On some recent views concerning the development of the Greek future system*

BRIAN D. JOSEPH and PANAYIOTIS A. PAPPAS

Abstract
Researchers of the historical grammar of Modern Greek agree in general terms that the particle θά derives from an older construction which included the verb θέλω. In the past years, however, there has been some disagreement about the exact point of departure, and, consequently, the exact route (or routes) of the development of θά. In this article we present a straightforward account of θά, explicating several of the disputed aspects of its development, and comparing our account to other, recently published, views. In this way we try to set the record straight with respect to the history of this important element of the Greek verbal system.

1. Introduction
It is often the case that the gross outlines of a diachronic development are well-recognized and generally agreed upon but the finer details remain problematic and disputed. This is especially true, it seems, when dealing with commonly occurring high-frequency elements. Modern Greek alone provides several instances of this sort, among them the following.

The ubiquitous subjunctive marker νά,¹ for example, is surely to be derived from Ancient Greek final conjunction ἵνα ‘so that’, via Post Classical ἵνά, even though the particulars of the accent shift between Ancient and Medieval Greek are not well understood (if indeed one occurred at all; see Méndez-Dosuna 2000: 279). Similarly,

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1. For the sake of consistency we use the polytonic system throughout the paper.
as discussed in Joseph (2000a; 2000b) the etymology of the independent negative utterance ὅχι ‘no; not’ is surely to be found in Ancient Greek emphatic clausal negator ὰχι ‘not’, even though the details of how the accent shifted, how the vowel of the first syllable developed, and how the function shifted, are far from clear. A similar case in point is the Modern Greek future marker θά. It has been recognised for a long time that θά has something to do historically with the verb θέλω ‘want’, but there is considerable disagreement, especially in recent years, as to just what the details of this diachronic relationship are.

In what follows, by way of clarifying several controversial aspects of the emergence of θά, we first give what we believe to be the best account of the diachrony of θά and related future tense formations based on θέλω as an auxiliary, and we then critically evaluate one other major competing proposal, that of Horrocks (1997), identifying the problems it faces, and measuring it, so to speak, against our account. In so doing, we provide some comments also on a few other accounts in the literature that are not as well-developed as Horrocks’ but which nonetheless show some problematic aspects. Our ultimate goal, therefore, is to set the record straight about this important piece of the Modern Greek verbal complex.

2. A proposal for the development of θά

We start by giving the scenario that we believe best explains how θά developed in Greek. For the most part, we follow Psichari (1884), Chatzidakis (1905), Meillet (1912), Bânescu (1915), and others who adopt their general position (e.g., Warburton & Prabhu (1975), Moser (1988), Holton (1993), Tonnet (1993), and most recently Tsangalidis

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2. θά is also used in modal constructions such as conditionals, non-factuals, and counterfactuals; even though there are interesting and important questions to be considered about the history of these uses (see section 4, and Pappas 2001b), we nonetheless refer to θά here, merely as a matter of convenience, simply as a future marker.

3. In our account we employ the verb γράφω to stand in for the schema of each construction. Thus θέλω γράφειν is the exemplar for the construction θέλω + Infinitive and so on. We back up each construction with actual examples from medieval and other relevant texts. It should also be noted that, even though we only use the imperfective form (i.e., γράφω) to illustrate the constructions, the perfective form (γράψειν) can also form the basis of a future or conditional periphrasis.
(1999) and Cheila-Markopoulou (2001), though we differ in detail from their accounts in some places.

As noted above, the ultimate source of θα is the verb of volition θέλω ‘want’, which occurred in Classical and early Post-Classical Greek as a main (lexical) verb with a complement infinitive, as exemplified in (1):

(1) θέλω γράφειν
   ‘I want to write’

   e.g., ὅτι τούτων οὐδὲν ἄν θέλοι κτάσθαι μετὰ ἀδικίας
   ‘because he would want to acquire none of these with injustice’ (Xen.
   Π.6.8)

In later post-Classical Greek, the infinitive gave way to a finite clausal replacement introduced by the subordinator ἵνα ‘that’, as in (2), a process that began in the Hellenistic period and spread through the grammar over several centuries on a construction-by-construction basis (see Joseph 1978/1990, 1983 for details and bibliography):

(2) θέλω ἵνα γράφω
   ‘I want to write’ (literally: ‘I-want that I-write’).

   e.g., θέλουσιν οἱ Ἰουδαῖοι ἵνα φονεύουσιν αὐτόν
   want/3PL the-Jews/NOM CONJN murder/3PL him/AC
   ‘The Jews want to murder him’ (literally: ‘The Jews want that (they)
   murder him’ — Act. Pil. Π.2.5 (4th c.))

This is presumably what Meillet (1912) had in mind; we differ from Meillet in that we take the more immediate source for the future prefix θα to have been a ‘redeployment’ of the infinitive with θέλω, coupled with a semantic shift from the volitional lexical main verb to a more auxiliary-like and grammatical future meaning, as in (3):

(3) θέλω γράφειν
   ‘I will write’

   e.g., τὸ πῶς ὅν θέλεις σῶρειν
   ‘how you will pull him’ (Prodrom. ΙΙΙ 390, 12th c.)

4. The example from the Acta Pilati is an early instance (perhaps the earliest; a second-century AD example from the Epistle of St. Ignatius to the Romans (8.1) cited, e.g., in Joseph 1978/1990 is open to reevaluation) of a finite infinitival replacement with main verb θέλω where the subject of the complement clause is understood as the same as the subject of θέλω.
As an independent verb at this stage θέλω still means 'want', a meaning and use that continues into present-day Greek (though not with an infinitival complement).

At this point, we follow essentially the account of Psichari (1884) and the chronology for the emergence of various future formations seen in Bănescu (1915) (see also Joseph 1978/1990, 1983), and posit a chain of developments which ultimately led to the form θά. These developments included regular sound change, reanalysis, and analogical generalization of sandhi variants, among others. The initial step was the loss of word-final -ν in the infinitive by regular sound change; this resulted in future formations as in (4):

(4) θέλω γράφει θέλει γράφει 'I will write' 'he will write'

e.g., τί τοι θέλω ποίει 'what I will do to them' (Spaneas, l. 1172)

In this construction the infinitival complement came to be homophonous with the third person singular indicative form in that both ended in -ει, phonetically [i] (thus, γράφει was both 'to write' and 'he writes'). At that point, the future formation in the third person seems to have been reanalysed as a combination of two forms each marked as third-person (as suggested by Anttila 1972/1989 and endorsed by McMahon 1994 and Harris and Campbell 1995, among others).

5. The term, used originally by Sanskrit grammarians, refers to phonetic alternants of a given word or morpheme induced by the differing environments that occur in connected speech, thus essentially alternations in the form of a word that are determined at the phrase level.

6. There are some modern dialects, e.g., Cypriot Greek, that retain final -ν, as well as some forms in the standard language, e.g., the genitive plural in -ον, that similarly show -ν#. It is likely that there have been several waves of the loss of final -ν, with interim periods in which -ν# was restored from the learned language and/or analogically reintroduced (e.g., if the loss began as a sandhi phenomenon).

7. These researchers consider this reanalysis to be the source of the loss (and ultimate replacement) of the infinitive in general, not (just) in the future constructions, but this view fails to explain the complexities of the use of να with the finite complement that replaces the infinitive in most functions. While it cannot be denied that this potential for reanalysis could have played a role in the ultimate loss of the infinitive, the overall developments with the infinitive are more complex than can be explained
(5) θέλει γράφει \rightarrow θέλει γράφει
3SG INF 3SG 3SG

From this point of departure, the formation of other persons in the paradigm seems to have resulted from a four-part analogy, essentially a process in which the speaker/hearer extracted a pattern of matching person/number marking in both pieces of the periphrasis based on the reanalysed 3rd person construction:

(6) θέλει : γράφει
3SG 3SG

⋯⋯

θέλω : X X \Rightarrow γράφω
1SG 1SG

This analogy yielded the construction seen in (7):

(7) θέλω γράφω
'I will write'

e.g., θέλουν σε ραβδίσουν, θέλουν στ' απομάθει
'They will cane you, they will make you unlearn it' (Poulol. 618)

As the example above shows, this pattern must have co-existed with the infinitival future formation of (3), since both types can be found just by reference to this chance phonological convergence (see Joseph 1983 for discussion). An especially problematic instance of this sort of analysis is the proposal of Bubenik (1996: 159):

One of the famous instances of [syntactic extension] is the loss of the infinitive in Greek (from AGr thēlo: grάphein 'I want to write' to MnGr θα γράfo). The momentum here was the loss of the final -n of the infinitive and its subsequent confusion with the 3rd Sg grάphei; hence the ambiguity of thēlo: grάphei 'I want to write' \sim 'I want, he writes'. The only unambiguous person was then thēleι грάphei 'he(x) wants [that] he(x) writes' = 'he wants to write', and it became the source of extension to other persons: thēlo: grάpho: 'I want [that] I write' = 'I want to write' (\rightarrow MnGr θα γράfo).

This last step is wholly unwarranted for several reasons: (a) when the -v#-less infinitive was reinterpreted as a 3SG finite verb, the combination of θέλω and the infinitive already had a future meaning (see (3) above); (b) θέλω + a finite verb (e.g., γράφω) juxtaposed with no connective seems never to have had a volitional meaning, but always meant future (in our account, it derives most immediately from the θέλω + infinitive future, not the volitional combination); (c) to motivate the -α- vocalism of θά, vά is needed (see Diagram 1 on p. 258), but there is no mechanism in Bubenik's account by which vά is introduced.
in the same text in Medieval Greek. Another example of this construction is attested in Andronikos, although it is harder to assess the chronology of that poem:

(8) ἄν σύρω ἐγῳ τὴν σπάθα μου καλὰ θέλω σοι ὁμόσω
'If I draw my sword, I will swear to you well' (Andron. 51)

Since the replacement of the infinitive by finite complementation, seen in (1) and (2), was an on-going process through much of Post-Classical Greek even into the Medieval period (see Joseph 1978/1990, 1983), it would have affected the renewed use of the infinitive in the future type of (3). This process thus would have given rise to an innovative type, as in (9), that was identical to (7) in meaning and similar to it in form except that it had the subordinator ἵνα, and was identical in form to (2) but with a future meaning instead, as the fuller range of examples in (10) shows:

(9) θέλω ἵνα γράφω
'I will write'

(10) a. ἵνα μοναχόν, θέλω νὰ πολεμήσω;
'Will I fight only one (person)?' (DAE 1235, 15th c.)

8. Indeed, the range of variability in the expression of the future tense in Medieval Greek texts is striking (and there are other formations that do not involve a form of θέλω that are not mentioned here). The various types described here co-occur in texts, though there is a clear chronology to the emergence of the different forms, as outlined by Bănescu (1915).

9. We would like to thank David Holton for pointing this out to us.

10. See also Joseph's discussion of the innovative use of the infinitive in Medieval Greek in temporal and circumstantial constructions (and Joseph (2001c)). These newer usages were also replaced by finite constructions rather quickly and despite their novelty.

11. Admittedly, citing the form this way here and elsewhere is somewhat anachronistic, since by the time it was introduced into the future tense formation, it was probably already simply νὰ, or perhaps more accurately unaccented να. It is glossed here, probably inadequately, as 'that'.

12. According to Browning (1983: 77) the poem of Digenes Akrites 'belongs to the tenth or eleventh century', and for Horrocks (1997: 261) the Escorial version of the epic is 'our earliest extended text in "vernacular" Greek'. The Escorial manuscript itself, however, is dated to the late fifteenth-century, and as the anonymous reviewers of this paper have observed, there is also the Grottaferata manuscript which is a late thirteenth or early fourteenth-century manuscript. Jeffreys (1993: 27) maintains that it is this manuscript that is 'one of the earliest manuscripts that contains a text in vernacular verse'.

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b. ύϊς ύπήκους γενού, ύις, να λάβης
eυχήν τὴν τῶν γονέων σου καὶ δόξαν εξ ἀνθρώπων
θέλεις εἰς τὸ Μοντόριον νὰ ἑπέλθης εἰς τὴν σκόλαν
'Become an obedient son, son, to obtain/
the blessing of your parents and glory from men/
You will go to the school in Montorion' (Phlor. 226-7,
15th c.)
c. Τὸ λοιπὸν, θέλεις νὰ μοῦ δώσεις πέντε φορὲς σαράντα
'So, you will give me five times forty' (Kart. 1528)
d. θέλει νὰ ἀνοίξει η γῆς
'The ground will open up' (Anon. 1629)

From the future types of (7) and (9) yet another type developed with
an invariant third person singular form θέλει, either with no
subordinator from (7), as in (11), or, as in (12), with the subordinator
νὰ from ἵνα of (9) (by regular sound changes). This change presumably
was motivated by pressure to eliminate redundant person marking
between θέλω as an auxiliary and the main verb it occurred with,
and perhaps under some pressure as well from other futures with
impersonal auxiliaries such as μέλλει. Note that θέλει as an
independent verb still meant '(s)he wants', so that the invariant θέλει
in (11) and (12) was being used impersonally, i.e., non-referentially
and purely grammatically. This impersonal construction with νὰ is
the most proximate source of the modern θὰ construction:

(11) θέλει γράφω
'I will write'
e.g., καταραμένος θέλει εἰσαὶ εἰς τὴ χώρα
'you will be cursed in the land' (Kyriak. 1759)
(12) θέλει νὰ γράφω
'I will write'
e.g., ἅν δὲ φανῆς, καλόγρια θέλ᾽ νὰ γένω
'If you do not appear, I will become a nun' (Tzartzanos 1946: II 155,
19th c.)

13. How μέλλει arose from personal μέλλω is a different question, though possibly
the tendency for impersonals to be used for epistemics (Horrocks 1997: 307) played a
role here. Nonetheless, it seems clear that impersonal μέλλει is older than the impersonal
use of θέλει (see, for instance, Horrocks 1997: 307, with an example from the early
16th cent, thus before Tonnet's early example of impersonal θέλει in the future).
The question of attestation for the type of (11) and (12) is not completely straightforward, so that their chronological placement is actually a bit difficult. Still, we present the examples above, but note here that there are only a few examples of the θέλει γράφω construction; furthermore, the earliest example we found of θέλει νά γράφω comes from a collection of folk songs recorded only in the 19th century, though we note that Tonnet (1993: 125) states that examples of ‘θέλει νά et l’ancien subjonctif’, presumably the impersonal type we are interested in here, are to be found in a 1643 text by Agapios Landos, the Geponikon.14 We defer discussion of the full implications and resolution of this attestation issue for section 4.

From the type of (11) and (12), the next step, we claim, was a reduction of θέλει to θέ. This reduction may have begun as a fast speech phenomenon, first with the loss of final -ει (note θέλ’ in (12)), and then a resolution of the resulting -λ νά cluster in θέλ’ νά. Thus we differ from Meillet here in that we take the invariant impersonal 3SG form of θέλω as the most direct starting point for θέ, since θέλει is much more likely to yield truncated θέλ’ than first person singular θέλω is, given that the loss of unaccented high vowels is common in Greek;15 moreover, there are difficulties motivating the reduction in longer forms such as first person plural θέλομεν(ν) νά γράφομεν(ν). The fact that some modern dialects (e.g., Cretan, cf. Pangalos 1955: 322-324) have θέλα γράφω (or θάλα γράφω) for the future ‘I will write’ strongly suggests that the reduction went through a stage θέλ’ νά, as in (12); in particular, the α-vocalism in

14. Tonnet refers to a 1991 edition by Kostoula, a work not available to us. There are two excerpts from Agapios’ writing in the Valetas anthology, but neither of them contain any future examples.
15. The loss of unstressed non-initial high vowels occurs regularly in the Northern dialects of Modern Greek (e.g., μύτ’ for standard μύτη ‘nose’) and sporadically elsewhere in Greek as well (e.g., standard Greek περιποιτώ ‘I walk’ from earlier περιποιτό; see Newton (1972) for discussion).
θέλα/θάλα is easily motivated by assuming that νά is involved, and
the −λ− points to the involvement of a fuller form of θέλω.16

As a not unrelated aside, we note that the reduction to θέ seems
to have also affected θέλει as a main verb of volition meaning ‘wants’.
In present-day Greek, for instance, the second person singular of (non-
future) θέλες ‘you want’ has a reduced by-form θες, and reductions
with other persons and numbers have been possible earlier as well —
Simon Portius (1638) in his grammar of Greek (p. 42 in Meyer’s 1889
edition) cites θεμε for θέλουμε, θετε for θέλετε, and θεν(e) for
θέλουν(e) and Jannaris (1897: §863) gives similar forms for various
Greek dialects in the 19th century (though all of these could conceivably
have been remade based on an interpretation of θέ as a new stem for
reconstituting the paradigm).17 Moreover, some instances of θέ in
the future have properties associated with the fuller forms. In (13a), for
instance, the meaning of reduced θέ is volitional (so Kriaras (1980,
s.v. θέλω) from which this example is taken), while in (13b) the
appearance of the weak pronoun τη to the left of θέ is a clear indication
that this is θέ standing for personal θέλει with an infinitive, since

16. A similar conclusion can be drawn from the forms given by Girolamo Germano
(1622) in his grammar (p. 81 in Pernot’s 1907 edition). He notes futures with a first
member θέν (e.g., θέν πάγω ‘I will go’), and forms (which he says are proper to
Chios) with a first member θέλ (e.g., θέλ άγαπήσω ‘I will love’), suggesting the
availability of a fuller form of θέλω in the future as well as the use of νά with some
form of the verb. Putting those together to infer a starting point θέλει νά is thus not
unreasonable.

17. This is the phenomenon known as ‘Watkins’ Law’, wherein a third person form
is taken as an unmarked bare root form and thus the starting point for re-creating a
paradigm (see Watkins 1962, Arlott 1972 for discussion). The absence of a reduced
first person form **θέω, we feel, is due to the general absence of first person verbs
with such a vowel sequence in Greek at that time (though −σω becomes possible later
on, as in ποτέω ‘I ask’). We thus see the reduced forms as resulting from a Watkins’
Law reconstitution of the paradigm, rather than a direct reduction of −α−VOWEL to
−ε−VOWEL, but the starting point for a Watkins’ Law paradigm re-creation would
have to have been a phonologically based reduction in the third person singular (and
regarding the possible direct loss of word-medial −λ−, note current fast speech forms
such as [ˈmaista] for μάλιστα ‘certainly!’).
that is a future pattern that regularly allows such a placement of the pronoun:  

(13) a. τὰ θὲ νὰ πῶ πρωτύτερα πρέπει νὰ τὰ λογιάσω  
   '(things) which I intend to say, first I should think them  
   (through)'  
   (Sacr. Abr: 577, 17th c.)  

b. ὄντε τῇ θὲ ζητήξει  
   'when he will ask for her' (Phalier. 160, 15th c.)

By whatever route, however, the reduction process resulted in the future patterns seen in (14):

(14) a. θὲ γράψω  
   'I will write'  
   θὲ μοῦ τὸ σοκύσουν  
   'they will break it on me' (Pop. Carm. #565b 1.3, 19th c.)  

b. θὲ νὰ γράψω  
   'I will write'  
   καὶ σὺ θὲ νὰ ἔχεις κίνδυνο  
   'And you will be in danger too' (Ambates 1779, 17th c.)  

The former construction, (14a), is not well-attested although several examples exist and the type is cited by Germano (1622, in Pernot 1907: 81) and by Simon Portius (1638, in Meyer 1889: 33).  

Further developments from the formation in (14) led to the

18. As observed in Mackridge (1993), Horrocks (1997: 208-212), and Pappas (2001a) weak object pronouns of Later Medieval Greek must appear adjacent to the verb that selects them. Thus, θὲ in example (13b) must be a fully functional verb. We would like to emphasize here that the pronoun τὰ in (13a) is a relative pronoun, not a personal pronoun, and that its presence in this example is completely orthogonal to our argument. We follow Kriaras in interpreting θὲ in (13a) as volitional.

19. This future type is not mentioned, however, in the 1555 grammar of Sophianos (see Papadopoulos 1977); rather, only the θέλω γράφειν type is for most verbs, though for the verb 'to be' (only), the doubly inflected type (θέλω γράφω) is given as an alternative in the singular (e.g., θέλω ἐἰμι 'I will be').

20. Ultimately, ἃ comes to be phonetically unaccented in Modern Greek (orthographic considerations prior to the monotonic spelling system notwithstanding). The accentual developments that led to this unaccentual ἃ are unclear in terms of their chronology and exact nature, but are irrelevant to the account introduced here.
widespread modern form θά. In particular, θὲ νὰ γράφω of (14) underwent an irregular vowel assimilation, giving θά να γράφω (as seen also in Ἀλαξάνδρεια for Ἀλεξάνδρεια in Pop. Carm.: #281, and thus not an unprecedented change, even if irregular). Here it is relevant that some modern dialects have θάλα γράφω (as noted above). To get from θὲ νὰ γράφω to θά γράφω, it is safest to assume that a variant of θα νά before a vowel-initial verb, such as ἀγοράζω ‘I buy’, had the form θά ν, and that this pre-vocalic variant (‘sandhi alternant’) was generalized to pre-consonantal position, giving θὰ ν γράφω. In this way, no further irregular phonological developments need to be assumed, since contraction of –α # α– (i.e., across a word-boundary) to –α is regular in Greek. By a similar process, this variant θά ν could have yielded θα in all contexts — the loss of –ν– in θὰ ν γράφω would be regular, and the resulting pre-consonantal θά could then have spread analogically to pre-vocalic contexts, giving forms such as θά ἀγοράζω ‘I will buy’ alongside θά γράφω.

21. In certain frameworks for discussing grammatical change (e.g., Hopper and Traugott (1993)) θά would be considered the end point of the ‘grammaticalization’ of the Modern Greek future (see also Tsangalidis 1999), where ‘grammaticalization’ is defined as the development of greater grammatical status for a given element. As argued in Joseph (2001a, 2001b), it is not clear that θά qualifies as ‘more’ grammatical in any significant way than the earlier invariant and non-paradigmatic frozen form θέλει (which was itself fixed positionally and could not support weak pronouns; see Joseph 1978/1990: 143-145). Although θά is certainly phonologically reduced, phonological reduction and grammatical status are independent phenomena, as shown by the fact that some Medieval instances of reduced θὲ have main-verb-like uses and properties (see (13) above).

22. A suggestion of the originally phonological basis of the variation between θά and θάν comes from the observation of Germano (1622, in Pernot 1907: 81) that the variation between θὲ and θὲν depends on the following sound: θὲν before a vowel- or p-initial word and θὲ before a consonant-initial word.

23. A trace of –ν is found in the synchronically irregular voicing of initial stop of weak 3rd person object pronouns, e.g., θὸν τὸ γράφω‘I will write it’→ optionally [θαν do ‘γράφω], where a voiced stop is a possible outcome of a nasal-plus-voiceless stop combination. This voicing of the pronoun is found in some dialects/registers into the twentieth century (see Householder, Kazazis and Koutsoudas 1964: 82).

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Diagram (1) summarizes our view of the development from θέλω γράφειν to θά γράφω:

- θέλω γράφειν
- loss of -ν,
- reanalysis

| θέλω γράφω | elimination of redundant person marking |

| θέλει γράφω | reduction of θέλει |

| θε γράφω | vowel assimilation, generalization of pre-vocalic sandhi variant, analogical spread |


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24. The dotted lines indicate what we believe to be an extraordinary change, taking the form in a different direction (as if acting on a replica — or clone — of the original) from what the usual mechanisms of sound change, analogical spread and so forth would have produced.
It is important to note here that we do not assume any formal links between the forms in the two columns; they are taken to be similar yet independent developments.\(^{25}\)

It is therefore possible to motivate all of the stages by which θέλω γράφειν could have yielded, through the crucial intermediary stage of θέλω (νά γράφω, the Modern Greek future θά γράφω. Moreover, all of the necessary stages are directly attested, although the chronological order of these attestations does not directly correspond with the sequence of stages as we have proposed (on which, see below). Significantly, all of these steps involve, for the most part, perfectly ordinary and well-understood processes in language change: sound change, reduction of redundancy, and (analogical) generalization of one variant at the expense of another.

3. The proposal of Horrocks (1997)
As noted at the outset, Horrocks (1997: 230ff.) has a very different view of the emergence of θά, though the differences focus on the starting point more than on the later stages. For him, the development starts with the use of the subjunctive\(^ {26}\) with νά as a future tense in and of itself; he gives an early example from early Post-Classical Greek:

(15) ἐὰν γὰρ μάθω, ἵνα αὐτῷ συντύξω
if for learn/1SG SUBJUNC him/DAT talk/1SG
‘For if I learn, I will talk to him’ (Lausiac History, 1113b 4th c. AD)

He then sees the starting point for θά itself as arising out of the ‘strengthening’ of this future use of νά plus subjunctive by “the prefixation of θε [θε] a reduced form of 3rd sg. θέλει [θελ] ‘it will

\(^{25}\) That is to say, the θέλω νά γράφω type is not derived by somehow ‘adding’ νά to the θέλω γράφω type (as an account such as Bubenik’s — see footnote 7 — might lead one to believe).

\(^{26}\) This view was first supported by Jannaris (1897: Appendix vi) who also believed that the θέλω γράφειν forms were archaizing formations reconstructed from the subjunctive.
be (that)’, used impersonally’ (p. 231); at that point, with a newly reconstituted future of θε να + subjunctive, he invokes the steps outlined above (after (14), and see Diagram 1, though without mention of analogical spread of sandhi variants). Horrocks was no doubt guided in part by his belief that the apparent full form θέλω (ι)να plus subjunctive, as assumed by Meillet, has only a volitive sense in Medieval Greek. In particular, concerning the future, he says: “As far as futurity is concerned, the θέλω [θelο] + infinitive periphrasis [is] systematically distinguished from the volitive θέλω [θelο] + να [na] construction” (p. 231), and later concerning the impersonal construction he notes that the impersonal θέλει with να + subjunctive future “is again systematically distinguished from the personal volitive construction involving θέλω να [θelο na]” (p. 232).

Horrocks concludes by explaining the θέλει γράφω constructions essentially as the result of conflation between θε να γράφω and θέλω γράφω. His proposal is summarized by Diagram 2.

27. Somewhat curiously, on p. 307, Horrocks seems to articulate a view of the development of the θε να γράφω future that is much closer to what we advocate here, saying the following with regard to an example of μελετει να + finite verb as a future in Medieval Cypriot:

[It is] a medieval Cypriot variant of the later and more usual θε να [θε na] (cf. modern Cypriot εννα [εν’na] = θέλει να [θελ’na]). The tendency for modal verbs with epistemic force to assume an impersonal form (cf. μπορει να [bo’ri na] ‘it is possible that’, and πρεπει να [prepi na] ‘it is necessary that’), points strongly to the hypothesis that θε [θε] too reflects an impersonal construction based on a reduction of θέλει [θελει] (cf. Joseph (1990: 114-15).

While we of course welcome this endorsement, we feel that the ‘strengthening’ account still needs to be countered, both because it is proposed also in Jannaris (1897) and because the primary discussion of the future by Horrocks (pp. 229-232) adopts it. Moreover, other assumptions that are connected with the strengthening account, e.g., that there was no θέλω να γράφω future, need to be re-evaluated and rejected, as we argue below.

28. We are not in total agreement with Horrocks’ assessment that θέλει γράφω is an Ionian development in the way portrayed in the diagram. A brief perusal of Valetas’ anthology provides examples from Istanbul and Chios as well as from Kephalonia and Zakynthos, indicating that the construction was more widespread. Furthermore, the texts from the Ionian islands do not show extended use of the θε να construction, thus making it hard to see how exactly the conflation may have occurred between θε να γράφω and θέλω γράφω to yield θέλει γράφω.
4. Assessment of the two proposals

It should be clear from the previous discussion and the diagrams that our proposal differs from that of Horrocks on a few points concerning both matters of data and their analysis. The first point of disagreement is whether or not the construction θέλω νά γράφω could denote the future. Horrocks emphasizes that it does not. However, as we already stated above, there are several examples of such a use of the construction throughout Medieval Greek texts of the fifteenth, sixteenth and seventeenth centuries, and the construction is even attested in Digenes Akrites. Although their number is indeed small when compared to the θέλω γράφειν construction, it is indisputable, we assert, that θέλω νά γράφω was used as a future, for the examples presented above, (10a-d) (repeated here for ease of reference), allow for no other interpretation.29

29. In the appendix we present some more examples (not an exhaustive list to be sure) whose interpretation is a little more vague, along with the reasons for which we consider them to be futures.
(10) a. ἔναν μοναχόν, θέλω νὰ πολεμήσω;
   'Will I fight only one (person),'# (DAE 1235, 12th c.)

b. υὸς ὑπήκοος γενοῦ, υἱὲ, νὰ λάβῃς
   εὐχὴν τῇν τῶν γονέων σου καὶ δόξαν ἐξ ἀνθρώπων
   θέλεις εἰς τὸ Μοντόριον νὰ ἑρήμης ἐν τῇν σκόλαν
   'Become an obedient son, son, to obtain/
   the blessing of your parents and glory from men/
   You will go to the school in Montorion' (Phlor. 226-7, 15th c.)

c. Ῥὸ λοιπὸν, θέλεις νὰ μοῦ δώσεις πέντε φορὲς σαράντα
   'So, you will give me five times forty' (Kart. 1528)

d. θέλει νὰ ἀνοίξει ἡ γῆς
   'The ground will open up' (Anon. 1629)

Moreover, other scholars have come up with similar instances; Holton (1993: 123), for instance, cites two examples from the Sacrifice of Abraham.

The second point concerns the form θέ, which is in fact the most robustly attested, and structurally closest, predecessor of θά. The emergence of this form is indeed problematic for both accounts. Horrocks does not really discuss how θέ came about, and in particular why speakers would choose it and not some other monosyllabic form as part of what he sees as the 'strengthening' of the νὰ + subjunctive construction. This is an especially troubling point if one considers that Horrocks himself points to the existence of other impersonal constructions such as πρέπει νὰ 'it is necessary that' and μέλλει νὰ 'it will be that'; on the basis of the latter, one would just as readily expect a future construction such as μὲ νὰ. In this regard, the study by Aerts (1983)30 of the impersonal construction μέλλει νὰ in the Cypriot dialect becomes especially interesting, as he notes the existence of a form μελά, suggesting that some reduced form of μέλλει was available in at least some dialects, even if employed only on a limited basis. On the other hand, in our proposal, with its detailed account of how θέ was created from θέλει, the use of θέ is a natural consequence of the widespread use of θέλει.

30. We thank Marina Terkourafi for bringing this article to our attention.
Admittedly, however, this account is not completely unproblematic. If ὑὲ νὰ derives from (impersonal) ἑλει νὰ, then it must be asked why there seems to be just one example of the source (see (12) above), coming moreover from the nineteenth century, some 600 years after the first evidence of ὑὲ νὰ. Even adding in the evidence cited by Tonnet (1993: 125) from Landos’ Geoponikon of 1643, there is still a chronological gap of some 400 years, and in any case, the type is not particularly robustly attested. Equally vexing is the question of why forms such as ἑλει γράφω appear only from the sixteenth century on. Thus it appears that the account proposed here faces a chronological paradox, since we claim that ὑὲ originates from a form that is attested much later than it.

There are, however, answers to these questions. To address the second question first, we note that the constructions that do not employ νὰ should be considered independently from the constructions that do. Thus, the late appearance of ἑλει γράφω probably has more to do with the prevalence of the infinitival form ἑλω γράφειν than with any of the developments that affected the ἑλω νὰ γράφω construction. Further, though, this construction does show that depersonalization of ἑλω as an auxiliary is possible — as does the fact that an impersonal μέλλει developed out of personal μέλλω — and thus it provides evidence for an important link in the series of developments that we propose. Regarding the first question we cannot be sure how old the example cited in (12) is because even though it is attested late in writing, it does come from oral tradition folk songs, and so could in fact be a relic; in that regard, the 1643 evidence of the Geoponikon is important, for it shows that this type was part of Greek still in Medieval times. In addition, based on the small number of attested ἑλω νὰ γράφω constructions, it is quite likely that ἑλει(ει) νὰ γράφω was simply passed over quickly, and replaced by ὑὲ before it could enter the literary language. Coupled with this observation, the existence of the dialectal form ἑλα, e.g., in Cretan, as well as the ἑλ/ἡεν alternation cited by Germano (see above, section 2, fn. 16), provides a further supporting indication that there must have been a fuller form ἑλε’, presumably a truncation of the third person singular form ἑλει, which with νὰ figured in the formation of the future.
Finally, the use of impersonal θέλει να γράφω in Modern Greek, denoting necessity, is significant in this regard; thus, one can say sentences such as:

(16) "Αν μπλέχτει ή πετονιά, θέλει να την κόψεις.
    ‘If the fishing line is tangled, you must cut it.’

This particular impersonal θέλει να γράφω formation is attested from at least the previous century and may go back even further. Tzartzanos (1946: Π 153), for instance, cites the following from a collection of traditional oral narratives that were gathered in the nineteenth century:

(17) Ἡ μάννα μας εἶναι πολὺ μακριὰ θαμμένη, ἀπάνω στὸ βουνό, καὶ θέλει να κινήσουμε πολὺ ταχυνό
    ‘Our mother is buried far away, on the mountain, and we must set off very early’ (Tzartzanos (1946): Π 153)

Given its meaning, this usage is most likely connected to deontic meanings of θέλω in phrases such as:

(18) a. Τὸ φαγητὸ θέλει ἀλάτι ‘The food needs salt’
    b. Πώ πώ! τί ἔκανα; Θέλω ξύλο
       ‘Look at what I have done! I need a whupping’

Such usages permit the inference that impersonal uses of the full/main verb θέλω are possible with various specialized senses. Even if this necessity usage has not gone along the path that the future θέλει took and yielded θέ (etc.), it is still the same kind of development that in our view took place in the pre-Modern era of Greek in the creation of the future formation. Thus one can invoke here the uniformitarian principle,31 which states that the principles that operated in the past can be inferred by observing ongoing processes in the present, and assert that if θέλω can become impersonal in the Modern Greek deontic construction then a parallel development also could have taken place during the development of the future construction in the twelfth century, much as personal μέλλω yielded impersonal μέλλει.

31. This principle has a long history within linguistics (and other sciences), as discussed in Janda & Joseph (2002); the formulation given here is based on Hock (1986) and Labov (1994).
For these reasons, the scenario for the development of future ὧα espoused by Psichari (1884), Meillet (1912), and Bănescu (1915), and embellished herein with regard to some matters of detail, provides a better account of ὧα by linking it to θέλω νὰ γράφω as a future and by extension back to the θέλω γράφειν type, than do the views of Jannaris (1897) and Horrocks (1997), who seek to explain ὧα as the result of strengthening the future-denoting νὰ γράφω with θέ.

5. The development of ὧα as used in the counterfactuals

Finally, by way of further setting the record straight, we endorse the sequence of changes set out in section 1, but add the following: most accounts of the future, via whatever path, assume parallelism between the future, built with a present form of θέλω, and the periphrastic conditional/counterfactual, built with a past form and an infinitive or finite verb, e.g., ἡθελα γράφειν/ἡθελα γράφω, as the ultimate source of Modern Greek ὧα ἔγραφα ‘I would write’, the so-called conditional formed with ὧα plus imperfect (i.e., imperfective past tense). From a structural point of view, virtually the same range of formations with the past form ἡθελα in the conditional is found as with the present-tense form of θέλω in the future, as shown in (19), though there are a few formations that do not match up.32 Thus it is usually assumed that each type, present/future and past/conditional, developed in roughly the same way. Joseph (1978/1990) is a case in point where that assumption is explicitly made.

(19) Counterfactual           Future
    ἡθελα γράφειν(ν)         θέλω γράφειν(ν)
    ἡθελα γράφω              θέλω γράφω
    ἡθελα (ὁ)να γράφω        θέλω (ὁ)να γράφω
    ἡθελε γράφω              θέλει γράφω

32. For instance, the fact that a past tense form is involved means that there is the possibility for tense agreement or disagreement (giving, e.g., ἡθελα ἔγραφα or ἡθελα γράφω) between the auxiliary verb and the main verb, something not possible in the future formation with only a present tense auxiliary form. Note also that ἡθελα ἔγραφα conceivably could represent in some instances a (presumably phonological) reduction of the ἡθελα νὰ ἔγραφα type (with a development of –λε να– parallel to that seen in Cretan θέλω from θέλει να, though admittedly with a different vowel).
However, as noted in Diagram 3 below, there is no direct way of getting from an ηθελα γράφει (ν) conditional, with inflected first member and infinitival second member, to the modern θε γράφω, with invariant reduced θε and an inflected second member in the imperfective past tense. This is so simply because the v-less infinitive (γράφει) could not be reanalysed as an inflected 3sg imperfect past form (γραφε), in the same way as it was reanalysed in the development of the future (see also diagram 1). Furthermore, the form θε, a crucial part of the series of changes that led to θε under any account, cannot be derived in any non-ad hoc way as a reduction from the fuller form ηθελα in the same way that it was derivable from θελε in the future. There is thus no easy way to explain how a form θε could have emerged as an alternant of ηθελε.

Diagram 3. Impossibility of reduction and reanalysis occurring in counterfactual constructions.

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33. That is, θε figures in the development of θε in both Horrocks’ ‘strengthening’ account and the one advocated here.
34. A reduced form θε does occur (cited by Germano (1622, p. 99 in 1907)), but given that the initial vowel is accented, it is hard to see how it could develop into a reduced form θε directly or regularly.
Pappas (1999, 2001b), reporting on a quantitative study of the occurrence and behaviour of the ἄθελα constructions in early Modern Greek (roughly late sixteenth century to mid-nineteenth century), based mainly on Cretan drama and the prose anthology of Valetas (1949), found that there are various ways in which the θέλω futures and the ἄθελα counterfactuals are not mirror-images of one another in their development, both as to their chronological emergence and to their behaviour with regard to negation. In particular, the ἄθελα γράφων constructions are not sensitive to whether they are affirmative or negative, whereas θέλω γράφω constructions are. That is, there is a period in early Modern Greek where θέλω γράφω constructions are heavily favoured among variants in negative sentences. The distribution of counterfactual variants for the same period is not affected by sentence polarity.

Moreover, θὰ ἔγραφα constructions are completely absent from the corpus of Cretan drama whereas θὰ γράφω is the predominant variant of future denoting constructions. This striking fact together with the results of the quantificational study in the prose corpus, which shows that θὰ ἔγραφα constructions emerged at a later point in time than the θὰ γράφω future construction, strongly suggests that the θὰ ἔγραφα constructions followed a different path of development from their future counterparts. In particular, then, impersonal ήθελε νὰ γράφω is not a likely source of θὰ ἔγραφα, even though θέλει νὰ γράφω was for the θὰ γράφω future; rather, at some point, at the very least, there must have been a reinterpretation of the relationship of the tenses found in the two parts of the counterfactual, perhaps based on the tense agreement ostensible in the θέλω/θέλει νὰ γράφω future, so that a formation equivalent to ήθελα/ήθελε νὰ ἔγραφα could arise.\(^{35}\)

35. That is, the emergence of the θὰ ἔγραφα type can be seen as resulting from a four-part (proportional) analogy, schematizable as follows:

\[
\begin{array}{ccc}
\text{θέλω/θέλει} & \text{νὰ γράφω} & \vdots & \text{ήθελα/ήθελε} & \text{νὰ ἔγραφα} \\
\text{TENSE}_x (\text{PRES}) & \text{TENSE}_x (\text{PRES}) & \vdots & \text{TENSE}_{\text{PST}}; & X, X \rightarrow \text{TENSE}_{\text{PST}}
\end{array}
\]

A further step would involve the entrance of θὲ into the counterfactual, not as a reduction of ήθελε, but 'imported', so to speak, from the future (owing in part to the semantic and formal closeness of future and counterfactual).
6. Conclusion

It is clear that the development of the future in Medieval and Modern Greek forms a crucial instance of the ways in which the later language differs from Ancient Greek. Our main goal here has been to provide a corrective to some of the claims that have been made regarding this development, e.g., by Jannaris and Horrocks, and to reaffirm, with some slight embellishments, what might be viewed as the 'conventional wisdom' concerning their emergence, that is essentially the views of Psichari and Meillet, and others following them. At the same time, though, the Modern Greek future presents an interesting case study for historical linguistics as well. Thus, besides what we have said about the account of Jannaris and Horrocks, we provide in addition some correctives to aspects found in the accounts of Anttila, Bubenik, Campbell & Harris, Hopper & Traugott, and McMahon.

This is not to say that all questions concerning these developments have been solved. The fluidity of the various constructions in their appearance in Medieval and early Modern texts, and even into twentieth-century dialectal use is somewhat unsettling, and there are aspects of their chronology in these texts that are not exactly as our account would predict. Furthermore, there are similar developments in other languages of the Balkans that are strikingly reminiscent of the range of facts found in Greek, but the exact relationship between Greek and these other languages is not entirely clear in this matter. Thus without closing the book on the Greek future, we hope nonetheless to have shed a bit more light on this otherwise still somewhat dimly illuminated area of Greek historical grammar.

Brian D. Joseph,
The Ohio State University, Department of Linguistics
joseph.1@osu.edu

Panayiotis A. Pappas,
Department of Linguistics, Simon Fraser University
pappas@ling.ohio-state.edu
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Appendix

Given the fact that there is some controversy over the status of the θέλω νὰ γράψω future, despite the examples given in Holton (1993), we present here, going beyond what was given in (10), a number of other instances of this construction that in our view are more likely to be futures than volitives and thus further support the claim that the θέλω νὰ γράψω future was a real type. In this first passage, two examples are to be found:

(20) θέλει ή ψυχή μου νά βγήκη
άπεσα απ’ το κοινό μου, άπ’ τα σωτικά μου
και δε’ αύτό συγκάπτω τα, θέλω να πω άλλ’ όλιγα.
‘my soul will exit from my body, from my chest so I make it short, I will say something else’ (Threnos 673-75, 15th c.).

Regarding (20), it can first be noted that in present-day Greek the idiom θὰ βγεῖ ή ψυχή μου, only exists as a future construction and not in the volitional θέλει νὰ βγεῖ ή ψυχή μου, suggesting that θέλει ή ψυχή μου νά βγήκη above is future. Moreover, the meaning of these three lines is such that θέλω να πω άλλ’ όλιγα must also be future, since the writer makes it clear that he is forced to stop and change subject because of the emotional distress that his recounting is causing him.

The following examples, (21)-(24), are all from the Chronicle of Morea where we find similar phrases framing a break, either a pause or a resumption, in the narration, and using the θέλω νὰ γράψω construction in what appears to be a future and not a volitional meaning. Especially telling is the fact that the clearly future θέλω γράψειν construction occurs in a phrase with the same discourse function, as indicated in (24):

(21) 'Εν τούτῳ θέλω ἀπὸ τοῦ νῦν νὰ πάψω ἔφο δύνατον
‘About this I will stop here a little now’ (Chron. Mor. H 3143, 14th c.)

(22) καὶ θέλω να σε δοκηθήσῃ περὶ τοῦ βασιλέως
‘And I will narrate to you about the king’ (Chron. Mor. H 3145, 14th c.)

(23) Τώρα θέλω να σάς πκο
‘Now I will tell you’ (Chron. Mor. P 3174, 15th c.)

(24) 'Εν τούτῳ θέλω πάψει ἐφό
‘About this I will stop here’ (Chron. Mor. H 3173, 14th c.)

The final two examples show coordination of infinitives and finite complements, both of which we read as future constructions with θέλω. We acknowledge that what we call the finite complement (underlined) of (25) may indeed be a future with the bare subjunctive (headed by να) as proposed by Horrocks, although we are inclined toward the complement interpretation in these instances.

(25) θέλεις να παντοδύναμος θελεὶ σάς δύων χάριν
to πνεύμα το πανάγιον καὶ να σάς ἐφωτίσῃ
‘God almighty will give you grace/the holy spirit and will enlighten you’ (Threnos 472-73, 15th c.)

(26) Διατεινάς θέλεις πιστεύσῃ τινάς ἃ νὰ ὑπακούσῃ ἐκεῖνα ὅποι
λέγονται, ἐὰν δὲ γροῦκα;
‘For how will one believe or obey that which is said, if he does not listen?’
(Kallidupa. 1634)

Interestingly, examples such as these are reminiscent of constructions from the Hellenistic period in which one of the two conjoined complements of a verb is an infinitive and the other a finite clause introduced by ἢνα, such as (27), from the New Testament (see Joseph 1978/1990):

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(27) θέλω δὲ πάντας ὑμᾶς λαλεῖν γλώσσας μᾶλλον δὲ ἵνα προφητεύετε
'I want you all to speak in tongues or rather to prophesy' (1 Cor. 14.5)

The θέλω construction here is the volitive and takes two complements, one infinitival (λαλεῖν) and one finite (ἵνα προφητεύετε), and is considered by Joseph to give an indication of how the replacement of infinitive complements by finite complements spread through the language. The examples in (25) and (26), showing the same kind of interchangeability between the two types of complements in the novel future construction, may also be an indication of how the θέλω γράφων construction eventually led to θέλω νά γράφω, e.g., first in conjoined structures and then elsewhere, and serve as a reminder of how the various types could compete with one another in one and the same line and text (as in (7) above).

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