 17.00 (till 20.00).

Bounded –i.e. heterogeneous –eventuality descriptions in the scope of [apo α] are interpreted as properly included in the time interval purported by the adverbial.

²⁴ Eventuality descriptions denoting homogeneous eventualities, that is.

²⁵ The parenthesis “()” around “mexri β” suggests that it can be either present or contextually inferred.

²⁶ Following Nishiyama (2006), Nishiyama & Koenig (2010), I use the term “base eventuality description” to refer to eventuality descriptions consisting solely of the main predicate plus its arguments –i.e. to unmodified eventuality descriptions.

However, the interaction between the perfective operator and the inherent lexical aspect of the predicate on one hand and the adverbial on the other, invites the inference that the said eventuality occurred at “ α ”, rather than at some arbitrary subinterval of the relevant time interval. Given the explicit mention of the left boundary of the said time interval, it is possible for the event’s location time to be matched to “ α ”, in a reasoning that follows the Standard Recipe for deriving Quantity Implicatures. Namely, were there reason to believe that the event had occurred at a time other than “ α ”, the speaker would have mentioned so, by picking a more suitable point in time. Example sentence (31) below helps illustrate the case in point.

(31) (CS)
 O Janis efige jia ti doulia apo tis 7.30, to proi
 The Janis-nom.sg leave-3sg.past.pfcv for the work from the 7.30, the morning
Janis left for work at 7.30 this morning.

Rather than uttering (31), the speaker could have uttered a more informative statement (31* = Janis left for work at 8.00, or later). That (s)he didn’t do so, means that (s)he probably does not believe (31*) to be true. Furthermore, assuming that the speaker has an opinion as to whether the more informative statement is true, the stronger meaning – i.e. that the speaker believes (31*) to be false –arises.

Of course, this inference is only triggered by eventuality descriptions referring to non-iterated singular events, i.e. those [apo α] constructions that come with an existential and a uniqueness presupposition (Iatridou 2003).²⁷ Furthermore, the inherent, lexical aspect of the eventuality description affects the sentence’s overall interpretation by giving rise to inchoative or egressive readings, as we will see presently.

Having occurred “at α ” amounts to having begun “at α ” for atelic eventualities, thus favoring an inchoative interpretation (example sentences 32.a, 32.b).²⁸ The emphasis

²⁷ When iteration is involved, the only relevant reading is that of proper inclusion of each of the events in the time interval designated by the adverbial.

(i) (CS)
 Pigame tris fores ston jatro apo tin proigoumeni Tetarti.
 Go-1pl.past.pfcv three times to.the doctor from the previous Wednesday
We have been to the doctor’s office three times since last Wednesday.

On the other hand, in negated sentences the time interval, whose left boundary is supplied by [apo α], is devoid of any events of the type denoted by the predicate. In that sense, these sentences correspond to negatively defined states (Dowty 1986).

(ii) (CS)
 Den ton ida katholou apo tin proigoumeni Pempti
 NEG DO-clitic-3sg see-1sg.past.pfcv at.all from the previous Thursday
I haven’t seen him at all since last Thursday.

²⁸ The inchoative interpretation is more natural with stative eventuality descriptions than with activity denoting predicates. In fact, when it comes to the latter type of predicate, the inchoative interpretation can only be achieved through [apo α] adverbial modification. In the absence of a suitable adverbial modifier, bounded sentences containing activity denoting predicates are understood as referring back to events that

shifts to the initial boundary of the –otherwise homogeneous –eventuality, and this shift of focus represents a change-of-state event. Even though perfective sentences of this sort only assert that there was a change into a state, which began at “ α ”, it is safe to presume that the said state ²⁹ continued for at least some time following “ α ”, although it is not necessarily pictured as ongoing at the speech time (Depraetere 1998; Nishiyama 2006; Nishiyama & Koenig 2010). In fact, assuming that the tense marking is [+past], as in the examples listed below, it is likely to trigger the inference that it no longer obtains or that –even if it does –it is not particularly important or relevant in the given context (Dahl & Hedin 1998).

(32)

(a) (CS)

Yesterday evening, o Janis kimithike apo tis 9.00.
the Janis-nom.sg sleep-3sg.past.pfcv from the 9.00

Yesterday evening, Janis fell asleep at 9.00 | He slept from 9.00.

(b) (CS)

-Where is Janis?

- Pige volta sto parko apo tis 9.00.
go-3sg.past.pfcv walk-acc.sg at.the park from the 9.00. *Isn't he home yet?*

At 9.00 pm, he went for a walk in the park. Isn't he home yet?

On the other hand, having occurred in a time interval that begins “at α ” amounts to having culminated “at α ” for eventuality descriptions denoting inherently bounded –i.e. telic – eventualities, in a manner that is consistent with the default interpretation of events (example sentences (33), (34)). These sentences, bear the entailment that a certain goal is reached and that a new situation has come into existence as a result of that –i.e. an entailed state – (Depraetere 1998). The time at which the entailed state obtains, depends on the tense marking of the sentence, plus the information contributed by the adverbial. A past tense marking would serve to refer to an entailed state that obtained in the past and could possibly, but not obligatorily, extend to the time of speech. The felicity of the possible continuations explicitly refuting –or, conversely, reinforcing –the continuation of the ensuing state at the time of speech in example sentences (33) and (34), illustrate the case in point: namely that in Simple Past sentences containing [apo α], the ensuing state

have already been introduced in the discourse by independent means. In that sense, the default interpretation of perfectly marked sentences containing activity denoting predicates, is consistent with that of telic events –i.e. of having reached a termination point (Kamp & Reyle 1993).

²⁹ Or activity, although the effect is admittedly harder to achieve with activity denoting predicates, see fn. 28, above.

is typically left unfocussed. What matters, is the point in time where it began –designated by the adverbial.

(33) (CS)

- I didn't see Janis at Maria's party last night.

- Pige stin Patra apo tin perasmeni Deftera.
Go.3sg.past.pfcv to.the Patras from the last Monday

He went to Patras last Monday (and hasn't returned yet/ he only returned this morning).

(34) (CS)

O Janis efige gia ti doulia, apo tis 7.30, to proi.
The Janis-nom leave-3sg.past.pfcv for the work, from the 7.30, the morning.

He left for work at 7.30 this morning. (So, he isn't home now/ He only just got back home.)

As for the time interval $[\alpha, t]$, which is supplied by the adverbial plus any other contextual cues, it is understood as measuring out the state following from the events' culmination. In that sense, this sort of construction can be treated as the resultative “mirror image” of the inchoative interpretation attributed to homogeneous predicates, when the latter are found in the scope of the same type of adverbial, plus the perfective aspect operator.

(35) (CMG)

Nabil El Zahr has played football, ever since he was 10. He started playing at his hometown, Alès,

pije sti Nîmes apo to 1999 os to 2004,
go-3sg.past.pfcv to.the Nîmes from the 1999 until the 2004

then he went to Nîmes and stayed there from 1999 to 2004

apo eki (pije) sti Saint-Étienne os to 2006,
from there (go-3sg.past.pfcv) to.the Saint-Étienne until the 2006,

from which he left to join Saint-Étienne and stayed there until 2006, when he was acquired by Liverpool.

What (35) asserts, is that Nabil El Zahr first joined Nîmes in 1999, and was a member of the team until 2004 –the right boundary is contributed by the argument of the “until”-meaning adverbial. Joining a football team is a change-of-state event which results in the state of being a member of the team. The newly achieved state may be entailed by the occurrence of the past event itself, but the entailment itself has nothing to contribute when it comes to measuring out the temporal extent of the state. The semantics of the Simple Past leaves any ensuing states unfocused. Any claims made with respect to the duration of the latter, are achieved through explicit contextual cues.

Returning to the Perfect, we observe that the adverbial “apo α” has a similar, yet not identical, effect. When applied to inherently homogeneous eventuality descriptions, it yields inchoative readings –while the time interval contributed by the adverbial measures out the temporal extent of the homogeneous eventuality that continued throughout [α,n] (36); and when it applies to inherently heterogeneous eventuality descriptions (i.e. telic predicates) it yields resultative readings –in which case the relevant time interval contributed by the adverbial measures out the temporal extent of the result state (37).³⁰

(36) (HNC)

I kentriki pili tou Patriarxiou
 [the central gate]-nom.sg [the Patriarchate]-gen.sg.POSS
 exi mini klisti apo to 1453
 HAVE-3sg.pres remain-3sg.non-past.pfcv closed-nom.sg from the 1453
 (*ala tora ine anixti)
 (*but now BE-3sg.pres open-nom.sg)

*The central gate of the Patriarchate in Istanbul has been closed ever since 1453. (*But it is now open).*

(37) (PC)

Ta ergasiaka dikeomata exoun katargithi
 The labour rights-nom.pl have-3pl.pres abolish-3sg.NACT.pfcv.non_past
 apo to 2010. (*ala tora ta epanidrisame)
 from the 2010. (*but now DO-CL-3pl reinstate-1pl.past.pfcv)

*Labour rights have been abolished ever since 2010. (*but now they have been reinstated).*

The difference between the interpretations of the perfective past sentences and the corresponding perfect sentences is that in the former set, it isn’t the continuation of the newly achieved state –be it defined in an inchoative or in an egressive fashion –that gets focused. That the ensuing state continues well into the speech time is a cancellable implicature for the Past Perfective [apo α] sentences, whence negating it triggers no contradiction.³¹

³⁰ Again, this only applies to non-iterated, heterogeneous eventuality descriptions. Iterated eventualities are properly included in the [α,n] time interval. In the following sentence, each of the individual events is represented as properly included in the relevant time interval.

(i) (PC)
 Ostoso apo to 2010, exoun jini tris eklogikes.anametrisis
 However, from the 2010, have-3pl.pres take.place-3sg.non_past.pfcv three general.elections
However, we’ve had three general elections since 2010.

³¹ Negating that the ensuing states of the events denoted in the Past Perfective sentences –like in (33) and (34) –persist at the time of speech generates no contradiction. In fact, even though the states resulting from the prior events are understood as obtaining for some time after them, they are not represented as necessarily holding at the time of speech.

On the other hand, the continuation of the newly achieved state is part of the meaning of the sentence, in the respective perfect sentences –in (36) and (37), for instance. Furthermore, the ensuing state of events denoted in perfect sentences, is asserted to hold at the speech time. The perfect sentences in (36) and (37) do not permit a continuation that would explicitly refute the persistence of the state resulting from the prior events – namely closing down the Patriarchate and abolishing labor rights, respectively –at the time of speech. In fact, negating the ensuing state results in a contradiction. This suggests, that the Perfect focuses on the ensuing state, i.e. the state is a part of its meaning.

4.1.3. Modification by present-time oriented adverbials

Another way –somewhat related to the previous –to test the stativity of the perfect, is by looking at its compatibility with the present oriented durative adverbial “edo ke [x time]”, which roughly translates into “for [x time] now”. This particular adverbial introduces a time interval in the discourse, the right boundary of which is explicitly equated to the moment of speech by virtue of “edo” (= “here” [lit.], but seeing as the whole construction is mapped to the temporal domain, is understood as meaning “now”). Its left boundary is calculated backwards from the moment of speech, which –in its turn –serves as the interval’s right boundary (Iatridou et al. 2003). The test is used to replicate Nishiyama’s (2006) compatibility with “now” diagnostic and, as such, it is also based on distributivity of states –i.e. every subpart of a state (s) qualifies as an instance of the state.

“edo ke [x time]” is a durative adverbial, which means that the eventuality description it modifies must be homogeneous. Insofar as imperfectly marked eventuality descriptions are taken to denote homogeneous eventualities, “edo ke [x time]” felicitously combines with them (38), yielding a continuative, a progressive, or a habitual interpretation (38.a, 38.b and 38.c, respectively). Not only are the homogeneous eventualities in the said sentences construed as ongoing throughout the relevant time interval, but they are also asserted to overlap their reference time, which is mapped to the time of speech –i.e. their duration can be narrowed down to any small quantity of time (Dowty 1986; Filip 2012).

(38)

(a) (MGC)

I	ergazomeni	paramenoun	apliroti	edo	ki	ena	xrono
The	employee-nom.pl	remain-3pl.pres	unpaid	now ³²	and	one	year

The employees are unpaid for a year now.

³² “Edo” will be glossed as “now” in this particular context, taking into consideration the construction’s meaning as a whole.

(b) (MGC)

To diko.tou kanali sto YouTube litourgi edo ke ligo kero
The POSS-gen channel-acc.sg at.the YouTube operate-3sg.pres now and little time
to fimismeno teatro Bolshoi tis Mosxas
[the famous theater Bolshoi] -nom.sg of.the Moscow.

The famous Bolshoi Theater has been operating its own channel on YouTube for some time now.

(c) (MGC)

Ji' afto i.idja mila ja tin anagki ethnikis sinenosis
For this the.same-nom.sg talk-3sg.pres for the need of.[national agreement]
edo ke ena xrono (...)
now and one year (...)

This is why she has been speaking in favor of the need to reach an agreement at a national level, for a year now.

Aside measuring out eventuality descriptions that refer to homogeneous eventualities, this particular adverbial appears rather frequently in perfective and perfect clauses as well. However, the set of perfectly marked eventuality descriptions it can apply to, is a proper subset of the respective set of imperfectly and perfectly marked eventuality descriptions. Specifically, the former set almost exclusively contains telic predicates and start/finish meaning aspectual verbs –namely, the type of predicate that, when bounded, yields a change of state interpretation; or –in other words –it yields the entailment that a certain goal is reached and that, as a result of that, a new situation has come into existence (Depraetere 1998), in which case, the adverbial serves measure out the temporal extent of the result state. The implicature that the result state is still ongoing at the time of speech is reinforced by means of the adverbial. The example sentences below, illustrate the case in point:

(39)

(a) (MGC)

I kinonia eklise edo ke dekaeties ta vivlia tou emfiliou
The society-nom.sg close-3sg.past.pfcv now and decades the books of.the civil.war

The matter of the Greek civil war has been left behind for decades now.

(b) (MGC)

Ektimate oti o atixos allodapos
Reckon-3sg.NACT.past.pfcv that [the unfortunate foreign.national]-nom.sg
exase ti zoi tou edo ke kero apo pnigmo
lose-3sg.past.pfcv the life POSS.3g.gen.sg now and time from drowning.

It is believed that the unfortunate foreign national has been dead by drowning, for some time now

(c) (MGC)

Apofasismeni na sinexisoun tin apergia,
Determined-nom.pl SJNCV continue-3pl.non_past.pfcv the strike,
pou arxisan edo ke pente meres,
which start-3pl.past.pfcv now and five days,
ine i ergazomeni tou EKAV sti Thessaloniki.
BE-3pl.pres the employee-nom.pl of EKAV at.the Thessaloniki

*The employees of EKAV that are based in Thessaloniki are determined not to call off their strike, which they went on, five days ago*³³.

Change-of-state and aspectual predicates in the perfect are very frequent in the company of “edo ke [x time]”, as expected (40.a-40.c). The difference with the perfective past sentences above, lies in numerous examples of perfect sentences containing verbs of speaking and hearing, i.e. predicates that do not typically refer to situations where a change-of-state is involved (40.d, 40.e).

(40)

(a) (MGC)

Sti dini tou kiclona exi vrethi
In.the turmoil of.the hurricane HAVE-3sg.pres find-3sg.NACT.non_past.pfcv
edo ke tris mines i kiria M. Lampraki-Plaka, meta tin klopi tou Picasso
now and three months the dame M. Lampraki-Plaka, after the theft of.the Picasso

Mrs M. Lampraki-Plaka has found herself in a turmoil for three months now, after the Picasso was stolen from the National Art Gallery.

(b) (MGC)

Mia omada metanaston apo tin Eritrea exi
A group-nom.sg of.immigrants from the Eritrea HAVE-3sg.pres
pagidefti stin oudeteri zoni metaksi Israil
detach-3sg.NACT.non_past.pfcv in.the neutral zone between Israel
ke Egiptou edo ke mia vdomada
and Egypt now and a week

A group of immigrants from Eritrea have been detained in the buffer zone between Israel and Egypt, for a week now.

(c) (MGC)

I irineftikes djapragmatefsis exoun
[the peace.making negotiation]-nom.pl HAVE-3pl.pres
djakopi edo ke xronia
interrupt-3sg.NACT.non_past.pfcv now and years

It has been many years, since the peace negotiations (between the Israelis and Palestinians) stopped.

³³ The sentence asserts that the strike began 5 days ago and is still ongoing at the time of speech.

(d) (MCG)

Ena	21xrono	aglaki	kikloforise
A	21.year.old	English-DIM-nom.sg	release-3sg.past.pfcv
to	pio hip,	dubstep alboum	
	the more hip,	dubstep album	
	pou exoume	akousi	edo ke pola xronia
that	HAVE-1pl.pres	hear-3sg.non_past.pfcv	now and many years

A 21-year-old kid from the UK, released the hippest dubstep album that we've listened to so far.

(e) (MGC)

O Italos	Prothipourgos	exi	ipoxethi
The Italian	prime.minister]-nom.sg	HAVE-3sg.pres	promise-3sg.non_past.pfcv
periorismeni	miosi	ton foron,	edo ke djo xronia
limited	reduction	of.the taxes,	now and two years

It has been two years since the Italian PM has promised to reduce taxes, albeit by a little.

If the adverbial serves to measure the temporal extent of a state that persists at the time of speech, then example sentences like (40.d-e) should also have a stative component – even if the cannot be recovered by means of an entailment; the event of listening to a hip dubstep album does not have any direct and immediate results on the listener (40.d), nor does the event of promising to cut down on taxes (40.e). In any case, the time interval contributed by the adverbial helps to measure out the duration of a contextually determined state –a topic to which we will return in Sections (5) and (6).

That “edo ke [x time]” can modify any sentence in the Present Perfect, irrespective of its inner aspect, suggests that there is a stative component to the perfect’s meaning, onto which operates the adverbial. It is this stative component –contributed by the perfect operator itself, rather than by the lexical semantics of predicates –that permits perfect sentences to co-occur with “edo ke [x time]”.

4.1.4. Modification by “already”.

“Already”-meaning adverbials operate on stative propositions and indicate that a state, which began prior to the reference time, obtains at the reference time (Michaelis 1998) and –in fact –it includes the latter (de Swart 2013). The transition from a negatively defined state to a positively defined one, is part of the meaning of the adverbial (de Swart 2013). The inference that the state which obtains at the reference time began relatively early with respect to what is expected (Michaelis 1998; Mittwoch 1988) can thus be attributed to the phasal meaning of the adverbial.

The compatibility of already-meaning adverbials with stative sentences has been noted time and again in the literature (De Swart 2013; Michaelis 1998; Mittwoch 1988). In Modern Greek, “idi” (=already) combines freely with sentences that have a stative component; in fact, sentences that are positively marked for the imperfective (41, 42) or the perfect aspect (43, 44), readily admit adverbial modification by “idi”.

(41) (PC)
 O Fotis perimeni idi stin oura ja paragelia.
 The Fotis-nom.sg await-3.sg.pres already at.the cue for order
Fotis already awaits at the cue to order coffee.

(42) (PC)
 O aderfos tou idi ekane sxedia
 The brother-nom.sg POSS.3sg.gen already make-3.sg.past.ipfcv plan-acc.pl (to leave the country)
His brother was already making plans to leave the country.

(43) (PC)
 Ja ta perissotera mou exi idi milisi
 For the more IO.CL.1sg have-3.sg.pres already speak-3.sg.non-past.pfcv
 o Fotis
 the Fotis-nom.sg
Fotis has already relayed most of the story to me.

(44) (PC)
 Ti Deftera, o isageleas epiveveose afto
 The Monday, the DA-nom.sg confirmed this-acc.sg
 pou ta MME ixan idi apokalipsi,
 that the Media-nom.pl have-3.pl.past.ipfcv already reveal-3.sg.non-past.pfcv,
(i.e. that more than 150 Russian hooligans were to blame for this Saturday’s riots)
On Monday, the DA confirmed what had been already uncovered by the Media: that more than 150 Russian hooligans were to blame for this Saturday’s riots.

Based on the above, it follows that non-stative eventuality descriptions should not permit adverbial modification by “idi”. Contrary to this prediction though, “idi” can also modify bounded eventuality descriptions –especially if the latter trigger an inchoative or a resultative interpretation.

(45) (PC)

(So, moving on to our next topic...)

Ethesa idi to epomeno zitima. Ine to metanasteftiko
Raise-1.sg.past.pfcv already the next issue. Be-3.sg.pres the migration-nom.sg,

(So, moving on to our next topic...) I have already raised the next issue up for debate -it concerns immigration policies ...

Before one dismisses “idi” as a valid diagnostic for stativity on these grounds, they should consider that sentences in the perfective past can –in principle –be used to refer not only to past events, but also to their post-states –at least indirectly. Assuming that the past eventuality denoted in example sentence (45) above also results in bringing about a consequent state (Depraetere 1998), the Simple Past can be used to indirectly refer to that particular state.³⁴

In de Swart (2013) the acceptability of non-stative eventuality descriptions in the scope of “already” is attributed to two factors: (i) the input requirements of “already” –i.e. that it operates on stative eventualities –and (ii) the presuppositional meaning of “already” – i.e. that the initial boundary of the state it modifies, lies in the past with respect to the reference time. As such, the clash between the perfectly marked, eventive predicate on the one hand and the requirement that the predicate on which operates the adverbial be stative on the other, is resolved by means of postulating a covert coercion operator. It is the presence of the coercion operator that invites the inference of a consequent state obtaining at the reference time –in this case the past. And it is the accommodation of the presupposed transition from an event’s culmination to its consequent state that renders felicitous sentences like (45) above.

4.2. Present orientation

In languages that do not morphologically encode boundedness, such as English, inherently stative eventuality descriptions in the present tense tend to be interpreted episodically, as ongoing at the time of speech (46). In that sense, they exhibit “present orientation” (Binnick 1991; Katz 2003; Kamp & Reyle 1993; Walková 2012). Contrary to that, inherently eventive sentences in the simple present are interpreted as denoting

³⁴ Atelic processes partially fit this schema, in the sense that the perfective viewpoint focuses their final endpoint, thus allowing for the state ‘x is no longer V-ing’ to arise as an implicature.

habitual states (47.a) or as instances of “reportive speech” (47.b).³⁵ Of these two, the former is a shifted meaning triggered by contextual information, whereas the distribution of the latter is quite limited and reserved for special situational contexts. Given that these two readings are characterized as marked –or even marginal in the case of the “reportive speech” use –it follows that eventive sentences are not consistent with an episodic interpretation in the simple present. The perfect on the other hand seems to pair with the simple present of inherently stative predicates, in that it is interpreted episodically, and the consequent state it purports, is understood as ongoing at the time of speech. Negating the consequent state of example sentence (48), for instance, results in a contradiction.

(46) John is asleep

(47)

(a) John works long hours

(b) He scores!

(48) John has eaten all the apples (*but there are two more in the fridge).

This test may seem all too straightforward, but it cannot be applied in the case of Modern Greek, where the Simple Present tense obligatorily bears a default, imperfective aspectual marking. The ensuing interpretations –continuous (49.a) and progressive (49.b) –are determined by the lexical semantics of the predicates. Unless otherwise specified, by means of adverbial modification for instance (50), all simple present sentences are interpreted episodically, i.e. as denoting ongoing eventualities at the time of speech.

(49)

(a) (CS)

O Janis zi stin Athina

The Janis-nom.sg live-3sg.pres in.the Athens

Janis lives in Athens

(b) (CS)

Afti ti stigmi, o Janis milai ston proedro.

This the moment, the Janis-nom.sg talk-3sg.pres to.the president.

Janis is talking to the president at the moment.

(50) (CS)

Kathe proi, o Janis trexi 5km.

Every morning, the Janis-nom.sg run-3sg.pres 5km.

Janis runs 5km every morning.

³⁵ Kamp & Reyle (1993) include the “time-table” use –as in “The train for Saloniki leaves at 11.35 p.m.” – and the historical present use –i.e. a stylistic device by which past events are represented more vividly in the discourse –in the set of the readings available to inherently eventive predicates in the simple present. However, they can be subsumed under the habitual and/or the “reportive speech” interpretations, respectively.

As for sentences in the Present Perfect, the fact that they, too, are interpreted episodically, does not constitute an argument in favor of their stativity. Rather, the latter needs be determined by other means.

The contrast between the temporal interpretation of inherently stative and eventive predicates is reflected in the aspectual properties of clausal complements of “fenete” (=seem). This test was originally proposed to test the stativity of the progressive in English (Mittwoch 1988), but it can also be extended to the perfect (Nishiyama 2006; Nishiyama & Koenig 2010). Furthermore, it seems that it can accommodate Greek data as well, with minor modifications.³⁶

In the sentences below, not only inherently stative eventuality descriptions (51), as well as eventuality descriptions in the scope of a stativizer operator –such as the progressive (52.a) and the perfect (52.b)–are completely acceptable, but they are also consistent with an episodic interpretation. Contrary to that, non-progressive clauses in the scope of “seem” are either marginal or interpreted habitually (53).

(51) John seems to be in a hurry.

(52)

(a) John seems to be packing his things.

(b) John seems to have left.

(53) John seems to work out ?(#a lot)/ ?(# lately).³⁷

Of course, in the case of Modern Greek, an analogy will be established between the simple present and the present perfect instead –the former being obligatorily marked as imperfective. Just as its English counterpart, the relevant construction in Modern Greek –subjunctive complementation of “fenete” (=seem) –only selects stative complement clauses that bear the default present tense morphology –either Simple Present or Present Perfect.³⁸ Embedded clauses in the Simple Present are interpreted as continuous (54) or progressives (55), based on the meaning of the lexical predicate. In a similar vein, the ones marked for the Present Perfect are interpreted as denoting an ongoing state (56). A habitual interpretation can only arise in the context of a relevant adverbial (57).

³⁶ Katz (2003) proposes a similar test for English, that involves clausal complements of think/believe predicates. The logic is similar to the one proposed here, but the syntactic properties of the complements in Modern Greek render the test inapplicable in that language.

³⁷ The (?) marks the sentence as marginal, whereas the (#) marks a shifted, habitual interpretation.

³⁸ Subjunctives are always finite in Modern Greek (Giannakidou 2009; Spyropoulos 2007; Philippaki 2008) and as such they are specified for tense.

(54) (CS)
 O Janis fenete na zi plousioparoxa
 The Janis-nom.sg seem-3sg.pres SJNC live-3sg.pres in.luxury
Janis seems to live a luxurious life.

(55) (CS)
 O Janis fenete na viazete
 The Janis-nom.sg seem-3sg.pres SJNC hurry-3sg.NACT.pres
 na figi
 SJNC leave-3sg.non_past.pfcv
Janis seems to be hurrying to leave

(56) (CS)
 O Janis fenete
 The Janis-nom.sg seem-3sg.pres
 na exi proetimasti
 SJNC HAVE-3sg.pres prepare-3sg.NACT.non_past.pfcv
 kala ja to djagonisma.
 well for the exam.
John seems to have prepared well for the exam.

(57) (CS)
 O Janis fenete na jimnazete
 The Janis-nom.sg seem-3sg.pres SJNC work.out-3sg.NACT.pres
 (poli)/(teleftea).
 (a lot)/(lately).
Janis seems to be working out (a lot)/(lately)

The contrast between the temporal interpretation of inherently stative and eventive predicates in the Present tense is also manifest in subjunctive complements of modal verbs (Katz 2003). The modal verb “prepi” (=must) can be ambiguous between an epistemic and a deontic meaning. Schematically, when the subjunctive complement is stative (imperfectively marked) the sentence is compatible with the epistemic reading,³⁹

³⁹ Of course, there are other factors determining the overall interpretation of the sentence containing “prepi”: if the sentence is marked for 2nd person agreement, it is more likely to be understood as issuing a command (i) rather than making a mitigated statement (ii).

(i) (CS) Prepi na pinis pjo poli nero.
 Must-3sg.pres SJNC drink-2sg.pres a.lot more water
You must drink more water
 (ii) (CS) Prepi na kani poli krio sti Florina
 Must-3sg.pres SJNC do-3sg.pres much cold in.the Florina
It must be very cold in Florina

whereas when the subjunctive complement is non-stative,⁴⁰ the sentence can only be interpreted deontically.

- (58) (CS)
 Prepi na ine sto jimnastirio
 Must-3sg.pres SJNC BE-3sg.pres at.the gym
He is probably at the gym
- (59) (CS)
 Prepi na teliosoume me tis doulies mas
 Must-3sg.pres SJNC finish-1pl.non_past.pfcv with the work 1pl.POSS
 prin figoume
 before leave-1pl.non_past.pfcv
We must finish our work before we can go home.

Insofar as perfect complements to “prepi” (=must) are interpreted epistemically, the Present Perfect is aligned with stative complements, and is asserted to have a stative component.

- (60) (CS)
 Prepi na exi figi apo noris.
 Must-3sg.pres SJNC HAVE-3sg.pres leave-3sg.non_past.pfcv from early.
He must have left really early.

4.3. Agency

Testing perfect sentences for agency in Modern Greek proves almost entirely inconclusive: of the relevant set of tests used to distinguish states from other types of predicates/sentences, discussed in Binnick 1991, Filip 2012, Katz 2003, Vendler 1957, Walková 2012, i.e. (i) appearing in imperative sentences, (ii) co-occurrence with agentive

⁴⁰ Modern Greek has a perfective, non-past form which only occurs in the scope of some temporal (future) (ii) or modal (subjunctive) operator. It is explicitly marked as non_past, rather than present, because it cannot establish temporal reference (Giannakidou 2009; Roussou 2000; Spyropoulos 2007).

- (i) (CS)
 Tha to djavaso avrio,
 FUT DO.CL.3sg read-1sg.non_past.pfcv tomorrow,
 to arthro pou mou edoses
 the paper that IO.CL.1sg give-3sg.past.pfcv
Tomorrow, I will read the paper you gave me.
- (ii) (CS)
 Na to djavasis to arthro
 SJNC DO.CL.3sg read-2sg.non_past.pfcv the paper
 pou sou edosa
 that IO.CL.2sg give-3sg.past.pfcv
Make sure that you read the paper I gave you.

adverbials, (iii) occurring as the complement of verbs like “[eks]anagazo” (= to coerce, to compel), “ipoxreono” (= to oblige) or “pitho” (= to persuade), and (iv) appearing in a post-copular position in do pseudo-cleft constructions, only in the last two does the Modern Greek Perfect exhibit a similar distribution to non-agentive predicates. And even in these cases, one cannot be too sure with respect to what lack of agency should amount to.

Compatibility with the Imperative (Binnick 1191; Katz 2003; Smith 1997; Walková 2012) features among the tests distinguishing agentive from non-agentive predicates in Modern Greek. Predicates denoting prototypical, non-agentive, states, such as “iparxo” (to exist), “ime psilos” (to be tall), “ksero galika” (to know French), etc., are known to yield ill-formed Imperatives. The test however is far from conclusive with respect to the output of the Perfect operator. In fact, even though perfect sentences in the Imperative are extremely hard to come by,⁴¹ they are by no means ungrammatical (61). Furthermore, there is no clash between issuing commands and the perfect aspect –at least not from a conceptual point of view, as demonstrated by perfect sentences containing unembedded subjunctives, which are unambiguously interpreted as Imperatives in this context (62). In that sense, it is not very clear whether perfect sentences are to be characterized as non-agentive –and by extension as stative.

(61) (CS)
 ? exe simplirosi tin etisi mexri avrio
 have-2sg.imper.pres fill.out-3sg.non_past.pfcv the application-acc.sg until tomorrow
Have the application filled out by tomorrow.

(62) (CS)
 Na exis simplirosi tin etisi mexri avrio
 SJNCV have-2sg.pres fill.out-3sg.non_past.pfcv the application-acc.sg until tomorrow
Have the application filled out by tomorrow.

The question whether agentive adverbials like “epitides” (=deliberately, on purpose) are permitted in perfect sentences seems to contradict the view that the output of the Perfect operator is a prototypical, non-agentive state. For instance, even though non-agentive states do not combine with agentive adverbials (Binnick 1991; Katz 2003; Smith 1997; Walková 2012) (63), the latter are admitted in perfect sentences without problems (64), provided that the said sentences contain an agentive predicate. In this respect, the said perfect sentences exhibit the same behavior as [\pm volitional] eventuality descriptions,

⁴¹ By “Perfect Imperatives” I mean forms that are canonical [+imperative] [+perfect] derivations –i.e. where the auxiliary verb “exo” (=to have) is marked for [imperative.non-past.ipfcv.person] and the lexical verb exhibits the participial morphology marking [non-past.pfcv.3sg(default)].

represented as overlapping their location time by means of the Imperfective aspect operator (65).⁴² The latter focuses on the homogeneous part of the situations these eventuality descriptions denote, thus making explicit reference to their internal temporal constituency, while ignoring any external boundaries –be they actual or construed –to the aforesaid situations (Comrie 1976; Smith 1997). The test is thus considered inconclusive.

(63) (CS)
 O Janis (*epitides) kseri (*epitides) agglika (*epitides)
 The Janis-nom.sg (deliberately) know-3sg.pres (deliberately) English (deliberately)
**Janis deliberately knows English.*

(64) (CMG)
 Oli afti i savoura (epitides) exi (epitides)
 [All this the junk]-nom.sg (deliberately) have-3sg.pres (deliberately)
 topothetithi (epitides) stous djadromous,
 place-3sg.NACT.non_past.pfcv (deliberately) in.the hallways,
(to give the impression that the building is overcrowded)
All this junk has been deliberately piled up in the hallways, to give the impression that the building is overcrowded.

(65) (CS)
 O Janis (epitides) kani (epitides) fasaria (epitides),
 The Janis-nom.sg (delibertely) make-3sg.pres (deliberately) fuss-acc.sg (deliberately),
because he's bored and wants us to leave.
Janis is deliberately making a fuss, because he's bored and wants us to leave.

One of the tests for non-agency that the perfect seems to pass, is that it cannot appear in the complement of verbs meaning “force” and “persuade” (Binnick 1991; Smith 1997; Walková 2012). The examples below (66, 67) help illustrate the ungrammaticality of perfect sentences in this context, which resemble prototypical non-agentive states, in this respect (68).

⁴² The characterization stative or eventive takes into consideration the whole sentence, rather than just the predicate, i.e. it is primarily determined by the overt aspectual marking on the verb, together with any information contributed by other aspectual layers (Giannakidou 2003).

In short, the perfective aspectual marking suggests that the eventuality the sentence denotes is included in its location time ($\tau(\text{ev}) \subseteq t$), whereas the imperfective suggest that the eventuality overlaps its location time ($\tau(\text{ev}) \circ t$).

(66) (PC)
 Stis 31 Maiou tou 1923, o Proedros ton Elinon
 On.the 31 of.May of.the 1923, the President-nom.sg of.the Greeks
 sto Xalepi anagkastike
 at.the Aleppo force-3g.NACT.past.pfcv
 na (*exi) stili tilegrafima
 SUJNC (*have-3sg.pres)⁴³ send-3sg.non_past.pfcv telegram-acc.sg
 ston Ipourgo Eksoterikon stin Athina.
 to.the Minister of.foreign.affairs at.the Athens.

*On May 31st, 1923, the President of the Greek community in Aleppo was forced to send /*to have sent a telegram to the Minister for Foreign affairs in Athens.*

(67) (PC)
 (After he threatened me with a knife)
 me ipoxreose na kathiso/
 DO.CL.1sg force-3sg.past.pfcv SJNCV sit-1sg.non_past.pfcv/
 *exo kathisi stin karekla, dipla apo tin eksoporta,
 *have-1sg.pres sit-3sg.non_past.pfcv on.the chair, beside from the front.door

(onto which he strapped me, using this tape.)

*(After he threatened me with a knife,) he forced me to sit /*to have sat on the chair by the front door; (onto which he then strapped me, using this tape).*

(68) (CS)
 O Janis anagkase ti Maria
 the Janis-nom.sg force-3sg.past.pfcv the Maria-acc.sg
 * na kseri tin apantisi
 * SUJNC know.3sg.non-past.ipfcv the answer-acc.sg
 /* na ine psili /^{OK} na figi
 /*SUJNC be tall-nom.sg /^{OK} SUJNC leave-nom.sg
*Janis forced Maria *to know the answer/*to be tall/^{OK} to leave.*

That the ungrammaticality in the above sentences (68) can be attributed to lack of agency, seems unquestionable. However, it is not clear whether the same concept can also be used to account for the ungrammaticality of the perfect sentences in (66) and (67).

On a closer look, one can observe that the embedded clauses in the complement of “anagkazo” (=force) are headed by subjunctive markers. It is then possible that the observed effect can be attributed to the temporal properties of subjunctives instead. The idea is that the temporal reference of subjunctive complements selected by predicates

⁴³ The sentence is equally ungrammatical if the tense marking on the auxiliary “exo” (=have) changes to [+past].

meaning “force” and “persuade” is fixed –i.e. it is imposed by the semantics of the matrix predicate and it is mainly future-oriented with respect to the temporal reference established in the matrix clause or simultaneous to the latter (Spyropoulos 2007). As a consequence, the eventuality denoted in the embedded clause cannot be interpreted as preceding the one in the matrix.

We have already seen that –irrespective of the theoretical framework one chooses to work with –the Modern Greek Perfect is seen as expressing anteriority, as a result of its [+perfective] morphological marking.⁴⁴ In that sense, even though it should come as no surprise that the perfect is inadmissible in such contexts, its ban from them should not be attributed to non-volitionality.

Finally, occurrence in Wh-clefts is a test often used to distinguish agentive eventuality descriptions from non-agentive ones (Binnick 1991; Katz 2003; Smith 1997; Walková 2012). The latter are not admitted post-copularly in the pseudo-cleft construction. That wh-clefts test for agency is demonstrated in the set of sentences (69) & (70) below, which involve the θ -role of cause.

(69)

(a) (CS)

O ilios	kserane	ta sparta
The sun-nom.sg	dry-3sg.past.pfcv	the crops-acc.pl
<i>The sun dried the crops</i>		

(b) (CS)

* Afto pou ekane	o ilios,
What that DO-3sg.past.pfcv	the sun-nom.sg,
itan ine	na kserani ta sparta
BE-3.past non_past.ipfcv SUJNC	dry-3sg.non_past.pfcv the crops-acc.pl

* *What the sun did, was dry the crops.*

It comes as no surprise that predicates denoting prototypical, non-agentive states are excluded from this context:⁴⁵

⁴⁴ As a reminder, XN theory driven accounts of the perfect, which take the anteriority of perfect sentences to be an inference invited by non-stative eventuality descriptions appearing in the scope of the perfect operator, treat the Modern Greek Perfect as unambiguously encoding anteriority, by means of its [+perfective] aspect marking. Perfect sentences are understood as referring to an event that is properly included in the XN/perfect time span contributed by the Perfect, rather as overlapping it (Portner 2003, 2011; Iatridou et al. 2003). In a similar vein, DRT-driven accounts of the Perfect take the Modern Greek Perfect as encoding a bounded event –contributed by the perfectly marked Perfect Participle –and a state abutting the event, which obtains at the reference time (Kamp & Reyle 1993, de Swart 1998, 2001; Nishiyama 2006; Nishiyama & Koenig 2010). Anteriority of the event is thus a given for Modern Greek in this framework too.

⁴⁵ That these predicates are construed as representing prototypical individual level states, is demonstrated by the fact that they cannot construct a well formed perfective paradigm –the latter being associated with an

(70) (CS)
 * Afto pou ekane i Maria
 What that DO-3sg.past.pfcv the Maria-nom.sg,
 (a) itan|ine na ine psili
 BE-3.past|non_past.ipfcv SUJNC be-3sg.pres tall-nom.sg
 (b) itan|ine na kseri galika
 BE-3.past|non_past.ipfcv SUJNC know-3sg.pres french-acc.pl
 (c) itan|ine na meni stin Athina
 BE-3.past|non_past.ipfcv SUJNC live-3sg.pres in.the Athens.
 **What Maria did, was be tall/know French /live in Athens.*

It seems that perfect sentences in (71) behave on a par with the latter in this respect, the perfect operator being blocked post-copularly, which suggests that this context in particular does not qualify as agentive, and in that sense, it could be seen as a stativizer (Katz 2003).

(71) (CS)
 * Afto pou eprakse o Prothipourgos, itan|ine
 What that DO-3sg.past.pfcv the prime.minister-nom.sg, BE-3.past|non_past.ipfcv
 na exi sinantithi me ton Proedro tis Dimokratias
 SUJNC HAVE-3sg.pres meet-non_past.pfcv with the president-nom.sg of.the democracy
 * *What the Prime Minister did, was have met with the Head of State.*

Despite the fact that this particular test favors the view that the perfect operator introduces non-agentive eventualities in the discourse, this does not go to prove that lack of agency amounts to stativity. Non-volitionality is rather one of the defining properties of permanent states –the sort denoted by individual level predicates.⁴⁶ Contrary to that, stage-level predicates like “kimame” (=to be asleep), for instance (72), are admitted in this context suggesting that stativity cannot be reduced to non-volitionality.

eventive interpretation of sentences –and resort to suppletion from their respective change-of-state predicates to refer to events of the relevant type: “ime” (= to be) uses the perfective paradigm of “jinome” (=to become); “ksero” (=to know) that of “matheno” (= to learn); finally, “meno (loc.)” (= to live in [loc.]) can use the perfective paradigm of “metakomizo” (=to move) or “pijeno” (=to go).

⁴⁶ The notion of permanent state will shortly become relevant.

(72) (CS)
 Afto pou ekane o prothipourgos
 What that DO-3sg.past.pfcv the prime.minister-nom.sg,
 prin ti sinantisi me ton proedro tis dimokratias
 before the meeting with the president of.the democracy
 itan|ine na kimithi gia misi ora
 BE-3.past|non_past.ipfcv SUJNC sleep-3sg.non_past.pfc for half hour

*What the Prime Minister **did** before his meeting with the Head of State, was **take a 30-minute nap**.*

Once more, the fact that degree-achievements also seem to allow non-volitional interpretations (in their inchoative variation, that is), without automatically being dubbed “stative” –see ex. sentences (69.a) and (69.b) above –suggests that lack of agency doesn’t amount to stativity, either.

Hence, temporal properties seem to be more relevant in determining the stativity of perfect sentences, compared to agency/dynamism. Furthermore, the fact that perfect sentences are not incompatible with volitional agents –at least not in principle – constitutes an argument against treating the perfect state on a par with individual-level predicates –i.e. contra Katz (2003), according to whom the perfect state corresponds to a “timeless predication” or a permanent state, asserting the event’s “having occurred”. Equating the perfect state with the “abstract state of the past event having occurred”, holds trivially of any time interval following the event,⁴⁷ and, as such, it fails to capture the distinction between the Perfect and the Preterite (Portner 2003, 2011), among other things.

Furthermore, assigning such an interpretation to the perfect state, seems to contradict the temporal relations postulated to hold between the event and the state contributed by perfect predicates. A permanent state view, would entail that the state introduced by the application of the perfect operator begins right after the occurrence of the event. We have seen, however, that postulating the precedence of the event with respect to the perfect state is an uncalled-for generalization, especially in view of data like (20), repeated below, where the perfect sentence serves as evidence for a claim made in the surrounding discourse:

⁴⁷ I.e. it is permanent, hence the name.

(20)

O Mitsotakis exi pi to amimito:
The Mitsotakis-nom.sg HAVE-3sg.pres say-3sg.non_past.pfcv the one.of.a.kind:
“Kanis den tha to thimate se 10 xronia”
“No.one-nom.sg NEG FUT DO.CL.3sg remember.3sg.pres in 10 years.
Mitsotakis has put this into words, most eloquently: “No one will remember any of this in 10 years from now”.

That the perfect can be used as a means to attribute a claim containing an atemporal/generic state –i.e. one that obtains consistently at all times –to some source, suggests that the perfect sentence serves as evidence for the claim’s validity. In (20), the statement that “the people’s collective memory of any event does not go beyond 10 years’ time”, gets attributed to former PM, K. Mitsotakis. That it is the generic state that gets focused, rather than the past event of speaking, is manifest by the sentence being judged felicitous, despite its lacking a referent –after K. Mitsotakis’ demise. Furthermore, it is understood that the speaking event, does not actually precede the temporal trace of the state contributed by the complement clause. Seeing as the latter is viewed as eternally valid, i.e. essentially atemporal, the event is best represented as logically and temporally following from the validity of the state.

We now see that the framework proposed in Nishiyama (2006) and Nishiyama & Koenig (2010), can accommodate data such as (20), by avoiding any a priori claim with respect to the temporal ordering of the event and the state contributed by the perfect. Instead, the temporal properties of the past event and the perfect state only concern their relation with the reference time. And nothing prohibits the perfect state from beginning prior to the occurrence of the event.

4.4. Summary

What was attempted in the course of this section, is to offer empirical support to the claim that the perfect does in fact contribute a state in the discourse, and that this state is understood as overlapping its reference time. To this end, perfect sentences were subjected to a number of diagnostics, testing for temporal homogeneity, present orientation and lack of agency –all of which constitute defining properties of prototypical states.

Temporal homogeneity is ascertained through the relation of overlap between the stative eventualities and their location times, which is contributed by durative adverbials –such

as “since α ” (4.1.2) and “for x time now” (4.1.3)– as well as through their relation of inclusion with other events –explicitly stated or implicated in the context –that serve as their reference time, like for instance “when-clauses” (4.1.1) and modification by “already”-meaning adverbials (4.1.4).

Present orientation amounts to sentences explicitly marked for present tense being interpreted episodically –i.e. as ongoing at the time of speech. Both the simple present – via its default imperfective morphology –and the present perfect allow this kind of interpretation (4.2).

Even though the perfect construction consistently behaves on a par with stative eventuality descriptions with respect to its temporal properties –as demonstrated in sections (4.1) and (4.2) –it does not exhibit non-volitionality as a rule. Rather, it seems that lack of dynamism/agency is contingent upon the lexical semantics of the predicates in the scope of the perfect operator (4.3). So, the only relevant properties that one should best rely on when teasing apart the stative component of perfect constructions are temporal homogeneity and present orientation. That lack of agency or dynamism do not feature among the default properties of perfect sentences, but are contingent upon the lexical semantics of predicates around which the sentences are built, is taken as an indication that the state introduced by the perfect is not a prototypical state –i.e. the sort denoted by individual level predicates –and as such, it is not permanent either.

The semantics of the perfect proposed thus far only accounts for the temporal properties of perfect sentences, which suggests that there is more to interpretation of the latter, than the core meaning of a past event and a semantically underspecified ongoing state (Nishiyama 2006; Nishiyama & Koenig 2010). In fact, the discussion of the attributes ascribed to the perfect state, has revealed a number of inferences involved in the full interpretation of perfect sentences. These inferences were based on speakers’ expectations concerning the properties of the speech acts, which they are engaged in, as well as knowledge about the world as it is now –whether the subject has a referent and/or commonly held beliefs –and they served to supply the perfect state with a suited value.

Aside these factors, the discourse context, which perfect sentences appear in, plays a very important part in determining the value of the semantically underspecified state they contribute. Consider the following:

(73)	(PC)		
I	pinakida	tou aftokinitou, pou grafi	ton arithmo kikloforias,
The back plate		of.the car, that write-3sg.pres	the number of.circulation
exi	aferethi		
HAVE-3sg.pres	remove-3sg.NACT.non_past.pfcv		

The back plate of the car, the one that reads its license number, has been removed.

(73.i) The car's back license plate is not placed on the back fender.

(73.ii) The speaker does not know what the car's license plate is.

(73.iii) The vehicle and the driver look suspicious.

If the sentence is uttered out of the blue, or if it is presented detached from its context, the only thing that the person encountering (73) can infer, is that there was a past event [SOMEONE_REMOVE_THE_CAR'S_BACK_PLATE(e)] and an ongoing state, entailed by the occurrence of the event [THE_CAR'S_BACK_PLATE_BE_MISSING(s)] (73.i). However, uttered in context, the sentence could have a different interpretation, because the context may trigger different inferences, as indicated by (73.ii) and (73.iii).^{48,49} Establishing the patterns that permit a full interpretation of utterances in context, lies within the domain of pragmatics; and it will be thoroughly addressed in the following section.

5. The pragmatics of the perfect: calculating the value of the perfect state

This section looks at how —i.e. by what inferencing patterns —we arrive at the variable interpretations of the perfect, from a unified semantics (Nishiyama 2006; Nishiyama & Koenig 2010 —an outline of which was given in section (3.2.2)).

Upon encountering a sentence in the perfect, which —as we have already seen —refers to a past event and an ongoing, semantically underspecified state (X(s)), addressees will try to assign it a full interpretation. It is the mere presence of a free variable in the discourse

⁴⁸ It goes without saying that the list of possible values for the perfect state in (73) is proportional to the number of contexts in which the sentence can be accommodated.

⁴⁹ Note in passing that none of the inferred states above can be ascribed to the perfect sentence (73) under a permanent state analysis: The owner of the car might notice that the back plate is missing and subsequently have it replaced; alternatively, the speaker might learn the license number from the front plate; on close inspection, the driver might turn out to be completely harmless, yet careless for (s)he hadn't realized that one of the car's plates were missing. (73.i) through (73.iii) represent transient states, and as such they do not fit in a permanent-state analysis of the perfect (Nishiyama & Koenig 2010).

that triggers the inferencing process on behalf of the addressees, in order to fill in its value (Full Specificity Principle; Nishiyama 2006), in accordance with Grice's (1975) 2nd Maxim of Quantity ("Do not make your contribution more informative than required") and Levinson's Principle of Informativeness (I-Principle). According to the latter, which consists of two maxims (one concerning the speaker; the other, the addressee), speakers should produce the minimal linguistic clues that suffice to achieve their communicational ends, and as a corollary, addressees should enrich the speakers' utterances on their part, increasing their specificity (Levinson 1987).⁵⁰ Namely, addressees are instructed to interpret utterances as "at least p" –where (p) is the proposition denoted by a given sentence. Pragmatic inferences related to properties of states –namely, that states tend to persist in time –or idealizations concerning the speaker –i.e. that speakers are typically being cooperative, sincere and coherent in the course of a conversation –serve to match the value of X with the intended meaning, thus permitting a full interpretation of perfect sentences (Nishiyama 2006).

Let us illustrate by means of an example. The meaning of sentence (74) is represented in (75), in accordance with the semantics postulated for the perfect (Nishiyama 2006; Nishiyama & Koenig 2010). The formula asserts that there is an event (e) of the type "HER_PUPILS_GET_DILATED", whose temporal trace precedes the speech time [$\tau(e) < n$] and a state whose category is a free variable [X(s)] and its temporal trace overlaps the time of speech [$(\tau(s) \circ n)$]:

(74) (PC)

The camera is closing in on the woman's face.

Ta matja tis exoun djastali

The eyes POSS-3sg.gen HAVE-3pl.pres dilate-3sg.NACT.non_past.pfcv

and look as if they are about to pop out of her skull.

*The camera is closing in on the woman's face. **Her pupils have got dilated** and her eyes look as if they are about to pop out of her skull.*

(75) $\exists e \forall s [[\text{HER_PUPILS_GET_DILATED}](e) \wedge X(s) \wedge \tau(e) < n \wedge \tau(s) \circ n]$

- a) Her pupils have got dilated and her pupils are dilated (=p)
- b) Her pupils have got dilated and her vision is blurry (=p')
- c) Her pupils have got dilated and she is in extreme pain (=p'')
- d) # Her pupils have got dilated and she suffers from alcohol poisoning (=p''')

⁵⁰ The presence of the free variable and the fact that it must be assigned a value in discourse blocks a Q-implicature. A Q-implicature would amount to interpreting perfect sentences as "at most p", where (p) corresponds to the proposition denoted in the perfect sentence (Nishiyama 2006).

Sentences (75.a) through (75.d) are more informative than the one actually uttered, i.e. each of them entails (74). That the addressee will assign (74) a more specific –hence more informative –meaning, is a corollary of speaker minimization, triggered by the presence of the free variable in the semantic representation of the sentence.

The perfect state's value should be easily inferred by the occurrence of the prior event and any other contextual information and world knowledge shared among interlocutors in the course of a conversation or exchange (Mutual Inferability Principle; Nishiyama 2006).⁵¹ Only a subset of the set of potential values for the perfect state are mutually inferable by both interlocutors and intended by the speaker. Thus, a prerequisite for successful communication is that the value of X must be a member of that subset.

Taking another look at example sentence (74) illustrates the case in point. Contrary to (75.a) in which, the value the state (X) assumes is entailed by the prior occurrence of the event of someone's pupils becoming dilated, the states in (75.b) through (75.d) are typically associated with an event of "pupil dilation", in a cause-and-effect manner. More specifically, the state described in (75.b) is a typical result state of someone's pupils being fully dilated, whereas the states in (75.c) and (75.d) represent potential causes for the pupil dilation effect. However, the context in which (74) appears favors the interpretations in (75.b) and (75.c) as possible values for (74), whereas it blocks (75.d) –it describes an event of someone shooting a scene of a woman being tortured.⁵² Had the speaker wanted to convey (75.d) instead, (s)he would have probably made it more easily recoverable from the given context.

The different values that the perfect state can acquire are responsible for the polysemy of the perfect construction. A state that is entailed by the occurrence of an event or a state that is typically associated with the occurrence of an event give rise to entailed (75.a) and conversationally implicated resultative interpretations (75.b), respectively. To sum up, if one's pupils become dilated, then this entails that they are dilated, for at least some time following the event (entailed resultative reading), whereas it is common knowledge that while the effect of pupil dilation lasts, a person's eyesight will probably be impaired to some extent (conversationally implicated resultative reading). Both these inferences are mutually inferable by the interlocutors, in the right context.

⁵¹ This stipulation serves to prevent the perfect state from assuming the value of a totally irrelevant state – yet one that is perceived as ongoing at the reference time.

⁵² At a first glance, the state in (75.b) looks like a poor candidate as a value for X(s). However, it makes sense that an impaired eyesight would contribute to the woman's agony in the given context, hence (75.b) is not excluded from the set of possibly intended values for the perfect state.

On the other hand, non-resultative readings evoking reverse causality, like (75.c), present possibility, or any other non-temporal meaning, which, under a temporal semantic analysis, would be treated as giving rise to trivial inferences, such as “the event is no longer unfolding”, are now purported to encode this specific non-temporal relation. The perfect state is understood as a generic state that serves as probable cause for the occurrence of the event, or for future events of a given type.

Finally, states that are deemed irrelevant in a given context, are excluded from the set of possible values for the perfect state, even if they are ongoing at the time of speech. When it comes to the state mentioned in (75.d) for instance, it might be the case that the woman under torture is intoxicated. But the context is such, that sentence (74) “Her pupils have got dilated”, would not be expected to make any claims with respect to the consumption of alcohol on her part.

For the sake of completion, suffice it to say that languages, which use the perfect to encode that an eventuality continues at its reference time, calculate the continuative reading by postulating that the temporal trace of a proper subpart of a stative eventuality of type φ , which also counts as an instance of an eventuality of type φ , lies prior to the speech time [$\tau (ev') < n$]. In this case, the value of $X(s)$ is to be filled in with the same type of eventuality, namely $\varphi(s)$, for which it holds that it overlaps the time of speech.

At this point, we should take another look at negated perfect sentences. It was mentioned in passing, in section (2.2) that, at a first glance, negated perfect sentences seem to invite inferences yielding continuative perfects; Insofar as there is no prior event of a given type within a relevant time interval, and given that the “absence of an event” amounts to a negatively defined state extending over a time interval (Dowty 1986) –such that the latter is free from any occurrences of the said type of event –it seems plausible to claim that a proper subpart of this kind of stative eventuality does, in fact, lie in the past with respect to the reference time; and –assuming that states persist (Nishiyama 2006) –it is safe to presume that the negatively defined stative eventuality obtains at the reference time, thus giving rise to a continuative perfect.

However, it seems that adopting such an approach would result in a very impoverished meaning for negated perfects, i.e. one where the complement state entailed by the absence of a type of event would hold trivially. Specifically, (76) below, would be interpreted as the speaker admitting that there has been no event of him reading a certain book, which would result in the speaker not having read the book, and would be

tantamount to leaving the perfect state underspecified, contra what we have assumed so far.

Instead, treating negation on a par with Nishiyama & Koenig (2010), permits us to derive an actually meaningful perfect state for the sentence, namely that the lack of first-hand knowledge of the material represented in the book on behalf of the speaker, holds throughout the relevant time interval.

(76) (PC)

Did it bother you that people made a fuss over the love scenes in your book?

Den	to	exo	djavasi,
NEG	DO.CL.1sg	HAVE-1sg.pres	read-3sg.non_past.pfcv,
thelo	na	ime	ilikrinis.
want-1sg.pres	SJNC	BE-1sg.pres	honest.

Did it bother you that people made a fuss over the love scenes in your book? I haven't read it, to be honest.

The reasoning that the hearer is predicted to follow takes into account the semantic representation of the perfect sentence –given in (77.a) –as well as the properties of logical operators. Starting with the semantic representation of sentence (76), represented in (77.a), below, we observe that its structure is that of a negated conjunction. This means, that in order for (77.a) to be true, the conjunction in the scope of negation must be false; namely that either or both of its constituents are necessarily false. Unpacking the construction's representation by De Morgan's law, illustrates the case in point (77.b). However, bearing in mind the hearer's corollary of the Principle of Informativeness –i.e. that hearers should enrich speakers' utterances by means of assigning the free variable representing the perfect state an appropriate value–it follows that (77.b) will be strengthened to (77.c), according to which, it is not the case that an event of the type READ_BOOK(e) took place prior to the reference point, and that a state, whose value needs be determined, holds. Our default knowledge about causality helps determine the nature of this state, which is subsequently matched to “the speaker has no first-hand knowledge of the material represented in the book”.

(77)

- a) $\neg[\exists e (\text{READ_BOOK}(x))(e) \wedge \exists s X(s)]$
- b) $\neg\exists e (\text{READ_BOOK}(x))(e) \vee \neg\exists s X(s)$
- c) $\neg\exists e (\text{READ_BOOK}(x))(e) \wedge \exists s X(s)$

The complexity of the reasoning involved in assigning the perfect state its value and the fact that the inference of persistence is not enough in and of itself to achieve that purpose, suggests that negated perfects should be treated on a par with conversationally implicated perfects rather than continuatives.

That the semantics predicts the perfect state to hold at the reference time –the time of speech, in the case of the Present Perfect –seems to suggest that, in the case of entailed resultant states, there is no reason to evoke pragmatics in order to assign the perfect state its value. If the occurrence of the event necessarily results in the instantiation of a given state, why resort to pragmatics to capture this fact rather than exclusively rely on the semantics of the perfect?

First of all, to claim that only non-resultative perfects require of the hearer to make pragmatic inferences in order to fully interpret perfect sentences, is an unwarranted conclusion from a theory-internal perspective, seeing as it justifies a differentiated semantics for the category Perfect. Specifically, it seems to favor a bipartition of the domain of perfect states, into those that are solely determined by the semantics component –mainly entailed resultatives⁵³ –and those that are determined with the help of pragmatic principles and pragmatic inferencing rules –i.e. all the rest.

Furthermore, the requirement that the semantically underspecified state ($X(s)$) hold at the reference time, does not necessarily mean that it is the entailed state that has to be ongoing at the reference time –even in cases where the perfect sentence contains a [+bounded], telic predicate. As Nishiyama (2006, 105) mentions, there is no guarantee that the entailed resultant state continues at the reference time, or that it is the entailed resultant state that the speaker means to convey.

That the inference of persistence is a necessary one, can be supported by (78) below. The sentence may refer to the number of children that had gone missing in Greece and were still missing, at the time the sentence was uttered. It is possible, though, that the speaker merely reported the number of children that had gone missing, without making any claims as to these children’s current status –i.e. whether at least some of them were rescued and returned to their families in the meantime. In this case, the sentence would serve as evidence to stress the severity of the situation, but, strictly speaking, the entailed

⁵³ The same question can be asked for Continuative Perfects, but since this reading is not among the attested ones for Greek, I will not address the issue here. The reader may consult Nishiyama (2006: 108, 167-169) and Nishiyama & Koenig (2010: 632-633) instead. The logic behind the pragmatics component in the full interpretation of continuative perfects, follows the one presented here for resultatives.

perfect state –namely that a thousand children are currently missing –would not hold at the time of speech.

(78) (PC)
Sti xora mas, ta teleftea djo xronia
In.the country POSS.1pl, the last two years
exoun eksafanisti 1000 pedja.
HAVE-3pl.pres disappear-3sg.non_past.pfcv 1000 children
The number of children that have gone missing in our country, has risen to one thousand, over the last two years.

However, addressees, in general, are invited to infer that states persist, unless there is an indication that they have ceased to hold. Hence, the inference of persistence is a necessary condition, in order to felicitously assign the perfect state its value.

We have seen then, that with a unified semantics and by appealing to a very limited set of principles –the Full Specificity Principle and Speaker Minimization –we can account for all the types of readings associated with the perfect. What remains to be done now, is to look at the Perfect in context, and establish the functions it serves in the course of discourse.

6. The Perfect in context

The previous sections revolved around the semantics of the perfect and the requirement that addressees fill in the value of the perfect state –represented by a free variable –via pragmatic inferences. What remains to be seen, and will be the topic of the present section, is by what type of inference rules do addressees interpret sentences that contain perfect predicates. To that purpose, I will principally rely on Nishiyama’s (2006) and Nishiyama & Koenig’s (2010) treatment of the pragmatics of the Perfect, to which will be added elements from Portner’s (2003) analysis.

6.1. Perfect uses and related inference rules.

Nishiyama's (2006) and Nishiyama & Koenig's (2010) approach to the pragmatics of the Perfect, aims at simulating the specific inferences that speakers rely on, to interpret the perfect sentences they encounter.

To this end, Nishiyama (2006) studied 600 example perfect sentences in English,⁵⁴ drawn from various linguistic resources; namely from narrative, argumentative, conversational and media-related text types. What she found was that for the majority of the perfect sentences in her corpus, i.e. 81.82% of the example sentences, speakers only needed to resort to the inference of persistence in order to arrive at a full interpretation of the semantically underspecified perfect states. This 81.82% of the overall sample, roughly corresponds to the sum of entailed resultative and continuative perfect readings, which are almost equal in number (entailed resultative perfects add up to 252 (41.65%) instances; continuative perfects total to 239 (39.50%) instances).

The perfect state in the remainder of her sample is most often recoverable by means of inferences relating to default rules that reflect the speakers' expectations concerning each other's speech acts in the course of a conversation or exchange. Namely, the reasoning that speakers follow, takes into consideration the sincerity conditions associated with representative speech acts on the one hand, and subset of directive speech acts –namely questions –on the other. These types of inference rules may be underrepresented in the sample (8.43% and 2.81%, of the perfect states in the overall sample get their values by means of these inference rules, respectively) compared to the rule of persistence, but they still form clear-cut patterns.

The default rules of interpretation that interlocutors resort to upon encountering perfect sentences that contain reportative speech act verbs, reflect idealizations regarding the sources, which the original utterance is attributed to ⁵⁵ –i.e. the expectation that speakers are sincere and knowledgeable, hence they believe what they reported to be true and, as a result, what they reported is probably true/accurate.

(79) John has told me that he and Mary are staying at a cheap Bed and Breakfast in Rhodes.

⁵⁴ Nishiyama (2006) designed a comparative study of the English and Japanese perfect constructions, hence her data and analysis extend to Japanese, and her findings seem to corroborate her initial findings concerning English. Since the analysis of Japanese does not have anything more to contribute to the analysis of the Pragmatics of Modern Greek, (section 6.2), no further mention will be made to the Japanese data set or the readings and discourse functions of the Japanese Perfect construction throughout the paper.

⁵⁵ Either the speaker, or some other source of information, explicitly mentioned in the context.

Hence, the value of the perfect state is to be filled in by what is reported –which, in the case of (79), amounts to the complement clause; unless, of course, the context explicitly refutes the claim made in the complement clause –if, for example, the speaker were to add: “But I know he has taken her to a fancy resort in the outskirts of the old town, instead”. This particular effect of perfect sentences containing reportative speech act verbs, is dubbed an “evidential perfect” (Nishiyama 2006; Nishiyama & Koenig 2010).⁵⁶

As for interrogative perfect sentences, these are typically associated with setting up of a new discourse topic –at least according to Nishiyama’s data –hence the label “Topic Negotiation uses”. Questions can be subsumed under the broader category of “directive speech acts”; in Searle’s (1976) wording, “questions are attempts by the speaker to get the hearer to answer, i.e. to perform a speech act”. Furthermore, both Nishiyama (2006) and Nishiyama & Koenig (2010) rely on the sincerity conditions associated with directive speech acts in their treatment of questions –namely that speakers posing questions by means of perfect sentences, want to discuss a particular topic with their interlocutors; they want their interlocutors to respond accordingly, that is.⁵⁷

(80) Q: Have you seen “Dancing with the wolves”? (*X = I want to talk about this movie/ about movies in general*).

We have already mentioned that the types of inference rules discussed above–i.e. evidence and topic negotiation rules –both represent general, default expectations concerning speech acts. As such, they only require speakers to rely on the sincerity conditions associated with the said type of speech act, in order to assign the perfect state its proper value –hence they are subsumed under the broader category of “Speech act/ Epistemic perfect uses”.

Another thing they have in common, which has also been alluded to, is that they represent defeasible/non-monotonic entailments –i.e. it is always possible for the default inference

⁵⁶ This inference rule is also applied to perfect sentences containing commissive speech act verbs –in the sense that sincere speakers will only commit to do something, if they sincerely believe that they can actually deliver what has been promised, hence whatever lies in the complement of the commissive speech act verb is “likely to happen”.

(i) John has promised Mary that they will stay at a cozy Bed and Breakfast in Rhodes.

⁵⁷ Assuming a Searlean classification of speech acts and treating questions on a par with the category of directives as a whole, is not consistent with Nishiyama’s (2006) and Nishiyama & Koenig (2010) treatment of “Epistemic perfects” –a broader category comprising of “evidential uses” as well as “topic negotiation uses”. Based on their treatment of perfect sentences containing commissive speech act verbs –the latter are grouped together with perfect sentences containing reportative speech act verbs (see f.n. 56, above) –I gather that, should their corpus contain any instances of perfect sentences corresponding to directive speech acts (except for questions, that is), these would have probably been included in the set of evidential perfects, as well. The perfect state would be “it is likely that [p]” in this case too, given that a command or exhortation is normally directed at people who can carry out the deed denoted in [p].

to be blocked on contextual grounds. In the case of evidential rules, blocking the inference could be achieved by means of explicitly negating it, whereas in the case of topic negotiation, it could be achieved by indicating that the question does not serve the purpose of eliciting some verbal response on behalf of the addressee, but as a rhetorical question. The latter function is achieved by means of turn taking being compromised in the course of the conversation. This will become relevant in the discussion of the Modern Greek data in section (6.2.), below.

The last type of inference rule that addressees make use of when interpreting perfect sentences, is a specific commonsense entailment rule, predicting that the occurrence of the past event serves as evidence or as an explanation for the truth of a statement, found in the context of the perfect sentence. Commonsense entailment rules are represented as specific instructions to the speakers that they need only rely on the premises of an argument and take all assumptions associated with these premises to be as normal, as is consistent with what is actually stated (along the lines of Lascares & Asher 1993). For instance, (81), below, is understood as conveying the meaning that if someone watched all sorts of international programs on TV, then that would be tantamount to collecting experiences that are typically associated with an adventurous travelling around the world.

(81) ... you can go around the world in 80 channels (=X). I may not be able to get Turner Classic Movies, or TV Land, or FX on my local Time Warner system, but **I've curled up on my living room couch**, clicker in hand, **and watched**, among other things, an Italian salute to mothers; Latin American telenovelas and variety shows; Greek movies; Japanese samurai epics and modern domestic dramas; Indian musicals; the evening news from Moscow; Chinese-language pop videos; Korean game shows; and France's "Bouillon de Culture", on which farkly clad intellectuals gesticulate expressively while smoking cigarettes. (Graff, 1995-1997, Wall Street Journal 07.01.1996)

(Nishiyama 2006, 178)

It is typically conversationally implicated resultant states and non-resultant states that get filled in by this inference rule, when the speaker judges that they cannot be easily recovered by the addressee(s) in the given context. In (81) for instance, the past events referred to in the perfect sentences, serve as evidence for the validity of the claim found in the first clause; and it is this relation in particular, which this perfect use signals. The Commonsense Entailment rule can be, thus, seen as rhetorical strategy that helps establish discourse relations between different segments, in a way which renders the overall text coherent.

This particular use of the perfect resulting from the application of commonsense entailment rules, does not occur all too often in Nishiyama's (2006) corpus for English (4.63% of the overall perfects analyzed).

Interestingly, the inferencing patterns associated with Commonsense Entailment Perfects under this account, have a lot in common with Portner's (2003) treatment of non-temporal readings of the Perfect.

According to Portner (2003), what has been established in the conversational background, taken together with the proposition of the perfect sentence, can in some cases entail a certain state, thus yielding resultative readings. That entailed state, serves as an answer to a mutually agreed on discourse topic, which it settles.⁵⁸

This reading is particularly reminiscent of the one dubbed "non-entailed resultative perfect use" in Nishiyama (2006) and Nishiyama & Koenig (2010), especially since, Portner's (2003) approach, poses no requirement on discourse topics being explicitly stated in the course of a conversation. Rather, discourse topics can remain, at least in principle, implicit (Lascardes & Asher 2008), in which case they should be easily recoverable in a given conversational context –which they are, at least in the examples found in Portner's (2003) analysis.

For instance,⁵⁹ in the context of wanting to find someone to explain G. Eliot's style, where the following premises have previously been established or can be easily accommodated by discourse participants in the course of the exchange, i.e.:

- (i) To be able to discuss G. Eliot's style, one must understand it.
- (ii) To understand G. Eliot's style, one must have been exposed to her writing
- (iii) G. Eliot has written "Middlemarch"
- (iv) To understand G. Eliot's style, one's cognitive abilities must not be impaired
- (v) Mary is smart,

adding (82) to the set of premises,

- (82) Mary has read "Middlemarch"

⁵⁸ This "entailed state" is not of the same type of "entailed resultative perfect reading" in Nishiyama's (2006) and Nishiyama & Koenig's (2010) terminology. As we have seen in the previous section, the latter only relies on a default inference of persistence to be brought about, and is reserved for change-of-state predicates, asserting that the occurrence of the event they refer to, has a direct result state –such as verbs of creation and destruction, aspectual predicates that bound eventuality descriptions (like "start", "stop", "finish"), degree achievements (Hay et al. 1999), as well as statives and causatives in their inchoative alternates (Levin 1993).

⁵⁹ Examples (82) and (83) are found in Portner (2003).

entails the state that Mary is a good candidate for explaining G. Eliot's style –a piece of information that settles the discourse topic.

On the other hand, the relation among the perfect sentence and what has been established in the course of a conversation –a mutually agreed upon topic, plus any other premises that serve to address it –does not have to be one of causation. In fact, other types of relations may be established, such as evidentiary ones. Nishiyama's (2006) and Nishiyama & Koenig's (2010) non-resultative perfect uses evoke this type of relations – illustrated in (83):

(83) The Earth has been hit by giant asteroids before.

In cases such as this, where the topic elaborated on revolves around the present possibility of giant asteroids hitting the Earth, utterance (83) taken together with background assumptions, that rely on world knowledge and needn't be explicitly stated – for instance that the past is a good guide for the future in certain domains –yields the intended reading, namely that it is quite possible for the planet to suffer more impacts in the future.

The contribution of the perfect sentence lies with triggering the presupposition that the proposition it denotes necessarily provides a –complete or partial –answer to a question that has been established as the topic of the current conversation.

All the above suggest that Portner's (2003) approach, can impose an extra pragmatic constraint on the inference rules postulated by Nishiyama (2006) and Nishiyama & Koenig (2010), that would help unambiguously determine the intended reading of the perfect by means of filling in the value of the perfect state –when the latter is not entailed by the occurrence of the prior event or contextually supplied; or when it is not to be filled in by default inferences that relate to expectations concerning speech acts –namely sincerity conditions. We will see how this is effectuated upon discussing the Greek data, in the following section.

6.2. A classification of the Modern Greek Perfects: data, readings, inference rules and ensuing uses of the Modern Greek Perfect.

6.2.1. The Data

In order to determine whether Nishiyama's (2006) and Nishiyama & Koenig's (2010) predictions concerning the inference rules that speakers resort to, when confronted with perfect sentences, can transfer to Modern Greek, I had to look at actual linguistic data. To this end, I compiled a corpus, which covers a broad spectrum of text types, representing both written and spoken discourse. The latter is a bit over-represented compared to the former (68.986 vs. 55.896 words). Written data comprises of five literary works by contemporary Greek authors,⁶⁰ as well as a large number of articles and op-eds from a popular news-blog ('Protagon').⁶¹ The spoken language corpus comprises of 8:24 hours of recordings from Greek TV programs, ranging from talk shows to documentaries. The former category instantiates text types such as news reports, interviews, conversations and argumentative texts, whereas the latter can be broken down to historical narratives, interviews, conversations and argumentative texts.⁶² The material collected aired/appeared between the 29th of May and the 21st of June 2016 –with the exception of the literary texts, which were first published in 2011. Furthermore, it covers a broad spectrum of text types, and, as such, it can be said to represent the current state of the language from a synchronic point of view.⁶³

⁶⁰

- (i) Pavliotis A. (2011). *Mavri Kikni* (Black swans). In **Elinika Egklimata 4; "19 astinomikes istories"** (Greek Crimes 4; Nineteen crime stories). Athens: Kastaniotis;
- (ii) Michailides A. (2011). *To tragudi tu Gargoyle* (The Gargoyle's song). In **Elinika Egklimata 4; "19 astinomikes istories"** (Greek Crimes 4; Nineteen crime stories). Athens: Kastaniotis;
- (iii) Ragkos G. (2011). *Mavro kreas* (Black meat). In **Elinika Egklimata 4; "19 astinomikes istories"** (Greek Crimes 4; Nineteen crime stories). Athens: Kastaniotis;
- (iv) Apostolides A. (2011). *O Elinas metafrastis* (The Greek translator). In **Elinika Egklimata 4; "19 astinomikes istories"** (Greek Crimes 4; Nineteen crime stories). Athens: Kastaniotis;
- (v) Mouzourakis K. (2011). *Oplismeno skirodema* (Reinforced concrete). In **Elinika Egklimata 4; "19 astinomikes istories"** (Greek Crimes 4; Nineteen crime stories). Athens: Kastaniotis.

⁶¹ <http://www.protagon.gr/>

⁶² The oral data included in the corpus is drawn from two early morning shows ('*LIVE U*' and '*Proini zoni*', which feature in a private and in a public TV-channel respectively), excerpts from two late morning shows ('*Eleni*' and '*To proino*'), a political discussion show ('*Enikos*') and a documentary ('*Prosopika*').

⁶³ For the most part, the texts making up the corpus instantiate multi-modal, even hybrid, categories, i.e. texts that make use of rhetorical devices pertaining to more than one discourse genres, to the extent that in some cases they form mixed genres. Hence, assigning each text as a unit to one and only discourse genre, would complicate things beyond necessity. I decided to circumvent this problem by relying on discourse segments as a unit for the classification, taking formal and functional criteria into account.

Each discourse segment was assigned to one out of three broad genres –namely narrative, argument and dialogue (Fairclough 2003).

Discourse segments from literary works, news-items and documentaries representing a series of logically and chronologically related events were classified as narratives.

Following Nishiyama (2006) and Nishiyama & Koenig (2010), I examined the interpretations of all non-modal, finite present perfect sentences in the corpus, including those that occurred in embedded clauses. Non-finite forms, i.e. gerunds (84), as well as non-veridical forms, such as subjunctives (85), antecedents of conditionals (86) and modal constructions encoding possibility (87), were excluded from the analysis.

(84) (PC)

Vrontides had created an altar dedicated to vintage crime drama films, and Classic Rock,

exontas ftiaksi akoma.ke skini me avlea
 HAVE-gerund make-3.sg.non-past.pfcv even stage with curtain
 gia zontani mousiki
 for [live music]

Having built a stage for live music shows. Vrontides had put the finishing touches on what was an altar, dedicated to the worship of vintage crime drama films and Classic Rock.

(85) (PC)

Diladi, ine pithano i Madali
 That.is, be-3.sg.pres possible-nom.sg [the Madali]-nom.sg
na exi apaxthi apo ratsistiki organosi?
SUBJ HAVE-3.sg.pres abduct-3sg.NACT.non-past.pfcv by racist organization ?

You mean to say that it is possible for Madali to have been abducted by a racist organization?

(86) (PC)

An kapjos exi empnefsti
 If someone-nom.sg HAVE-3.sg.pres inspire-3.sg.NACT.non-past.pfcv
 apo ton tropo pou dra to ISIS,
 by [the way]-acc.sg that act-3.sg.pres [the ISIS]-acc.sg

and means to replicate the way ISIS works, doesn't this pose an even larger threat for rest of the world?

If people are inspired by the way ISIS works and mean to replicate it, doesn't this make things worse for the rest of the world?

Discourse segments from op-eds, news-items as well as thematic interviews (assuming their length exceeded that of three consecutive sentences) that involved persuasion and exhortation techniques were classified as argumentative discourses.

Finally, discourse segments from interviews, in which turn taking was not compromised (that is, where each speaker's contribution was not more than three sentences long), panel discussions in which panelists took turns to speak, and mimicking of dialogue in literary texts were classified as dialogue.

(87) (PC)
 Ego to ksero, alla sigoura
 I-nom.sg DO.CL.3sg know-1.sg.pres, but surely
tha exoun mini xnaria apo ema
modal have-3.pl.pres remain-3.sg.non-past.pfcv trace-nom.pl from blood
 stin avli sou
 in.the yard POSS.2sg.gen
I know that for sure, but there must have remained blood stains in your front-yard.

6.2.2. The readings

All examples were first listed under one out of the following labels for perfect uses, depending on whether they denote an entailed resultative (ER), a conversationally implicated resultative (IR) or a non-resultative (NR) perfect state. Table (1) below, shows how perfect readings –discussed in section 5, above –are distributed among discourse segments, based on the text genre that the latter are subsumed under.

	ER	IR	NR	TOTAL
ARGUMENTATION	53	45	15	113
DIALOGUE	113	88	15	216
NARRATIVE	95	28	13	136
TOTAL	261 (56.13%)	161 (34.62%)	43 (9,25%)	465 (100%)

Table 1: classification of perfect sentences

The classification above does not exactly match the one found in Nishiyama (2006) and Nishiyama & Koenig (2010). These analyses distinguish among four categories for the perfect, based on whether the readings correspond to an entailed resultative, a continuative, a conversationally implicated resultative, or a non-resultative one.

However, we have seen that, being positively marked for the perfective aspect, the Modern Greek Present Perfect does not allow the continuative interpretation altogether, so there was no reason to include that particular category in the classification.

Furthermore, Nishiyama (2006) and Nishiyama & Koenig (2010) have added an extra category to the above, namely “Other”, intended for perfect sentences that could instantiate one reading or another, based on the aspectual properties of the eventuality

description in the scope of the perfect aspect operator. Even though in most cases the context allows for a full and unique interpretation of the perfect sentence, there are few instances of sentences that permit two distinct interpretations, like in (88), for example, where the perfect state can assume either of two values: (a) the speaker’s epistemic state that is the direct result of the event of him *having seen/witnessed that [p]*, where [p] is whatever lies in the complement clause, or (b) the state conveyed by the complement clause itself, that exists independently of the event of seeing or hearing that [p], and is part of what the sentence presupposes (Abusch 2002). The decision to unambiguously classify sentences such as these into one category or the other, relied on all available information at sentence and discourse level.

Given the context of (88.a), for instance, it seemed more plausible to identify the epistemic state of “being aware that [p]” as the value of the perfect state. Not because there is something blocking the factive presupposition that whatever lies in the complement clause is necessarily true, but simply because the speaker is actively engaged in the process of establishing a common ground with his interlocutors and he is trying to make sure that they are all in possession of the same facts.

(88) (a) (PC)

Ostoso	exoume	di	oti	stis	skandinavikes	xores,
However,	HAVE-1pl.pres	see-3sg.non_past.pfcv	that	at.the	nordic	countries
i	diktes	ftoxias,	djafthoras	ke	anergias	
[the index]-nom.pl	of.poverty,	of.corruption	and	of.unemployment		
ine	poli	xamili.				
BE-3pl.pres	very	low-nom.sg				

However, what we have seen is that in Nordic countries, the rates of poverty, corruption and unemployment, are significantly lower.

On the other hand, being intended as a mitigated criticism towards a representative of the government, (88.b) refers to past events of the speaker/general public witnessing a passive and submissive behavior on the part of the government, in order to convey present possibility –i.e. to express the speaker’s fear that the government will once more comply to the terms and conditions of the IMF. In that sense, the factive presupposition seems more relevant than the epistemic state of the speaker, hence the perfect state’s value is to be filled in by whatever lies in the complement clause.

(b) (PC)

On the pretext of disbursing the next bailout tranche,

exoume di oti ipoxorite, (...)

HAVE-1pl.pres see-3sg.non_past pfcv that yield-2pl.pres, (...)

ke simorfoneste me o,ti sas zitithi

and comply-2pl.NACT.pres with everything IO.CL.2pl ask-3sg.NACT.non_past.pfcv

we have seen that you exhibit a submissive behavior, (...) and comply with all the terms and conditions you are presented with.

6.2.3. Inference rules and ensuing uses

Having classified perfect sentences based on the [\pm causal] relation of the past eventuality with the perfect state, I went on to determine the kind of inference rules that were applied in order to derive the perfect readings of the sentences in the corpus –i.e. to assign perfect states their appropriate values –bearing in mind Nishiyama’s (2006) and Nishiyama & Koenig’s (2010) classification on the one hand, and Portner’s appeal to discourse topics on the other. Table 2 –at the end of this subsection –summarizes the distribution of perfect uses based on the inference rules applied for each sentence, per discourse genre.

The examination of the Modern Greek perfect uses and the inference rules that determine them will start with entailed resultative uses. These outnumber by far all other uses of the perfect –261 instances, which amounts to 56.13% of the overall uses of the perfect. Just like their English counterparts, instances of this reading only require of addressees to draw a trivial inference, in order to find the value of the perfect state. The inference is one of persistence, and it predicts that the state entailed by the base eventuality, continues until the reference time –which in the case of the Present Perfect is mapped to the time of speech.

(89) (PC)

(SYRIZA used to be a minor political party before it rose (PAST.PFCV) to main opposition overnight and, subsequently, took office (PAST.PFCV).)

O SYRIZA tora exi pari

The SYRIZA-nom.sg now HAVE-3sg.pres take-3sg.non_past.pfcv

ti thesi tou paliou PASOK,

the place.of.the old PASOK

SYRIZA has taken the place of PASOK –in terms of turning over the voters of what used to be PASOK in its favor), (and aspires to become established as the primary social democrat party in Greece)

(90) (PC)

(Q: The performance you participate in, undertakes a theatrical perspective on “reality”, right?)

A: Ine proforikos logos, ousiastika,
BE-3sg.pres [oral speech]-nom.sg, mainly,
o opios exi katagrafi.
[the which]-nom.sg HAVE-3sg.pres document-3sg.NACT.non_past.pfcv.

It is no more than an instance of authentic oral speech, that has been put down on paper. (It much resembles a stand-up comedy show, even though I am playing another character.)

As for Speech act/Epistemic perfect uses, these are fall into two subtypes, namely Evidential and Topic Negotiation uses, which may both be underrepresented in the dataset, but like in the case of Nishiyama’s (2006) corpus study, they form a clear-cut pattern. Between them, the former has a total of 23 instances in the PC, whereas the latter a total of 25 instances –representing 4.94% and 5.38% of the overall perfect sentences.

Evidential uses of the perfect exhibit all the properties mentioned in section (6.1) above, for the respective category for English –namely they are obtained with speech act verbs in the perfect, they are interpreted by relying on interlocutors’ expectations regarding the speech acts they engage in, and as a result they purport the meaning that whatever lies in their complement is probably true, unless explicitly refuted. In the case of perfect sentences containing performative verbs meaning “promise”, the perfect state assumes the value that the denotation of the complement clause is likely to happen, unless explicitly refuted.

The PC only revealed examples of representative speech act verbs in this function (91), but I have found several perfect sentences that contain verbs meaning “promise” in the MGC, whose readings are consistent with “it is likely that [p]”, among which was (92), below.

In (91), the statement in the embedded clause –that a quarrel which resulted in the death of a schoolboy was triggered by a trivial incident –is attributed to the culprit, in the context of him giving a deposition to the police authorities. The sincerity condition associated with the speech act of reporting past events, especially in the context of giving a sworn deposition, invites the inference that what was reported, is most likely true, hence the value of the perfect state is filled in by “*It is true that the quarrel was about the tractors owned by the children’s families*”.

(91) (PC)

Exi pi oti [o kavgas]
 HAVE.3sg.pres say.3sg.non_past.pfcv that [the fight]-nom.sg
 pou katelikse sti dolofonia,
 which result-3sg.past.pfcv in.the murder,
 ksekinise apo mia logomaxia sxetika me ta trakter
 begin-3sg.past.pfcv from a quarrel regarding with the tractors
 pou ixan i gonis ton pedjon
 which own-3pl.past.ipfcv [the parents]-nom.pl of.[the children]
He has said that the fight, which resulted in the murder (of a schoolboy), began from a quarrel (between the deceased and his classmate, i.e. the culprit) regarding their parents' tractors. Specifically, the fourteen-year-old was teased (by the deceased) that his father couldn't afford a better tractor.

(92) on the other hand, invites the inference that the proposition of the embedded clause is likely to happen. In fact, the previous sentence asserts that the company has begun to drain the polluted water from the defective tanks, thus adding to the credibility of the source of the utterance and increasing the likelihood of the eventuality in the complement clause occurring (the value of the perfect state).

(92) (MGC)

(Tepco is trying to collect the radioactively contaminated water and)

exi iposxethi na adjasi
 HAVE-3sg.pres promise-3sg.non_past.pfcv SJNC empty-3sg.non_past.pfcv
 tis elatomatikes deksamenes to sintomotero dinaton.
 the defective tanks the sooner possible
Tepco is trying to collect the radioactively contaminated water and has promised to drain the defective water tanks as soon as possible.

However, it is not the case that perfect sentences containing speech act verbs unambiguously give rise to evidential perfects. Any exceptions to the general, default rule can be attributed to one of the following factors; first, it is sometimes the case that the situational context in which a sentence containing a speech act verb in the perfect is uttered, seems to convey the meaning “the proposition in the embedded clause –or the proposition referred back to, by means of a resumptive object clitic –is known to the addressees”.

The discourse segments triggering this interpretation were characterized as “dialogue” and the context they appeared in, was that of TV interviews. More often than not, the

relevant sentences encoded iterativity somehow –through affixes meaning “again” on the speech act verbs, like in (93). Their intended reading was that “*reporters/audiences/the general public have heard a certain (economic or political) analysis/idea so many times, that they are now familiar with it –i.e. they know all there is to know about it*”. In this respect, examples such as (93) seem to stress that the epistemic state the intended recipients of the utterance find themselves in, is a result of them having been exposed to it before. The value of the perfect state then, is to be filled in by the epistemic state of the intended recipients of the utterance, namely that they are aware of whatever lies in the complement of the speech act verb, at the time of speech.

(93) (PC)
Q: It has been mentioned again the parliamentary representation should not be determined by a general election but by ballots in voters’ workplaces?

A: **To** exi ksanapi ke o Gramateas
 DO.CL.3sg ⁶⁴ HAVE-3sg.pres again.say-3sg.non_past.pfcv and the Secretary-nom.sg
 ke i Aleka Papariga
 and the Aleka Papariga-nom.sg

Both the Secretary General and Aleka Papariga have mentioned this before.

The other reason has to do with the fact that sometimes speakers aim at taking their addressees by surprise. To this end they make use of rhetorical devices such as irony, like in (94), for instance. That the perfect use of (94) is not an evidential one, is manifest from the fact that the proposition in the scope of the speech act verb contains a contradiction, i.e. “putting together a committee of three members, such that it consists of four or five members”. It seems that in cases such as this, addressees need to look in the context in order to fill in the value of the perfect state.

(94) (PC)
 O Nikolas o Vamvakoulas exi pi
 [The Nikolas the Vamvakoulas]-nom.sg HAVE-3sg.pres say-3sg.non_past.pfcv

tin istoriki frasi:

the historical phrase:

“Na kanoume mia trimeli epitropi
 SJNC make-1pl.non_past.pfcv a three.member committee
 apo tessera -pente atoma”
 from four -five people

Nikolas Vamvakoulas has uttered the famous remark, that “we should put together a committee of three people, such that it consists of four or five people”

⁶⁴ The direct object clitic (DO.CL.3sg) refers back to the content of a political analysis, summarized in the previous question.

We have seen that according to Nishiyama (2006) and Nishiyama & Koenig (2010), Perfect inquisitive sentences help to set up a discourse topic, either by shifting the conversation to a new topic of interest, or by initiating a conversation in the first place. This function is also manifest in Modern Greek, where it represents 5.38% of the overall uses of the perfect.

Speakers can request to shift to a new topic for discussion by inquiring whether an epistemic precondition for having a conversation on the topic of their choice is satisfied – namely whether their interlocutors are knowledgeable with respect to the given topic (95) or they can just introduce a new aspect to a mutually agreed on topic, like in (96) and (97).

(95) (PC)

Those opposing a “pure” Proportional Representation system, claim that the lack of an electoral threshold could result in radical nationalists from ethnic minorities winning parliamentary seats in an attempt to destabilize the country.

To exete akousi afto?
 DO.CL-3sg HAVE-2pl.pres hear-3sg.non_past.pfcv this?

Have you heard that/this kind of political analysis?

(96) (PC)

(The topic discussed by the anchorperson and a reporter revolves around a forest fire in Cyprus, threatening nearby residential areas)

Exoun ekenothi xoria stin perioxi?
 HAVE-3pl.pres evacuate-3sg.NACT.non_past.pfcv villages in.the area?

Has any nearby village been evacuated?

(97) (PC)

(The context in which the question is asked is that of a police officer interrogating a suspect for murder)

Posous akoma exis skotosi?
 How.many more HAVE-2sg.pres kill-3sg.non_past_pfcv?

How many more people have you murdered?

The function of setting up a new discourse topic, or of shedding light on some previously unknown aspect of a topic that has already been introduced in the discourse is only available with inquisitive perfect sentences that serve the purpose of eliciting information (Asher & Lascarides 1998). Of the 42 interrogative perfect sentences in the corpus, only 25 serve this function. The rest are rhetorical questions, i.e. statements disguised as questions, that call on the addressee’s involvement, indicating the thought process that

(s)he should follow if he were to reach the conclusion that the speaker intends him/her to reach (Frank 1990).

True perfect elicitation is distinguished from rhetorical questions in the perfect as turn-taking is not compromised throughout the exchange, only in the former type. In simpler terms, an interrogative perfect sentence is not intended as a true elicitation, unless the addressee is given time to respond. In (98) speakers take turns to ask questions and respond to one another.

(98) (PC)

A: Shall we start making patties?

*B: By all means! Exis vali djaforetikous kimades?
HAVE-2sg.pres put-3sg.non_past.pfcv different minced.meat-pl?
Have you put different kinds of minced meat in the mixture?*

A: Yes, Mr. Kirjakakis sent us 3 different types, namely pork, lamb and beef. You can use them in any combination, but bear in mind that the lamb and the pork have more fat in them.

On the other hand, the intended answer to a rhetorical question is implied by the question itself, which means that the addressee is not expected to contribute a response, hence there is no need for the speaker to pause and give him time to respond. In (99), below, the anchorperson (A) posed (B) a question. However (B), an MP for the government, was interrupted by (C), an MP for the opposition, who intervened in order to criticize the government's benefits policy. There are two rhetorical questions in the perfect in his retort, the intended answer to which –namely “No” –serves to fill in the value of the perfect state.

(99) (PC)

A: So, your plan is to distribute € 2.8 billion to those living below the poverty line?

B: (tries to answer)

C: (interrupts A). And they get it all back in October, with the bill regulating workplace legislation. But let me make one remark and I'm through with what I wanted to say.

(i)

Exoun dierotithi oti afti ti stigmi
HAVE-3pl.pres ask-3sg.NACT.non_past.pfcv that this the moment
iparxoun 360.000 sintaksiouxi
exist-3pl.pres 360.000 pensioners

pou perimenoun na paroune ti sintaksi tous 2 ke 3 xronia?
that wait-3pl.pres SJNC receive the pension POSS-3pl.gen 2 and 3 years?

Have they even considered that this very moment 360.000 pensioners are still waiting to collect their pensions, after 2 or 3 years of leaving the workforce?

That's a lot of money we 're talking about. There is also the € 1 billion of lump sum benefits they owe, not to mention that the state's debt to the private sector has reached € 9 billion. This € 2.8 billion does not suffice to cover the state's outstanding debts.

(ii)

Afti tin tragiki katastasi, tin exoun katalavi?

This the tragic situation, DO.CL.3sg HAVE-3pl.pres realize-3sg.non_past.pfcv?

Have they understood how tragic things are?

Can they make sense of things or is reality too much for them?

What the example sentences above seem to be doing, is ascribe the government the property of not being able to understand that their economic policy puts civilians in a desperate financial situation. Under their intended reading, the perfect interrogative sentences in (99.i-ii) seem to offer support to that claim, supplied in the final sentence of the argument, again, in the form of a rhetorical question. This evidentiary discourse relation between the perfect rhetorical questions on the one hand and the sentence concluding the argument on the other, brings us to the last type of perfect use, namely Commonsense Entailment.

We saw that the Commonsense Entailment inference rule is manifest in Modern Greek as well. The respective category of perfect uses might not appear too often in the corpus, but its instances are much more frequent than those of its English counterpart –representing 11,61% of the overall perfect sentences. In terms of function it does not differ substantially from Nishiyama's (2006) category, at least in its standard version: its main purpose is to help the addressee identify the intended value of the perfect state, should the latter not be salient enough to be considered mutually inferable by the interlocutors. In that sense, one of the functions associated with the perfect is that it establishes rhetorical relations between discourse segments, in a way that renders the discourse coherent. In (100), for instance, the past events of One Republic, Joe Bonamassa and Joe Steve Harris having stayed at a particular resort, serve as evidence for the claim found in the prior sentence –marked with underscore –namely that the particular recording studio/hotel is a tourist attraction for acclaimed musicians from all over the world. The rhetorical relation of evidence that is established between the two sentences, helps the addressee defeasibly infer the truth of the first sentence from the truth of the perfect sentence that immediately follows it (Nishiyama 2006).

(100) (PC)

It is no surprise that the idea that K.Kalimeris came up with has been a success and that his studio is an attraction for musicians from all around the world.

One Republic, Joe Bonamassa, Joe Steve Harris ton Iron Maiden

One Republic, Joe Bonamassa, Joe Steve Harris of.the Iron Maiden

ine mono meriki apo tous star pagkosmiou velinekous

BE-3pl.pres just few-nom.pm from the stars of.[global scope]

pou exoun djamini eki.

that HAVE-3pl.pres stay-3sg.non_past.pfcv there.

One Republic, Joe Bonamassa, Joe Steve Harris of Iron Maiden –to name but a few –are among the acclaimed artists that have stayed there.

After having looked at how the Commonsense Entailment rule –in its standard version – helps determine the value of the perfect state, in cases where the latter is not accessed through default inference rules, we can turn to its non-standard version, that was mentioned in passing, in the previous section. In what follows, I will make use of Portner’s (2003) analysis of the non-temporal readings of the Perfect, as a means to constrain the reasoning one engages in, when attempting to fully interpret a perfect sentence. Instances of this type of the Commonsense Entailment rule occur quite often –they appear 102 times in the corpus, representing 21.94% of the overall perfect uses.

The following example helps illustrate how the perfect state receives an interpretation via the Commonsense Entailment rule, when the context does not supply it with an explicit appropriate value. A brief look at the context reveals that sentences (101.i) through (101.iii) serve as evidence for the validity of the bounded eventuality description of “*engaging in a four-hour long stake-out, waiting for the suspect to show up*”. However, this evidence relation has nothing to purport in and of itself, when it comes to uncovering the intended value of the perfect state for each sentence.

(101) PC

Ime stimeni sxedon 4 ores

BE-pres.1sg stand.waiting.nom.sg almost 4 hours

apenanti apo to spiti tou Kremastioti, ston Neo Kosmo.

opposite from the house of.[the Kremastiotis], at.the Neos Kosmos.

I’ve spent (PRES.) the best part of (the past) four hours facing Kremastiotis’ place, at the neighborhood of Neos Kosmos (waiting for him to show up).

- (i) Exo fai djo athlia sandouits,
HAVE-1sg.pres eat-3sg.non_past.pfcv two lousy sandwiches
(So far,) I have had two lousy sandwiches,
- (ii) exo pji mja damitzana kafe
HAVE-1sg.pres drink-3sg.non_past.pfcv a carboy of.coffee
I have had a bucket of coffee,
- (iii) exo akousi oli ti silogi
HAVE-1sg.pres listen.to-3sg.non_past.pfcv all the collection
tragoudjon pou exo apothikevmeni
of.songs that HAVE-1sg.pres stored-NACT
sto kinito mou
on.the mobile.phone POSS.1sg
I have listened to the entire collection of music stored on my mobile phone,
- (iv) ke o tipos den exi fani.
and [the guy]-nom.sg NEG HAVE-3sg.pres show.up-3sg.non_past.pfcv
and the guy still hasn't showed up.

I've spent (PRES.) the best part of four hours facing Kremastiotis' place, at the neighborhood of Neos Kosmos (waiting for him to show up). (i) I have had two lousy sandwiches, (ii) I have had a bucket of coffee, (iii) I have listened to the entire collection of music stored on my mobile phone (iv) and the guy still hasn't showed up.

Seeing as the eventualities found in the perfect sentences (101.i-iii) only superficially look like [+bounded] telic events, we cannot assume each of them entails its respective perfect state. On close inspection, sentence (101.i) does not refer to a single event; rather it involves iteration, which tends to repress any reference to the individual events' result states, as we have already seen (Giannakidou 2003). Not to mention, that even if the consumption of the two sandwiches were to count as a single event, it is not all too clear what a suitable candidate for the value of the entailed state would be. Neither "two sandwiches are consumed", nor "the narrator is no longer hungry" seem like plausible – or even remotely relevant – interpretations, given the context.

In a similar vein, sentence (101.ii) only seemingly refers to a [+bounded] telic event of the type of "drinking a bucket of coffee". Instead, what the sentence conveys is that the narrator had one too many cups –thus implicating that the sentence refers to a number of instances of the drinking coffee event-type –albeit each of them most likely involved regular helpings. Insofar as the sentence favors an iterative interpretation, the entailed result-state reading is, once more, blocked. On the other hand, treating the sentence as type-referring (Dahl & Hedin 2000), can give rise to a number of associated states –for

instance, “the narrator feels agitated and uneasy as a result of having had too much coffee” or “the narrator has stomach ache as a result of having had too much coffee”, etc. –none of which seem particularly relevant in the given context.

(101.iii) is interpreted following the same principles as (101.i) and (101.ii). Having listened to the entire collection of songs stored in one’s phone amounts to one having listened to a large number of songs –an interpretation that seems more appropriate, given the context. It seems, then, that the value of the underspecified states that these three perfect sentences introduce, needs to be calculated a bit differently –along the lines of Portner (2003).

Adding premises –in the form of the perfect sentences –to the initial statement of that particular discourse segment, reveals the intended value of the perfect state; namely that “the narrator is killing time, during the four-hour long stake-out”. In that sense, the perfect sentences have a twofold purpose: first, they serve as evidence for the validity of the implicit perfect state –the latter matches the discourse topic around which revolves this particular segment of the narrative –and, second, they elaborate on it, i.e. the events that lie in the denotation of the sentences (101.i) through (101.iii) are understood as subparts of the eventuality of the perfect state –in a manner consistent with Lascarides & Asher (1993, 2008), Nishiyama (2006) and Ritz (2007).

At the same time, each of the three perfect sentences (101.i-101.iii) forms a relation of Continuation with the other two. Namely, the events of eating sandwiches, drinking coffee and listening to music may have occurred in any order or they may have overlapped with each other. In that sense, what the perfect sentences at hand seem to be doing, is describe an unordered set of events which, in its turn, is used to elaborate on an implicit discourse topic. This discourse function has also been attested for the English Present Perfect in De Swart (2007).

That these perfect sentences are classified as a subcategory of the perfect uses defined via the Commonsense Entailment rule is far from self-explanatory. Contrary to the examples discussed in Nishiyama (2006) and Nishiyama & Koenig (2010), where the perfect state is always explicitly mentioned in the surrounding discourse, what we are dealing with here is instances of the Commonsense Entailment rule, where the value of the perfect state matches an implicit discourse topic. So how does one arrive at classifying this kind of perfect sentences as a subtype of Commonsense Entailment uses? The answer is “by a process of elimination”.

In none of the sentences in (101.i) through (101.iii) is the perfect state entailed by the occurrence of the past event. Rather, the perfect state is accessed through an inferencing process that makes use of propositions established in the common ground, as well as a general understanding concerning causation that is shared among interlocutors, to which are added the perfect sentences.

Contrary to the basic property of an entailed state –namely that it is not defeasible –this type of inference is non-monotonic and any conclusions derived by it are defeasible. The value of the perfect state may thus change, assuming more context is added. It is possible, for instance, that upon encountering (101.i) a reader would interpret the perfect state as “*the narrator is no longer hungry*”, in anticipation of some plausible link of the perfect sentence to its surrounding discourse. However, faced with (101.ii), the addressee will probably dismiss the perfect state previously assigned to (101.i) and will opt, instead, for a more suited interpretation, which will subsequently be reinforced by (101.iii).

Furthermore, in none of these sentences is the perfect state accessed through default inference rules either; in fact, the inference rule yielding the intended reading of the sentences (101.i) through (101.iii) above is extremely specific.⁶⁵ Namely “if someone eats two sandwiches, drinks too much coffee, and listens to an entire playlist of a substantial length during a stake-out, then they are killing time”. Thus, the perfect use should not be classified as an Evidential one either.

Finally, under Portner’s (2003) analysis, the perfect state’s value can either be entailed by a set of premises that are part of the interlocutors shared knowledge, to which is added the perfect sentence or, alternatively, it can just be compatible with them –in a way that calls to mind Nishiyama’s (2006) and Nishiyama & Koenig’s (2010) dichotomy of those perfect readings, whose value can be determined via a Commonsense Entailment rule; namely conversationally implicated resultative and non-resultative readings, respectively. This suggests that appealing to mutually agreed or easily accommodated discourse topics, which the perfect sentences settle, should probably be incorporated in the analysis of the Modern Greek Perfect –where it should define a separate subclass of the perfect readings recoverable by means of specific Commonsense Entailment rules.

⁶⁵ Whether the default rules yield entailed resultative uses or evidential uses is of no importance here.

	PERSISTENCE	SPEECH ACT/ EPISTEMIC	TOPIC NEGOTIATION	COMMONSENSE ENTAILMENT (i)	COMMONSENSE ENTAILMENT (ii)	TOTAL
ARGUMENTATION	53	5	1	23 (IR: 13 NR: 10)	31 (IR: 26 NR:5)	113
DIALOGUE	113	14	24	16 (IR: 4 NR: 12)	49 (IR: 46 NR: 3)	216
NARRATIVE	95	4	0	15 (IR: 8 NR: 7)	22 (IR: 16 NR: 6)	136
TOTAL	261 (56,13%)	23 (4.94%)	25 (5.38%)	54 (11.61%)	102 (21,94%)	465 (100%)

Table 2: Classification of perfect states based on the inference rules they require.

The output of the inferencing process by means of which the semantically underspecified perfect state is assigned an appropriate value, not only permits addressees to fully interpret the perfect sentences they encounter, but also to inductively arrive at the temporal structure of a text/discourse. Temporal and aspectual information conveyed in a text plays a critical role in discovering its temporal structure, but so does any information contributed by the rhetorical structure –cast in terms of hierarchically ordered, binary relations –established among the discourse segments making up the overall text (Ritz 2007).

That the discourse segments are linked through various rhetorical relations, renders the discourse coherent. At the same time, newly introduced eventualities in the discourse establish such relations with eventualities in their surrounding context. In fact, the more rhetorical relations there are between two discourse segments, the more coherent their interpretation is (Lascarides & Asher 2008).

The semantics that have been proposed for the perfect construction –namely positing that the perfect introduces an event and a state variable in the discourse –augments the number of relations that hold among eventualities in the discourse, thus increasing the coherence of the text as a whole (Nishiyama 2006). This organizational function of the Perfect has only been mentioned in passing in the course of this section, on the occasion of presenting the Commonsense Entailment rule, whereby the value of the perfect state needs be filled in by some contextual element or through inferences that make use of the context. In that sense, it is the rhetorical relation linking the perfect sentence to its context or to an implicit discourse topic, that renders the overall discourse coherent. However, since offering a comprehensive overview of the rhetorical relations which perfect

sentences take part in, lies beyond the scope of the present paper, suffice it to say that in the case of entailed resultatives and evidential perfects, the perfect state helps establish an added connection between the perfect sentence and whatever lies in its context, thus increasing the coherence of the discourse (Nishiyama 2006; Nishiyama & Koenig 2010).

7. Conclusions

The main goal of the paper has been twofold; First, to provide a semantics that adequately captures all the readings –and only those –associated with the Modern Greek Perfect construction, while maintaining a strong connection to the cross-linguistic category of the Perfect. Second, to extend the semantics of the perfect with a principled pragmatic component, which would accurately predict the reading of any given perfect sentence.

To this end, I first examined the morphological properties of the perfect construction and proceeded to determine the impact of the aspectual characteristics of the perfect operator on verbal predicates (Section 2). In accordance with Giannakidou (2003), Dahl & Hedin (2000), Iatridou et al. (2003), Holton et al. (2004), to name but a few, I found that the Greek Perfect only exhibits a proper subset of the readings associated with the cross-linguistic category of the Perfect –namely the resultative and the experiential –owing to the perfective marking that the perfect participle bears. That the perfect aspect can be subsumed under the paradigm of the perfective, which morphologically encodes a positive value for boundedness (Horrocks & Stavrou 2003, 2007; Giannakidou 2009; Moser 1994, 2009²; Holton, Mackridge & Philippaki 2004), comes with the implication that it blocks continuative readings altogether. Differently put, the Modern Greek Perfect encodes anteriority of an event with respect to the reference time, while at the same time, it maintains a link to the latter. As for the perfect of the recent past, it was shown that it is excluded from the set of available readings on independent grounds.

I subsequently investigated which of the two main and competing frameworks –namely the Extended Now theory (Iatridou et al. 2003; Portner 2003, 2011) and a number of DRT-based approaches (Kamp & Reyle 1993; de Swart 1998, 2002) –could serve as a basis for the semantic analysis of the Modern Greek Perfect construction or whether taking an intermediate position and attempting a synthesis of the two (Nishiyama 2006; Nishiyama & Koenig 2010), could yield better results (Section 3).

A quick review of the approaches mentioned above revealed that the semantics postulated by each of them –with minor modifications and extensions –yielded a, more or less, accurate temporal semantic representation of the Modern Greek Perfect; in other words, based on the morphological properties of the perfect aspect marker, they all predicted that the eventuality description in its scope obligatorily denotes an event that lies in the past with respect to the reference time –which explains why Modern Greek only permits existential readings and blocks the continuative reading.

However, the approaches differ on the grounds of the semantic distinctions they postulate for the perfect. Under an Extended Now analysis, for instance, one would only distinguish between a continuative and an existential meaning –lumping together resultative, experiential and hot news perfect readings. The latter readings are discriminated by means of a pragmatic component, taking into account a resultative and a current relevance presupposition, respectively (Portner 2003) –setting aside the debated status of the hot news perfect (section 3.1).

On the other hand, DRT-based approaches rest on the assumption that the perfect is an aspectual operator contributing stativity, i.e., an operator that maps eventualities of some sort, to their ensuing states (de Swart 1998, 2000). The different readings of the perfect construction are represented by means of separate types of DRSs, but the latter all rely on the same set of assumptions –namely that the perfect operates on eventuality descriptions denoting bounded events and yields an ensuing state (Kamp & Reyle 1993). The events are bounded by means of having an inherent endpoint or by being construed as having one; in which case, boundedness is achieved through the application of some aspectual modifier operator, lexical or grammatical –the latter can be overt or covert. As for the ensuing states, these are treated as abutting the events they stem from and as ongoing at the reference time, thus giving rise to the inference that the events described by perfect sentences precede their reference time. In that sense, even though the temporal representations of perfect constructions of DRT-based approaches distinguish, among three readings –namely resultative, continuative and existential/experiential –they all involve appealing to the notion of a “result state”, which, as we have seen, is a postulation that may represent the prototypical case, but it is in general inaccurate (Section 3.2.1).

That assumption was remedied in Nishiyama (2006) and Nishiyama & Koenig (2010), who –despite relying on DRT –treated the perfect operator as explicitly conveying anteriority of the event denoted by the perfect predicate with respect to the reference time, but at the same time made no claims regarding the boundedness of the perfect predicate itself. Anteriority was cast in terms of a non-necessarily proper subpart of the

event instead. This condition, taken together with the standard DRT-assumption that the perfect introduces an ongoing state at the time of reference, permits to account for resultative, continuative and non-resultative perfects as well. Another point of departure of this framework from standard DRT-approaches, has been the claim that the state introduced by the perfect is, in fact, semantically underspecified and that its value is to be determined by a separate pragmatic component. That the semantic representation of the perfect under this analysis could account for all the readings of the perfect construction found in Modern Greek—including non-resultative ones –and block the unattested readings, is what caused me to rely on it in the examination of the readings and functions of the Modern Greek perfect, in the first place (section 3.2.2).

This decision was further supported by the fact that testing the Modern Greek Perfect for stativity, yielded positive results (Section 4). In fact, the perfect was shown to unambiguously contribute a stative component to the discourse; and it was shown that the stative component, in its turn, can either follow –both temporally and logically –from the past event, or the event can be temporally included in it. Another thing that testing for the stativity of the perfect revealed, is that its value is variable and needs be contextually determined, via pragmatic inferences.

The latter fall within the pragmatic component of the analysis of the perfect construction (Section 5). It is Levinson's (1987) I-principle that serves as the general principle governing the pragmatic reasoning involved in assigning the perfect state with an appropriate value. The idea is that the presence of the free variable in the semantic representation of perfect sentences, is understood by addressees as an instance of speaker minimization, causing them to pragmatically enrich the utterances, increasing their specificity. The requirement that the speaker fill in a specific value of the perfect state permits us to arrive at a meaningful interpretation of negated perfect sentences, as well (Nishiyama & Koenig 2010).

The particular inference rules on which rests the interpretation of perfect sentences –i.e. the rules required to assign the semantically underspecified perfect state an appropriate value –were the topic of Section 6. The types of inferences postulated by Nishiyama (2006) –namely Persistence, Evidentiality, Topic Negotiation and Commonsense Entailment –were preserved in the analysis, as they were tested by means of a corpus study and were found to correctly account for most of the Modern Greek perfect uses. However, a minor modification was called for. Specifically, the proposal put forth here, incorporated elements from Portner's (2003) pragmatic analysis of the non-temporal readings of the perfect, thus resulting in expanding the category of perfect uses derived

from a Commonsense Entailment rule. This decision was also supported by the sort of discourse relations that were found to hold between the perfect sentence and the discourse topics –that were explicitly stated in the context or remained implicit in the common ground established in the course of an exchange –in a manner consistent with the requirement of increasing discourse coherence (Lascares & Asher 1993, 2008).

8. References

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9. Resources

Hellenic National Corpus. <http://hnc.ilsp.gr/>

Corpus of Modern Greek <http://web-corpora.net/GreekCorpus/search/index.php?interface>

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July 2017