The Decline of the Aorist Infinitive in Ancient Greek Declarative Infinitive Clauses

*Jerneja Kavčič**

University of Ljubljana

jerneja.kavcic@ff.uni-lj.si

Abstract

It seems established that infinitives used in declarative infinitive clauses (DeclarInfCl) convey relative temporality in Classical Greek, with the aorist infinitive referring to anteriority, the present infinitive to simultaneity, and the future infinitive to posteriority. In Hellenistic/Roman Greek and in Early Byzantine Greek, by comparison, DeclarInfCl do not display the same variety of infinitive forms. These periods appear to avoid the aorist infinitive while manifesting a very common use of perfect infinitives and stative present infinitives in DeclarInfCl. These tendencies stand in a complex relation to other developments in the post-Classical period. This paper accounts for what appears to be the decline of the aorist infinitive in DeclarInfCl, claiming that this phenomenon is most likely related to the perfect infinitive adopting the function of conveying anteriority in DeclarInfCl.

Keywords

infinitive – aorist – perfect – aspect – tense

1 Introduction

This paper discusses a development that affected Ancient Greek declarative infinitive clauses (DeclarInfCl). This is a common term in Greek grammars and goes back to Kurzová (1968). A DeclarInfCl is dependent on verbs of saying and

* For helpful advice and discussion of previous versions of the paper I thank the referees and

thinking, and “represents a statement or thought of the subject of the main verb concerning some state of affairs in the ‘real’ world” (Rijksbaron 2006: 97). It is distinguished from the so-called dynamic infinitive, which is posterior to the main clause and refers to the state of affairs that exists “δυνάμει ‘potentially’” (loc. cit.). An example of a DeclarInfCl is:

- (1) δν αὐτός φησι πατέρα αὐτοῦ εἶναι
 whom he say.3SG.PRES father.ACC of.him be.PRES.INF
 ‘of whom he says that he is his father’ (Lys. 13.91.)

It seems that, in the post-Classical period, DeclarInfCl underwent significant changes concerning their aspectual and temporal properties. The aorist infinitive—my focus here—offers a particularly interesting development. There are reasons to believe that its use in the declarative infinitive construction steadily declined in the post-Classical period. This observation goes back to such early works as Burton (1898), who draws attention to this phenomenon in the New Testament (NT). In addition, the aorist infinitive appears to be avoided in this construction, in that it occurs in the non-literary papyri contemporary with the NT (Kavčič Forthcoming a).

My first aim is to provide additional evidence for the decline of the aorist infinitive in DeclarInfCl. Second, I seek to explain this phenomenon as it is an issue that has not been explicitly addressed in the aforementioned studies dealing with DeclarInfCl in the post-Classical period. This seems to be a particularly intricate task because the decline of the aorist infinitive in DeclarInfCl could be related to more than one process that took place in this period, including phonological changes, the retreat of the synthetic perfect and future tenses, and the retreat of the infinitive in general.

It is assumed that the phenomenon examined cannot be properly accounted for without addressing the elementary issue of whether Ancient Greek verb stems encode aspect or tense.¹ This issue remains open, but is addressed briefly in Section 2, which summarizes previous findings concerning DeclarInfCl in Classical and in Hellenistic/Roman Greek. Section 3 adds further evidence in their support, and Section 4 attempts to account for the decline of the aorist

Brian Joseph. I would also like to express my sincere thanks to the Alexandros S. Onassis Public Benefit Foundation, as its financial support made the preparation of this paper possible.

1 The term *Ancient Greek* is to be distinguished from the term *Classical Greek*. The latter refers to the Greek of the fifth and the fourth centuries BC, whereas the former is a broader term. It subsumes the Classical period, in addition to earlier periods (e.g., Homer) and the Hellenistic/Roman period (3rd century BC–4th century AD).

infinitive in DeclarInfCl. First, it examines whether this decline is related to the phonological processes (4.1) that took place in Hellenistic/Roman Greek and to the process of the infinitive disappearing (4.2). The latter section provides two hypotheses concerning the decline of the aorist infinitive in DeclarInfCl. Section 5 then draws attention to the semantics of the perfect in the post-Classical period (5.1), leading to an additional hypothesis concerning the phenomenon examined (5.2; revisiting Kavčič Forthcoming b). Finally, in section 6, these hypotheses are examined in terms of diachronic tendencies concerning frequencies of the present, the aorist, and the perfect infinitive in DeclarInfCl.

2 Aspect/Tense in Ancient Greek DeclarInfCl

It is clear that Ancient Greek clearly displays cases of DeclarInfCl conveying temporal distinctions and that the aorist infinitive conveyed anteriority.² Thus the present infinitive in passage (1) refers to simultaneity. An example of a DeclarInfCl containing an aorist infinitive and referring to anteriority is passage (2), whereas in passage (3) the future infinitive refers to posteriority.

- (2) ἃ φησι δρᾶσαι αὐτὸν Ἡσίοδος
 what.ACC.PL say.3SG.PRES do.AOR.INF him.ACC Hesiod
 ‘what Hesiod says that he had done’ (Plato, *Resp.* 277e8)

- (3) ἐγὼ δ’ ἡγοῦμαι βέλτιστα σε πράξειν
 I but think.1SG.PRES best.ADV you.ACC do.FUT.INF
 ‘But I think that you will do it best.’ (Isoc. 12.249)

Ancient Greek also had the perfect infinitive. However, DeclarInfCl containing the perfect infinitive were rare in the Classical period, according to Rijksbaron (2006: 98). An example is given in (4):

- (4) πάντες δὲ ᾤοντο ἀπολωλέναι ὡς
 all.NOM.PL PTCL think.3PL.IMPERF destroy.PERF.INF because
 ἐαλωκυίας τῆς πόλεως
 be.seized.PTCP.GEN ART.GEN town.GEN
 ‘They all thought that they were destroyed because the town was captured.’ (X., *HG* 7.1.19)

2 Compare Rijksbaron (loc. cit.) and Duhoux (2000: 275).

In this case, the DeclarInfCl expresses a current state that concerns the subject of DeclarInfCl (namely, the inhabitants of Byzantium, who believe that they are destroyed), in addition to a completed anterior event (i.e., the inhabitants having been destroyed because their town was seized). The semantics of the Ancient Greek perfect has been a frequently discussed issue, and it appears widely accepted that, originally, the notion of a state was more prominent in cases such as (4) above than the notion of an anterior event; in addition, this state primarily concerned the subject (see Haspelmath 1992: 191–201; Haug 2004: 396; Bentein 2012a: 176; among others). This perfect is usually called the “resultative perfect” and should be distinguished from the so-called “anterior perfect,”³ which emphasizes the anterior event, whereas the state it refers to should be understood in a “loose sense” (cf. Haug 2004: 301). The anterior perfect is usually described as the perfect referring to an anterior event with current relevance (Bybee & Dahl 1989: 55; Haspelmath 1992: 190; Haug 2008: 293; Bentein 2012b: 206).⁴ It is important to stress that the anterior perfect already appears to be attested in the Classical period and also in DeclarInfCl.⁵ An example is as follows:

- (5) καίτοι τί αὐτόν οἶσθε πεποιημέναι περὶ
indeed what him.ACC think.2PL.PRES do.PERF.INF about
ὧν οὐδεὶς αὐτῷ σύνοιδεν ἀλλ’ αὐτὸς μόνος
what.GEN.PL noone he.DAT know.3SG.PLPF but he.himself alone
διεχέριζεν
act.3SG.IMPERF
‘Now what do you think he has done in cases that no one knew about and when he acted entirely on his own?’ (Lys., 32.27)

3 The term *resultative perfect* as adopted here does not entirely correspond to the traditional concept of the resultative perfect as understood in major studies on the history of the perfect in Greek (Chantraine 1927; Wackernagel 1904). According to this traditional view, the resultative perfect emphasizes the state of the object and is to be distinguished from the “stative” perfect, which emphasizes the state of the subject; compare Rijksbaron (2006: 37). In addition, the traditional approach does not distinguish between the resultative and anterior perfect.

4 Compare also Bentein (2012a: 178–181), who gives a list of subcategories of the anterior and the resultative perfect and Greek examples. The term *perfect* can be used instead of the term *anterior perfect*. An example is Comrie (1981: 52), who defines the “perfect” as follows: “More generally, the perfect indicates the continuing present relevance of a past situation.”

5 See Haspelmath (1992: 209), Haug (2008: 302), and Slings (1994: 244).

The focus here is clearly on past events rather than on any subsequent state. The context shows that the speaker is referring to a series of completed past actions that are referred to with two past-tense forms: with the imperfect *διεχειρίζεν* ‘he was acting’ and with the past perfect *σύννοιδεν* ‘was aware’. It can also be claimed that these events have a current relevance, accounting for why they are being discussed in the court. In addition, the relevance of these events is shown by the fact that (5) is followed by testimonies supporting the speaker’s claims about them (cf. Lys. 32.27–28). Moreover, there is an important semantic difference between the subjects of the DeclarInfCl in (4) and (5). Although both perfect infinitives are active, the subject of the DeclarInfCl is a patient in (4) and an agent in (5). This is one of the basic distinctions between the resultative and anterior perfect: whereas the latter is patient-oriented, the former is agent-oriented (Haspelmath 1992: 209–215).⁶

It is also believed that, in diachronic terms, the perfect could eventually express anterior events without containing any reference to the subsequent state of affairs, thus functionally merging with the aorist. This development appears to concern (primarily) the Hellenistic/Roman and Early Byzantine period and is discussed in greater detail in Section 5.1.

These temporal properties of DeclarInfCl are expected if it is assumed that Ancient Greek verb stems encoded relative tense (hereafter: tense) rather than aspect. It seems established that this is the case with the synthetic future, which is why the future infinitive refers to posteriority in DeclarInfCl. However, it remains open whether other verb stems (the present and the aorist) were temporal or aspectual. Although it is often claimed that they encode aspect, this view is “untenable” according to Rijksbaron (2006: 2).⁷ It is clear that, in the case of the infinitive, passages such as (1–3) speak in support of its temporal value. A recent example of such a view is Fykias and Katsikadeli (2013: 39), who claim that “[Ancient Greek] infinitives are exceptional in the sense that they can be shown to be tensed, whereas infinitives in familiar modern language are not.”⁸ However, if it is assumed that Ancient Greek verb stems—apart

6 There is also morphological evidence showing that the perfect infinitive in passage (4) is resultative rather than anterior. Namely, in the case of the verb *ἀπόλλυμι*, the anterior perfect is believed to be associated with the forms derived with the suffix *-χ* (*ἀπολώλεχα*) rather than with the original perfect forms of the type *ἀπόλωλα*; compare Haspelmath (1992: 215), Duhoux (2000: 400).

7 Compare Ruijgh (2004) and Ruijgh (1991: 204–205).

8 Nevertheless, this claim can be argued against on the basis of passages such as (18) below, which indicate that modern languages also display temporal distinctions in DeclarInfCl.

FIGURE 1 Frequencies (in %) of present, aorist, and perfect infinitives used in DeclarInfCl⁹

from the future—encode aspect rather than tense, then their temporal use in DeclarInfCl needs to be characterized as exceptional (Duhoux 2000: 282).

2.1 DeclarInfCl in Classical Greek

As I argue in Sections 5.2 and 6.3, the diachronic processes examined here can be accounted for if it is assumed that the aorist infinitive encoded aspect (rather than tense). Thus, here I draw attention to phenomena concerning DeclarInfCl in the Classical period that show its aspectual value.

2.1.1 Aspect/Tense Frequencies in Classical Greek DeclarInfCl

Kavčič (Forthcoming b) argues that the aorist infinitive was relatively infrequent in Classical Greek DeclarInfCl. Namely, statistical data show that, in most Classical authors, the frequency of the aorist infinitive in DeclarInfCl was far below that of the present infinitive in this construction. Moreover, in most Classical authors, DeclarInfCl containing the perfect infinitive were either more common than or equally common as DeclarInfCl containing the aorist infinitive. These relations between the present, the aorist, and the perfect infinitive in Classical Greek DeclarInfCl are shown in Figure 1.

Arguably, this situation contrasts with that seen in the language as a whole. Duhoux (2000: 155–156) shows that, in Classical Greek, the perfect and the

9 The Classical authors examined are arranged in chronological order. The texts examined include: Homer, *Iliad* 1–6; Herodotus VII; Sophocles, *Antigone*, *Women of Trachis*, *Philoctetes*, *Oedipus at Colonus*, *Ajax*, *Electra*, *Oedipus Tyrannus*; Thucydides V; Euripides, *Children of Heracles*, *Hippolytus*, *Andromache*, *Hecube*; Aristophanes, *Clouds*, *Acharnians*, *Knights*, *Wasps*, *Lysistrata*, *Thesmophoriazousai*, *Ecclesiazousai*, *Plutus*, *Frogs*; Xenophon, *Hellenica* 1–v; Plato, *Apology*, *Crito*, *Phaedo*, *Euthyphro*; Demosthenes, *On the Crown*, *On the False Embassy*; Aristotle, *The Athenian Constitution*, *Poetics*; Menander (all works and fragments); Polybius, *Histories*. The abbreviations follow LSJ.

present indicative were less frequent than the aorist indicative, whereas non-indicative present forms were somehow more frequent than the non-indicative aorist forms. On the other hand, Figure 1 shows that in all Classical authors investigated the present infinitive is significantly more frequent in DeclarInfCl than the aorist infinitive. (In some authors, the former is as much as nine times more frequent than the latter.) In other words, there is a distinction between the frequencies of the aorist and the present infinitive within DeclarInfCl that cannot be accounted for with the situation in the language as a whole. Moreover, as noted earlier in Section 2, DeclarInfCl containing a perfect infinitive are characterized as “rare” by Rijksbaron (2006: 98). If this view is adopted, it seems that DeclarInfCl containing an aorist infinitive also need to be characterized as rare, given that, in most Classical texts, their frequencies are similar to the frequencies of DeclarInfCl containing the perfect infinitive (see Kavčič Forthcoming b, for more details). It thus appears that DeclarInfCl containing an aorist infinitive were relatively uncommon as early as the Classical period. As already mentioned, this tendency becomes particularly evident in Hellenistic/Roman Greek, in which DeclarInfCl containing an aorist infinitive appear to be avoided.

It seems reasonable to assume that, in terms of Classical Greek, the low frequencies of DeclarInfCl containing the aorist infinitive are at least in part related to the fact that what appears to be the most common verb (namely, ‘be’) had no aorist infinitive. Greek grammars usually state that the present infinitive was used in this case, as well as in general in DeclarInfCl, referring to anterior continuous/repeating events, or when the infinitive represents in a DeclarInfCl another function that usually associates with the imperfect (e.g., the conative use).¹⁰ In this case, the temporal reference is deduced from the context, examples including passages (6) and (7):

- (6) *Καί σε γέρον, τὸ πρὶν μὲν ἀκούομεν*
 And you.ACC.SG old.man.VOC ART before PTCL hear.IPL.PRES
ὀλβιον εἶναι
 blessed.ACC.SG be.PRES.INF
 ‘We hear, old man, that you used to be blessed before’¹¹ (Hom., *Il.* 24.543)
- (7) *ἀκούω τούτῳ τῷ ἔθει χρῆσθαι*
 hear.ISG.PRES this.DAT ART.DAT habit.DAT use.PRES.INF
 ‘I hear that they used to follow this custom’ (Dem., *Ol.* 3.34 (Goodwin 1871: 15))

10 Compare Humbert (1960: 186) and Rijksbaron (2006: 106).

11 Compare Chantraine (1953: 306), who translates this DeclarInfCl as “que tu étais heureux.”

However, this is an indication that the aorist infinitive encoded aspect rather than tense. That is, it seems reasonable to assume that, if the aorist infinitive encoded tense, it would also be used in DeclarInfCl referring to anterior continued or repeated events. Such a situation seems to obtain with the Latin perfect infinitive, which encodes tense rather than aspect (namely, anteriority)¹² and thus appears in the same role in Latin as is believed to be the case with the aorist infinitive in Greek DeclarInfCl. Note that the Latin passage in (8), with a DeclarInfCl (*qua usos esse oratores*) arguably referring to a past repeating event, contains a perfect infinitive (*usos esse*) rather than a present infinitive (*uti*):

- (8) *ad eam disciplinam, qua usos esse eos*
 to that.ACC habit.ACC which.ABL use.PERF.INF those.ACC.PL
oratores accepimus quorum infinitus labor et
 orator.ACC.PL learn.1PL.PERF whose.GEN.PL continuous work and
cotidiana meditatio et in omni genere studiorum
 everyday thinking and in every.ABL kind.ABL learning.GEN.PL
assiduae exercitationes ipsorum etiam
 constant.NOM.PL exercise.NOM.PL of.themselves also
continentur libris
 contain.3PL.PRES.PASS book.ABL.PL
 ‘To that habit, which we learned that those orators used to have, whose continuous work, everyday thinking and constant exercise in all kinds of learning can be observed in their own works’ (Tac., *Dial.* 30.2)

Temporal reference of DeclarInfCl containing an aorist infinitive can thus be accounted for in terms of their aspect, as suggested, for instance, by Sevdali (2006: 119): “anteriority can be regarded as an effect of perfective aspect.”¹³ As mentioned at the beginning of this section, this view is also adopted in this paper.

2.1.2 Present Infinitives in Classical Greek DeclarInfCl and Their Significance for the Decline of the Aorist Infinitive

Kavčič (Forthcoming b) also shows that in all periods of Ancient Greek, DeclarInfCl containing a present infinitive tended to be stative.¹⁴ A Classical Greek example of a DeclarInfCl containing a stative present infinitive (which clearly refers to a permanent condition) is passage (1).

¹² Compare Pinkster (1990: 219).

¹³ Compare Sevdali (2007: 6).

¹⁴ A stative DeclarInfCl indicates a state that exists or obtains. (States have no internal tem-

FIGURE 2 Frequencies (in %) of non-stative present infinitive in Classical Greek DeclarInfCl

Figure 2 shows that DeclarInfCl containing a non-stative present infinitive (–s Pres. Inf.) were relatively uncommon in the Classical period. Their share ranges between 20% in the earliest Classical texts (Sophocles [S.]) and 13.5% (Demosthenes [D.]) in later Classical texts. In addition, DeclarInfCl containing non-stative present infinitives are highly uncommon in Homer (Hom.).

The significance of these data is again commented on in Sections 4.2 and 6. At this point it should be emphasized that the low frequencies of DeclarInfCl containing an aorist infinitive cannot be accounted for in terms of the tendencies displayed in DeclarInfCl containing the present infinitive. In other words, DeclarInfCl containing an aorist infinitive do not seem to display a tendency towards stativity. Passages such as (2) are clearly non-stative, the same as DeclarInfCl containing the aorist infinitive *γενέσθαι*, which occurs frequently in Classical Greek DeclarInfCl. An example is passage (9):

- (9) *εὐτυχῇ μὲν οὖν οὐκ ἄν ἔγωγε φήσαιμι τὴν*
 fortunate.ACC PTCL SO NEG PTCL I say.1SG.OPT.AOR ART.ACC
στρατηγίαν αὐτῷ γενέσθαι
 campaign.ACC he.DAT become.AOR.INF
 ‘So I wouldn’t say that the campaign turned out fortunate for him.’
 (X., *Hell.* 7.5.8)

2.2 DeclarInfCl in Hellenistic/Roman Greek

2.2.1 The Aorist Infinitive in Hellenistic/Roman DeclarInfCl

There are reasons to believe that, in the post-Classical period, the aorist infinitive was gradually omitted from DeclarInfCl. In fact, Burton (1898: 53) claims

poral structure; they are the same throughout their duration, having no distinguishable phases; Huddleston & Pullum 2002: 119.)

that the NT lacks what he calls the aorist infinitive in indirect discourse: “There is apparently no instance in the New Testament of the Aorist Infinitive in indirect discourse representing the Aorist Indicative of the direct form”. Other more modern authors have made the same observation as well,¹⁵ though there has been some disagreement concerning this issue. Porter (1989: 389) finds four counterexamples in the NT; one example is passage (10):

- (10) καὶ ἦν κεκρηματισμένον ὑπὸ τοῦ
and be.3SG.IMPERF reveal.PTCP.PERF.PASS.NOM.SG by ART.GEN
πνεύματος τοῦ ἁγίου μὴ ἰδεῖν θάνατον
spirit.GEN ART.GEN holy.GEN NEG see.AOR.INF death.ACC
'It was revealed to him by the Holy Spirit that he would not see death.'
(NT Lk 2.26)

However, (10), as well as other potential cases, can be interpreted as dynamic rather than declarative because they do not seem to refer to anteriority.¹⁶ Moreover, the avoidance of DeclarInfCl containing the aorist infinitive appears to concern non-literary papyri as well. Kavčič (Forthcoming a) argues that in the corpus of the non-literary papyri contemporary with the NT¹⁷ there is hardly a convincing example to be found of an aorist infinitive in a DeclarInfCl. For instance, one of the seven potential examples is POxy 2190 (AD 100), which can be considered an example of an aorist infinitive only if the infinitive *συμπαθεῖν* is interpreted as an aorist infinitive of the verb *συνπάσχω* ‘suffer together’ rather than the present infinitive of the (stative) *συνπαθέω* ‘be in the same condition’. In yet another example (PVindBosw 1, AD 87), the aorist infinitive *ἔλθεῖν* ‘come’ in a DeclarInfCl is no more than a suggestion by the modern editor. Nonetheless, even if all potential instances are accepted, the number of DeclarInfCl containing an aorist infinitive is very low in the non-literary papyri and far below the number of the perfect infinitive, as is stressed in the following section.¹⁸

15 Compare Thorley (1989: 295), Fanning (1990: 401).

16 Compare Kavčič (2009: 162).

17 Kavčič (Forthcoming a) investigates all papyri documents occurring in Duke Databank
Documentary Papyri (DDbDP) that date back to the 1st and early 2nd centuries AD. The
number of documents containing DeclaInfCl amounts to around 150 (around 30,000
words).

18 The most convincing cases of aorist infinitives occurring in DeclarInfCl are found in official documents and include the infinitives ἐκστῆναι ‘cede’ and εὐχρησθηθῆναι ‘receive assistance’ in PDura 18 (AD 87). See Kavčič (Forthcoming a).

2.2.2 The Relation between Perfect and Aorist Infinitive in Hellenistic/Roman DeclarInfCl

Kavčič (Forthcoming a) draws attention to the frequencies of perfect and aorist infinitives in Hellenistic/Roman DeclarInfCl. The tense frequencies in the NT are displayed on the following scale (Porter 1989: 181, 246), which corresponds to Duhoux (2000: 155–156) in the respect that the perfect is less common than the present, the imperfect, and the aorist; compare Section 2.1.1.

Perfect < Present/Imperfect (10,602 words) < Aorist (11,653 words)

Arguably, there is a significant distinction between this scale and the situation in DeclarInfCl. In both the NT and in the contemporary non-literary papyri, DeclarInfCl displays a ratio between the aorist infinitive and the perfect infinitive that is the reverse of what is believed to have been the situation in the language as whole: whereas 21% of all infinitives occurring in NT DeclarInfCl are perfect infinitives, there is no unequivocal case in the NT of a DeclarInfCl containing an aorist infinitive.¹⁹ A NT example of a DeclarInfCl containing a perfect infinitive is (11):²⁰

- (11) ὁ οὖν ὄχλος ... ἔλεγεν βροντὴν γεγονέναι
 ART so crowd say.3SG.IMPERF thunder.ACC happen.PERF.INF
 ‘so the crowd ... said that it had thundered.’ (Jn 12.29)

The situation in the contemporary non-literary papyri is similar: the aorist infinitive is significantly less frequent in DeclarInfCl than the perfect infinitive, even if all potential cases of DeclarInfCl containing an aorist infinitive are taken into account (as already mentioned, there are seven such cases, representing 4.5% of all DeclarInfCl in the corpus). The number of DeclarInfCl containing a perfect infinitive is over seven times higher, amounting to 34.5% of the DeclarInfCl found in the corpus.²¹ The predominance of the perfect infinitive over the aorist infinitive is thus even stronger in Hellenistic/Roman Greek than in the Classical period.²² The issue of whether this phenomenon is related to the decline of the aorist infinitive in DeclarInfCl is discussed below in Sections 5 and 6.

¹⁹ Compare Section 2.2.1.

²⁰ Other NT cases: see Kavčič (2009: 158–161).

²¹ See Kavčič (Forthcoming a) for a detailed account.

²² Compare Section 2.1.1.

2.2.3 The Present Infinitive in Hellenistic/Roman DeclarInfCl

As already mentioned in Section 2.1.2, DeclarInfCl containing the present infinitive are characterized by what seems to be a tendency towards stativity as early as Classical Greek (and earlier in Homer). This also appears to be the case in Hellenistic/Roman Greek. Thus in the NT there is a strong tendency towards using the stative present infinitive, particularly the infinitive εἶναι ‘be’, which represents 65 % of all present infinitives occurring in DeclarInfCl.²³ In addition, most other present infinitives occurring in NT DeclarInfCl are stative, with the share of NT DeclarInfCl containing a non-stative present infinitive reaching at most 7 % of all DeclarInfCl.²⁴ The situation in the contemporary non-literary papyri is similar, although the frequency of the infinitive εἶναι ‘be’ is far from being as high as in the NT (reaching approximately 22 % of all present infinitives in DeclarInfCl; Kavčič Forthcoming a). Nevertheless, DeclarInfCl containing a stative present infinitive appear to be significantly more frequent in the non-literary papyri than those containing non-stative ones because the share of non-stative present infinitives in DeclarInfCl reaches 8 % in the corpus examined.²⁵

2.2.4 The Relation between Future and Aorist Infinitive in Hellenistic/Roman DeclarInfCl

This section analyses DeclarInfCl occurring in the NT and in the contemporary non-literary papyri from another perspective, namely, from the perspective of the relation between the future infinitive and the aorist infinitive in DeclarInfCl. As pointed out below, this analysis could have an impact on the number of DeclarInfCl containing an aorist infinitive in Hellenistic/ Roman Greek.

It seems that future infinitives are very rare in the NT, which yields only one certain case of a future infinitive in DeclarInfCl, namely, the future infinitive of

23 See Kavčič (2009: 155–158) for a detailed account. There cannot be much doubt that NT DeclarInfCl containing the infinitive εἶναι are stative; e.g., Ὑμεῖς δὲ τίνα με λέγετε εἶναι (Mt. 16.5) ‘who do you think I am?’; compare also Mt. 16.13, Mt. 22.23, Mk 8.29, etc. As an anonymous reviewer of this paper commented, the verb ‘be’ also has non-stative uses. It is worth emphasizing that, particularly in the case of Hellenistic/Roman Greek, this appears to be the case with the progressive construction of the type ἦν διδάσκων ‘he was teaching’; compare Björck (1940); Aerts (1965). However, the corpus investigated does not display DeclarInfCl containing such phrases.

24 An example is the present infinitive προσάγειν ‘approach’ in Acts 27.27; compare Kavčič (2009: 155–158) for other examples.

25 An example from the non-literary papyri is P.Tebt 302 (AD 71–72), which contains what appear to be the non-stative present infinitive γεωργεῖν ‘cultivate’ in a DeclarInfCl; compare Kavčič (Forthcoming a).

the verb ‘be’ (ἔσεσθαι, Acts 23.30). Another potential case is Jn 21.25, in which the future infinitive χωρήσειν is an alternative reading of the aorist infinitive χωρήσαι.²⁶ This appears to be linked to another process that took place in the post-Classical period: the gradual retreat of the synthetic future. It is widely accepted that the (synthetic) future infinitive retreated quickly after the end of Classical Greek and that, in general, the Ancient Greek synthetic future was gradually replaced with periphrastic forms in the post-Classical period (cf. Markopoulos 2009). It has been suggested that the gradual retreat of the future infinitive can be traced back to the 4th century AD, when it ceased to be a productive category (Fykias & Katsikadeli 2013: 40; Markopoulos 2009: 28).

Nevertheless, unlike the NT, the contemporary non-literary papyri display a more common use of the future infinitive in DeclarInfCl (compare Kavčič Forthcoming a). The corpus investigated contains twenty-one such instances (mostly in official documents). An example is given in (12):

- (12) ὡμολόγηκεν τὴν Ζηνάριον ἀποδώσειν μετ’ ἔτη
 agree.3SG.PERF ART.ACC Zenarion.ACC repay.FUT.INF after years
 πέ[ν]τε τῇ τοῦ Ἡρωνος μητρὶ [Φ]ιλουμένῃ
 five ART.DAT ART.GEN of.Heron mother.DAT Philumene.DAT
 Ἡρωνο[ς
 of.Heron
 ‘[He] agreed that after five years Zenarion would pay back [the loan] to Heron’s mother Philumene, daughter of Heron.’ (POxy 286, AD 82 (Transl. Grenfell & Hunt 1899: 279))

The number of twenty-one DeclarInfCl containing a future infinitive is based on modern papyri editions and has to be approached with some caution. Owing to morphological and phonological developments, the future infinitive (ending in -σειν) was frequently confused in Hellenistic/Roman Greek with the sigmatic aorist infinitive (ending in -σαι), particularly in the non-literary papyri documents.²⁷ The same phenomenon is illustrated in the aforementioned NT passage, Jn 21.25, where the future infinitive χωρήσειν is an alternative reading of the aorist infinitive χωρήσαι. Taking this into consideration could, of course, reduce the number of future infinitives in Hellenistic/Roman Greek

26 If χωρήσαι is the correct reading, this could be another instance of a NT DeclarInfCl containing an aorist infinitive. However, this does not seem to be a convincing case because it is not a declarative clause.

27 Compare Gignac (1981: 33), Leiwo (2010: 116), and Markopoulos (2009: 54–55). See also Lucas (2012: 104) and Section 4.1 below.

DeclarInfCl and yield additional cases of aorist infinitives. However, although this consideration does have some impact on the statistical data concerning Hellenistic/Roman Greek DeclarInfCl, the impact does not seem to be significant. As demonstrated in Kavčič (Forthcoming a), the interpretation of future infinitives ending in *-σεν* as an aorist infinitive still leaves the DeclarInfCl containing an aorist infinitive less common than those containing the perfect (and present) infinitive, although the predominance of the perfect over the aorist infinitive is less marked in this case; as stated above in Section 2.2.2, this contrasts with the presumed situation in the language as a whole and could be related to the decline of the aorist infinitive in DeclarInfCl. It is worth emphasizing that the available translations of the non-literary papyri examined do not support the assumption that the ambiguous infinitives are aorist rather than future infinitives. It seems that none of the DeclarInfCl containing an ambiguous infinitive could refer to anteriority, which is a property of DeclarInfCl containing an aorist infinitive. Evidently, the *-σεν* infinitives may well represent a future infinitive, which is another indication that the aorist infinitive was avoided in Hellenistic/Roman Greek DeclarInfCl.

Nevertheless, it should perhaps not be excluded that the aforementioned confusion between the aorist and the future indicates that the original aspectual/temporal properties of these forms were lost in the post-Classical period. This assumption could account for the decline of the aorist infinitive in DeclarInfCl and is commented on in Section 4.1.

3 Further Evidence for the Decline of the Aorist Infinitive in DeclarInfCl

3.1 *Decline of the Aorist Infinitive in DeclarInfCl in Light of the Demise of the Infinitive*

As is well known, Hellenistic/Roman and Early Byzantine Greek are also characterized by the gradual retreat of the infinitive. In this process, DeclarInfCl were replaced with finite complement clauses introduced with *ἔτι/ὥς* (see Joseph 1983: 46–57).

A phenomenon related to this process concerns the verb *λέγω*, which is the most common governing verb of DeclarInfCl in the Hellenistic/Roman texts investigated. As early as the Classical period, this verb could govern both DeclarInfCl and finite complement clauses, the latter being by far the most common complement after the (suppletive) aorist *εἶπον* (cf. Goodwin 1871: 192). However, finite complement clauses after *λέγω* become even more common in the post-Classical period. According to Fournier (1946: 149), they display a

steady increase from at least the late 5th century BC, reaching as much as 90 % of all complement clauses after this verb after the end of the Classical period.

These data suggest that what appears to be the decline of the aorist infinitive in DeclarInfCl could be perhaps be no more than a coincidence, resulting from the fact that DeclarInfCl in general were significantly less common in Hellenistic/Roman Greek than in earlier periods. This assumption is further supported by the low frequencies of DeclarInfCl containing the aorist infinitive in Classical Greek, a phenomenon that was discussed in Section 2.1.1. If DeclarInfCl containing an aorist infinitive were already uncommon in Classical Greek, it is perhaps no more than a coincidence that they are even more uncommon in the Hellenistic/Roman texts investigated.

Nevertheless, an argument against this assumption concerns the consistency of statistical data regarding frequencies of the perfect infinitive in Hellenistic/Roman DeclarInfCl. The perfect infinitive, which displays similar frequencies in Classical Greek DeclarInfCl as the aorist infinitive (see Figure 1), thus consistently displays higher frequencies than the aorist infinitive in the Hellenistic/Roman texts. If it were no more than a statistical coincidence that the latter contain so few convincing instances of the aorist infinitive in DeclarInfCl, the same would be expected in the case of the perfect infinitive. Because this is not the case, it does not seem that it is a coincidence that the aorist infinitive is uncommon in Hellenistic/Roman DeclarInfCl.

3.2 *DeclarInfCl in Hellenistic/Roman and Early Byzantine Literary Texts*

Unlike the texts examined in Section 2.2, Hellenistic/Roman literary texts provide clear instances of DeclarInfCl containing an aorist infinitive. An example is given in (13):

- (13) ἀκούσει αὐτῶν λεγόντων μηδέν ὑπ’
 hear.2SG.FUT they.GEN.PL say.PTCP.GEN.PL nothing.ACC from
 ἐμοῦ δεινόν παθεῖν
 me.GEN terrible.ACC.SG suffer.AOR.INF
 ‘You will hear no one saying that he had suffered any harm from me’ (Luc.,
Vit. Auct. 15.2)

In addition to the future infinitive and the present infinitive, whose ratios in DeclarInfCl amount to 10 % and 72 %, respectively, Lucian thus still uses the aorist infinitive (7 %), as well as the perfect infinitive in DeclarInfCl (12 %).²⁸

28 The texts analyzed include *Philosophies for Sale*, *Icaromenippus or the Sky-Man*, *Nigrinus*, *The Dead Come to Life* or *the Fishermen*.

Because literary texts of this period are generally characterized by archaizing stylistic tendencies, the use of the aorist infinitive in DeclarInfCl is not unexpected. Note that DeclarInfCl containing the aorist infinitive are commonly used in an even later author, namely in Procopius of Caesarea (6th century AD), whose language strictly follows the Classical Attic norm.²⁹

Nevertheless, the assumption about the decline of the aorist infinitive in DeclarInfCl is further supported by Early Byzantine authors who wrote in a less classicizing manner.³⁰ According to Hult (1990: 222–223), the works of Callinicus, *Life of Hypatius* (Call., *v. Hyp.*); Palladius, *Historia Lausiaca* (Pall., *h. Laus.*); and Marc the Deacon, *Life of Porphyrius* (Marc. Diac., *v. Porph.*) are non-Atticistic texts of the 5th century AD. Another example of a non-Atticistic text is believed to be Joannes Moschus' *Spiritual Meadow* (or *Pratum Spirituale*; Jo. Mosch., *Prat.*), which dates back to the sixth/seventh century AD.³¹ Figure 3 shows that DeclarInfCl containing the aorist infinitive are highly uncommon in these texts.

The text that appears to be the least Atticistic—namely Call., *v. Hyp.* (Hult 1990: 222)—does not display the aorist infinitive in DeclarInfCl, and the language of the text that contains the most such examples (Marc. Diac., *v. Porph.*) is, owing to editorial issues, least representative of 5th century Greek (Hult 1990: 223).

Figure 3 also shows that, the same as Hellenistic/Roman non-literary texts, the Early Byzantine non-Atticistic texts display a more common use of the perfect infinitive than the aorist infinitive in DeclarInfCl. In by far the most cases, Early Byzantine DeclarInfCl contain a present infinitive. These DeclarInfCl dis-

29 Compare Horrocks (2010: 231). Approximately 25% of DeclarInfCl contain the aorist infinitive in Procopius, the text analyzed, including: *The Secret History* 1–4 and *History* 1, 3. In other words, DeclarInfCl containing the aorist infinitive are about equally common in Procopius and in Herodotus; compare Figure 1.

30 As an anonymous reviewer commented, the use of the aorist infinitive in DeclarInfCl in this case perhaps results from infinitive clauses being generally more common in Atticistic than in non-Atticistic texts. As a consequence, the absence of DeclarInfCl containing the aorist infinitive in non-Atticistic texts could be a result of the low frequencies of infinitive clauses in these texts. This assumption has already been argued against in Section 3.1. Namely, it does not seem likely that the absence of DeclarInfCl containing the aorist infinitive is only a statistical coincidence. If this were the case, one would expect DeclarInfCl containing the perfect infinitive to be equally uncommon in the post-Classical texts as DeclarInfCl containing the aorist infinitive, given that in earlier periods the aorist and the perfect infinitive were about equally common in this construction (cf. Figure 1).

31 Compare Horrocks (2010: 225).

FIGURE 3 *DeclarInfCl in Early Byzantine non-Atticistic texts (frequencies in %)*

play the same tendency as earlier periods: the stative present infinitive strongly prevails over non-stative, the ratio between the two being 79 % to 21 %, respectively.

Taking into account the retreat of the future infinitive,³² it is expected that DeclarInfCl containing a future infinitive are not common in Early Byzantine non-Atticistic texts. They yield only one instance of a future infinitive in DeclarInfCl, namely ἔσεσθαι, the future infinitive of the verb 'be', as seen in (14):

- (14) καὶ σύ μοι λέγεις ὡς ἓνα ἁμαρτωλῶν
 and you me.DAT say.2SG.PRES like one.ACC sinners.GEN.PL
 ἔσεσθαι
 be.FUT.INF
 'and you are saying to me that I will be like one of the sinners?'³³ (Call., *v. Hyp.* 74)

In general, the future infinitive is limited to Atticistic authors in this period (Hult 1990: 198).

32 Compare Section 2.2.4.

33 Ancient Greek DeclarInfCl are sometimes introduced with the conjunction ὡς/ὅτι (cf. Jananaris 1968: 570). Such clauses are perhaps not to be counted among DeclarInfCl, given that this conjunction is usually associated with finite complement clauses. However, it is not very likely that this is the case in passage (14) because ὡς is used as a subordinate conjunction only by Atticistic authors in Early Byzantine Greek (Hult 1990: 180). In addition, ὡς 'like' gives a plausible interpretation of this passage.

4 The Decline of the Aorist Infinitive in DeclarInfCl: Towards an Explanation

As already mentioned in Sections 2.2.4 and 3.2, Hellenistic/Roman DeclarInfCl display a decline of the future infinitive, in addition to a decline of the aorist infinitive. The situation with the future infinitive is shown in Figure 4.

However, there is also a significant distinction between the two. On the one hand, the decline of the future infinitive in DeclarInfCl can be accounted for in terms of the general retreat of the Ancient Greek synthetic future. On the other hand, it appears that no such process affected the aorist. Mandilaras (1973: 157) claims that “The aorist’s fundamental notion of a simple occurrence stands out in the non-literary papyri just as much as in the Classical language (usage is similar in the N.T. and in the Koine writers).” In what follows, this paper seeks to account for what appears to be a decline of the aorist infinitive in DeclarInfCl. This section addresses whether or not this phenomenon could be accounted for, first in terms of Hellenistic/Roman Greek phonological processes and, second, in terms of the process of the infinitive disappearing. It ends with two different hypotheses concerning the decline of the aorist infinitive in DeclarInfCl.

4.1 *The Decline of the Aorist Infinitive in DeclarInfCl in Light of Hellenistic/Roman Greek Phonological Processes*

It may seem reasonable to assume that the decline of the aorist infinitive in DeclarInfCl could be at least in part related to Hellenistic/Roman Greek phonological processes. Namely, it has been observed that these processes led to confusion between the sigmatic aorist and the synthetic future in general, as well as between the sigmatic aorist infinitive (ending in $-\sigma\alpha\iota$) and future infinitive (ending in $-\sigma\epsilon\iota\nu$); compare Section 2.2.4. As a consequence, passages such as (2) could be ambiguous in terms of their temporal reference in Hellenistic/Roman Greek because the infinitive $\delta\rho\acute{\alpha}\sigma\alpha\iota$ could also be interpreted as the future infinitive $\delta\rho\acute{\alpha}\sigma\epsilon\iota\nu$. According to Lucas (2012: 104), it cannot be excluded that the formal merger between the originally perfective aoristic subjunctive and the aspectually neutral future indicative influenced the aoristic subjunctive “with regard to its aspect.” A similar development perhaps concerned DeclarInfCl. As a consequence, it could be assumed that the confusion between the sigmatic aorist and future infinitive had an impact on the temporal/aspectual properties of the aorist infinitive, which could no longer convey anteriority in DeclarInfCl.

Nevertheless, it seems that the phonological processes that took place in the Hellenistic/Roman period could only partially account for the decline of the aorist infinitive in DeclarInfCl. Strictly speaking, the aforementioned ambigu-

FIGURE 4 *DeclarInfCl containing the future infinitive diachronically (frequencies in %)*³⁴

ity concerns the sigmatic aorist (e.g., *δράσαι*) and future infinitive rather than other infinitive forms (e.g., the “strong” aorist infinitives such as *ἐλθεῖν*, *λαβεῖν*, and *ἰδεῖν* and the corresponding future infinitives *ἐλεύσεσθαι*, *λή(μ)ψεσθαι*, and *ὀψεσθαι*). In order to account for the decline of the aorist infinitive in *DeclarInfCl*, one would have to assume that the confusion between infinitives ending in *-σαι* and *-σεῖν* resulted in confusion between all aorist and future infinitives. However, it was already mentioned in the previous section (in connection with Mandilaras 1973: 157) that it does not seem that the situation in the language as a whole speaks in support of such an assumption. Note that the aorist infinitive is attested in a number of Classical Greek functions even in texts that avoid the aorist infinitive in *DeclarInfCl*. Examples include passages (15) and (16), with the aorist infinitives occurring in a temporal clause introduced with *πρίν* and in a consecutive clause, respectively.

- (15) *κατάβηθι πρίν ἀποθανεῖν τὸ παιδίον μου*
 come.down.2SG.IMP before die.AOR.INF ART.ACC child.ACC of.me
 ‘come down before my child dies’ (NT Jn. 4.49)

- (16) *ἀπέκλεισα τὴν κέλλαν καὶ τὴν αὐλήν, ὥστε*
 close.1SG.AOR ART.ACC cell.ACC and ART.ACC courtyard.ACC so
μὴ δοῦναι ἀνθρώπῳ ἀπόκρισιν
 NEG give.AOR.INF man.DAT answer.ACC
 ‘I closed the cell and the courtyard and so I didn’t answer.’ (Pall., *h. Laus.* 18.17)

34 Rom. Pap. (= the corpus of the non-literary papyri, dating back to the 1st / early 2nd centuries AD; see fn. 17); V AD (= non-Atticistic authors of the fifth century AD; see Section 3.2). Other data refer to the texts listed in fn. 9.

If the confusion between the sigmatic aorist and the future infinitive (as noted earlier) resulted in the decline of the aorist infinitive in DeclarInfCl, then it seems reasonable to assume that other Classical Greek functions of the aorist infinitive would undergo such a process and that its results would be manifested in Hellenistic/Roman and Early Byzantine texts (the same as the decline of the aorist infinitive in DeclarInfCl). This is not the case, however, so it does not seem that the decline of the aorist infinitive in DeclarInfCl can be accounted for in terms of Hellenistic/Roman Greek phonological processes.

4.2 *Two Hypotheses Concerning the Decline of the Aorist Infinitive in DeclarInfCl*

As already mentioned in Section 3.1, Hellenistic/Roman and Early Byzantine Greek are also characterized by the gradual retreat of the infinitive. Although Section 3.2 showed that DeclarInfCl are attested well into the Early Byzantine period, there is also evidence suggesting that DeclarInfCl were gradually being replaced with finite complement clauses as early as the Hellenistic/Roman period (see Joseph 1983: 46–57). The NT thus displays instances of finite complements in cases in which only DeclarInfCl were used in earlier periods, for example, after verbs of thinking. An example is example (17):

- (17) *Mḥ̄ νομίσητε ὅτι ἦλθον καταλῦσαι*
 NEG think.2SG.AOR.SUBJ that.CONJ come.1SG.AOR abolish.AOR.INF
τὸν νόμον ἢ τοὺς προφῆτας
 ART.ACC law.ACC or ART.ACC.PL prophet.ACC.PL
 ‘Do not think that I have come to abolish the law or the prophets.’ (NT MT 5.17)

As a consequence, the assumption that that the decline of the aorist infinitive in DeclarInfCl could be related to the process of the infinitive disappearing seems plausible.

As mentioned in Section 1, Fykias and Katsikadeli (2013) claim that infinitive clauses were “tensed” in Classical Greek. In addition, they call this state of affairs non-canonical and, as a consequence, short lasting: “There are also good reasons for assuming that this non-canonical state of affairs ... was in force for a relatively limited time span in the history of Greek” (Fykias & Katsikadeli 2013: 39–40). This makes it possible to assume that, in the process of the infinitive disappearing, the aorist infinitive was omitted from DeclarInfCl because it is not common for DeclarInfCl to convey temporal distinction (Hypothesis 1).³⁵

35 This hypothesis appears to be additionally supported by the fact that, judging from the

In addition, Thorley (1989) observes that in the NT the majority of DeclarInfCl contains a stative present infinitive, with the aorist and the future infinitive being avoided: “By the 1st century AD the infinitive construction had in any case lost ground to ὅτι, and though it was far from defunct it was apparently in common usage becoming restricted to statements about a present state” (Thorley 1989: 295).

This observation draws attention to another property of DeclarInfCl, namely, to high frequencies of stative infinitives. In terms of DeclarInfCl containing the present infinitive, the same phenomenon was observed in Sections 2.1.2, 2.2.3, and 3.2. In diachronic terms, this tendency seems to be manifested in DeclarInfCl containing the future infinitive: non-Atticistic texts displaying such clauses (namely, the NT and Call., *v. Hyp.*) employ only the future infinitive ἔσεσθαι.³⁶ As a consequence, another hypothesis can be suggested (Hypothesis 2): namely, that in the process of the infinitive disappearing, DeclarInfCl containing non-stative verbs were affected earlier than DeclarInfCl containing stative verbs, regardless of their temporal reference (i.e., whether they refer to simultaneity, posteriority, or anteriority). As a consequence, DeclarInfCl would display an increasing diachronic tendency towards containing stative verbs. According to this hypothesis, DeclarInfCl containing the aorist infinitive would display a decline because the aorist infinitive of stative verbs tends to be non-stative. This claim is based on Fanning’s study of aspect in NT Greek: “The aorist aspect with STATES denotes most frequently the entrance of the subject into the condition denoted by the verb. Thus, it makes a shift in sense and in effect becomes a kind of *active verb*” (Fanning 1990: 137).

For both hypotheses, Hellenistic/Roman and Early Byzantine DeclarInfCl containing the perfect infinitive have to be interpreted as (primarily) referring to current states, as appears to be the case in Classical Greek passage (4); see Section 2.

Hellenistic/Roman and Early Byzantine texts investigated, the synthetic future infinitive was not replaced in DeclarInfCl by future periphrases. If it were common for DeclarInfCl to convey temporal distinctions, one could expect that in the post-Classical period the future periphrastic form would adopt the function of conveying posteriority in DeclarInfCl. However, the corpus investigated does not display any significant use of future periphrases such as μέλλω + inf. and ἔχω + inf., which tended towards substituting for the synthetic future in these periods (cf. Markopoulos 2009: 49, 85).

- 36 Compare Hult (1990: 198), who draws attention to the same phenomenon, as well as Section 2.2. Other non-Atticistic texts examined (Pall., *h. Laus.*; Marc. Diac., *v. Porph.*; Jo. Mosch., *Prat.*) do not display DeclarInfCl containing the future infinitive. Official papyri documents are not mentioned here because their language tends to follow the Attic norm; compare Mandilaras (1973: 329).

5 On the Temporality of the Perfect Infinitive in DeclarInfCl

Hypothesis 1 is based on the assumption that it is non-canonical for DeclarInfCl to convey temporal distinctions. This section examines this assumption by drawing attention to the state of affairs in (two) modern languages as well as to the function of the perfect infinitive in Greek DeclarInfCl.

It can be observed that modern languages such as English and Dutch also convey temporality in DeclarInfCl; compare Stowell (1982: 566) and ter Beek (2010: 43). An English example is (18), taken from Comrie (1981: 55):

(18) The security officer believes Bill to have been in Berlin before the war.

It is beyond doubt that this clause is declarative, thus calling into question the assumption that it is uncommon for DeclarInfCl to convey temporal distinctions. Below it is argued that, in terms of Ancient Greek, the decline of the future and aorist infinitive in DeclarInfCl does not necessarily mean that DeclarInfCl could no longer convey temporality because the perfect infinitive could have adopted the function of conveying anteriority in the post-Classical period.

5.1 *The Function of the Perfect Infinitive in DeclarInfCl*

In diachronic terms, the Ancient Greek perfect underwent a change in which its temporal properties were becoming increasingly prominent. First, this is manifested with the emergence of the so-called anterior perfect. (This term is explained and exemplified in Section 2.) Subsequently, it appears that the perfect could function as a perfective past, thus functionally merging with the aorist. It seems to remain open when this development took place. Although some have found examples of this perfective use in the Roman period (Horrocks 2010: 176–178; Blass, Debrunner, & Rehkopf 2001: 281) or even earlier (Chantraine 1927: 187), it has also been suggested that this is a much later development, dating to late Antiquity (Porter 1989; McKay 1980, 1981).

This semantic development of the Ancient Greek perfect is also reflected in DeclarInfCl. On the one hand, it seems that at least in some cases the resultative meaning of the perfect infinitive was also retained in the post-Classical period. An example is in (19):³⁷

37 Compare Chantraine (1927: 233) and Haug (2004: 409).

- (19) εἴ τις δοκεῖ ἄλλος πεποιθέναι ἐν σαρκί
 if anyone think.3SG.PRES other persuade.PERF.INF in flesh.DAT
 'If anyone else thinks that he has confidence in the flesh.' (NT Phil. 3.4)

The context shows that the perfect infinitive *πεποιθέναι* refers to the current state (of having confidence) rather than an anterior event (of having obtained it). This is indicated by the use of the present tense in the preceding sentence: ἡμεῖς γὰρ ἐσμὲν ἡ περιτομή ... καυχώμενοι ἐν Χριστῷ Ἰησοῦ καὶ οὐκ ἐν σαρκὶ πεποιθότες, καίπερ ἐγὼ ἔχων πεποιθήσιν καὶ ἐν σαρκί (loc. cit.) 'we are the circumcision ... who boast in Christ Jesus, and have no confidence in the flesh, though I myself have such confidence'. The perfect infinitive *πεποιθέναι* in passage (19) has the same time reference as the perfect participle *πεποιθότες* in the previous sentence, which (as the context shows) is the present.³⁸

Nevertheless, the post-Classical period provides additional instances of the anterior perfect infinitive in DeclarInfCl.³⁹ An example is the perfect infinitive *γεγονέναι* in passage (11); compare Section 2.2.2. It refers to an anterior event that was completed in the past (namely, thundering), and the crowd is now discussing it (see NT Jn 12.28–31). The fact that the thunder is being discussed also indicates that the anterior event remains relevant, which is a property of the anterior perfect.⁴⁰

Additional examples include passages (20) and (21) below. Both contain references to anterior events. It also has to be stressed that, particularly in the latter case, the DeclarInfCl appears to contain no reference to a current relevance of the anterior event. This passage seems to reflect the final stage of the semantic development of the perfect (which was referred to earlier as the perfective use).

- (20) ἤκουσα γὰρ ἐ[ν]ταῦθα λυπερὸν πρᾶγμα συμβεβηκέναι
 hear.1SG.AOR for here sad.ACC thing.ACC happen.PERF.INF
 μοι
 to.me
 'For I heard that a sad thing has happened here to me.' (P.Oslo 2.64,
 5th/6th c. AD)

38 See also Crellin (2014: 36), who suggests a resultative reading for the perfect indicative of the same verb (*πέποιθα*) in the NT in Mt. 27.43.

39 See passage (5) in Section 2 for an earlier example of an anterior perfect infinitive in this construction.

40 Compare Section 2.

- (21) διορθωθείς διὰ τῆς τοῦ αἵου
 correct.PTCP.PERF.PASS through ART.GEN.F ART.GEN.M saint.GEN.M
 νουθεσίας διωρθώσατο ἐν ἀγνοίᾳ τοῦτο
 admonition.GEN.F correct.3SG.AOR.MEDP in ignorance.DAT this.ACC
 πεποιθέναι λέγων
 do.PERF.INF say.PTCP.PRES.NOM.SG
 ‘After being corrected by the saint’s admonition he corrected himself,
 saying that he was doing this because of his ignorance.’ (Call., *v. Hyp.* 14.3)

It seems likely that the perfect infinitive in passage (20) refers to an anterior event that also contains a current relevance. The “sad thing” (λυπερόν πράγμα) that happened in the past concerns the author of the letter (as indicated by the personal pronoun μοι) and, as the context shows, is still causing him sorrow. Namely, passage (20) is preceded by the sentence οὐδὲν γάρ μοι λυπηρόν ἐστὶν εἰ μὴ τοῦτο ‘Nothing else is causing me this sorrow,’ which clearly refers to the current relevance of the past event.⁴¹

On the other hand, the current relevance of anterior events is much less evident in example (21). The subject of the infinitive clause is a monk that used to steal food, as can be learned a few lines earlier in the text. After being caught and “corrected” (cf. διορθωθείς) by Hypatius, he says that he used to do this because of his ignorance (ἐν ἀγνοίᾳ τοῦτο πεποιθέναι λέγων ‘saying that he was doing this because of his ignorance’). However, the passage also stresses that this state of affairs was ultimately ended (the saint helped the monk correct his behavior), and it does not seem to remain relevant.

Example (22) is another instance of a perfect infinitive that conveys anteriority, without, as it seems, the events that took place in the past still being relevant.⁴² The passage is taken from Pall., *h. Laus.* 8, which tells the story of Amoun and begins with a DeclarInfCl containing a Perf. Inf. βεβιωκέναι ‘lived/passed life’:

41 It seems worth stressing that the distinctions between the resultative and the anterior perfect, as well as between the perfects that do or do not contain a reference to current relevance of anterior events, are far from clear-cut. As Crellin (2014: 36) points out, the modern analysis can differ from an interpretation of an ancient reader. As a consequence, it should not be excluded that some of the passages analyzed here were not perceived in the same manner by all speakers of Greek in Antiquity. The reading of passage (20) is thus plausible even if we assume no reference to the current relevance of anterior events; see also comments on passage (27) in Section 5.3.

42 Judging from Chantraine (1927: 187), this use of the perfect infinitive goes back to a very early stage. Namely, he finds “aoristic” use of the perfect infinitive in DeclarInfCl (with the

- (22) Ἐλεγε δὲ τὸν Ἀμοῦν βεβιωκέναι τοιούτῳ
 say.3SG.IMPERF PTCL ART.ACC Amoun live.PERF.INF such.DAT
 τρόπῳ.
 manner.DAT
 'He said that that is how Amoun lived.' (Pall., *h. Laus*. 8.1)

However, Amoun is no longer alive, and the story concludes with a clause containing an aorist (rather than a perfect) indicative; namely, ἐβίωσε 'lived':

- (23) Οὗτος τοίνυν ὁ Ἀμοῦν οὕτως ἐβίωσε
 This PTCL ART Amoun thus lived.3SG.AOR.IND
 'This Amoun lived in such a manner.' (Pall., *h. Laus*. 8.6)

Both passages refer to the same anterior events, namely, to Amoun's life. The former introduces the paragraph that tells the story about his life, and the latter summarizes it. However, there is an important difference between the two: the DeclarInfCl in passage (22) contains a perfect infinitive, whereas the finite clause in passage (23) contains an aorist indicative. It seems difficult to argue that in (22) Amoun's life is presented as having more current relevance than in (23): this would be the case if the perfect infinitive in (22) were an instance of an anterior perfect and contained a reference to the current relevance of the past events. It is more likely that the perfect infinitive is used in DeclarInfCl with the same temporal-aspectual value as the aorist indicative in (23). In this case, the perfect infinitive refers to anteriority without containing any references to the current relevance of past events, the same as the aorist indicative in passage (23). As a consequence, it also seems plausible to assume that, if the DeclarInfCl were replaced with a finite complement clause in (22), this clause would contain an aorist rather than a perfect indicative. This phenomenon seems to have parallels in modern English. Comrie (1981: 55), for instance, argues that, in passages such as (18) above, the perfect infinitive can be paraphrased with a finite form in the simple past, thus indicating that it contains no reference to a current relevance of anterior events.

It seems worth emphasizing that these examples are taken from Early Byzantine texts that are believed to provide relatively reliable insight into the lan-

latter having no relation to any current states) already in the Classical period. If this use of the perfect infinitive goes back to the Classical period, it clearly cannot be Latin influence; compare Adams (2003: 516) and Mihevc (1959: 99).

guage of the period, namely, from private letters and from non-Atticistic literary texts. In addition, a perfect infinitive is sometimes used in a DeclarInfCl together with a temporal specification of the anterior event; compare η (ἔτει) Δομιτιανοῦ ‘in the seventh year of Domitian’ in passage (24):

- (24) Θεμιστοκλέους καὶ Ἡρώως λεγόντων
 Themistocles.GEN and Heron.GEN say.PTCP.PRES.ACT.GEN.PL
 τὸ λεγόμενον γεγονέναι πράγμα
 ART.ACC talk.PTCP.PRES.MEDP.ACC.SG happen.PERF.INF thing.ACC
 ἡ (ἔτει) Δομιτιανοῦ
 eighth year.DAT of.Domitian
 ‘with Themistocles and Heron saying that the thing they were talking
 about happened in the eighth year of Domitian’ (PSI 4.281, AD 100–199)

Such passages clearly indicate that the perfect infinitive could convey anteriority in DeclarInfCl.⁴³ It also has to be emphasized that passage (24) goes back to approximately the same period as the documents displaying decline of the aorist infinitive in DeclarInfCl (see Section 2.2.1), thus speaking in support of the assumption that the latter phenomenon was related to the perfect infinitive adopting the function of conveying anteriority in DeclarInfCl. Moreover, it is noteworthy that such passages are attested in the period in which the process of the infinitive disappearing had been well in progress,⁴⁴ which does not seem to support the assumption that, in diachronic terms, DeclarInfCl tended towards omitting temporal distinctions.⁴⁵

The use of the perfect infinitive as displayed in passages (20), (21), (22), and (24) can be accounted for in terms of the tendency towards temporal properties of the perfect becoming increasingly prominent in diachronic terms. These passages speak against Hypothesis 1, according to which the decline of the aorist infinitive in DeclarInfCl is related to a tendency towards DeclarInfCl omitting temporal distinctions,⁴⁶ unless the frequencies of perfect infinitives that occur in Hellenistic/Roman and Early Byzantine DeclarInfCl and con-

43 On the significance of past-oriented temporal adverbs from a cross-linguistic perspective, see Iatridou, Anagnostopoulou, and Izvorski (2000: 154).

44 Compare Section 4.2.

45 It seems worth adding that DeclarInfCl containing a temporal specification of an anterior event are attested in an even later period than passage (24); compare PLond 5.1708 (AD 567–568): λέγων ἀποδεδωκέναι μετὰ τὴν τελευταίαν τοῦ αὐτῶν πατρὸς ‘saying that he had given after the death of their father’.

46 Compare Section 4.2.

tain a reference to anteriority appeared to be negligible—in other words, if perfect infinitives occurring in Hellenistic/Roman and Early Byzantine Declar-InfCl were predominantly perfect infinitives that cannot be characterized as containing a reference to an anterior event. An example is the perfect infinitive ἐστάναι ‘stand’ in passage (25), which is usually interpreted as referring to states without a reference to anteriority; compare LSJ, s.v. ἵστημι:

- (25) *ὥόμην* *ἐστάναι* *ἔμπροσθεν* *τινός* *ἐφ’*
 think.ISG.IMPERF stand.PERF.INF before someone.GEN on
ύψηλοῦ *καθήμενου* *θρόνου*
 high.GEN sit.PTCP.PRES.GEN.SG throne.GEN
 ‘I thought that I was standing in front of someone sitting on a high throne.’
 (Jo. Mosch., *Prat.* 2905 B)

It seems particularly important to stress this option because, according to Crellin (2014: 9, 33), the perfect can contain no reference to anteriority as late as NT Greek. It is noteworthy that the NT also displays avoidance of the aorist infinitive DeclarInfCl. If it turned out that the perfect infinitives occurring in the NT DeclarInfCl tend to avoid containing a reference to anteriority, this would be an argument against Hypothesis 3 and would support Hypotheses 1 and 2 because the latter assume that, when used in DeclarInfCl, the perfect infinitive refers to current states rather than to anterior events.

5.2 *An Alternative Hypothesis Concerning the Decline of the Aorist Infinitive in DeclarInfCl*

Section 2.1.1 drew attention to phenomena suggesting that the aorist infinitive encoded aspect rather than tense in Ancient Greek. From this perspective, it can be claimed that a DeclarInfCl containing a perfect infinitive (e.g., εἰληφέναι ‘to have obtained’) displays a more transparent reference to anteriority than a DeclarInfCl containing an aorist infinitive (e.g., λαβεῖν ‘to obtain’). An additional argument supporting this assumption concerns dynamic infinitive clauses. (As mentioned in Section 1, these clauses refer to a potential event in posteriority.) The aorist infinitive is used in both DeclarInfCl and in dynamic infinitive clauses,⁴⁷ which is why an infinitive clause containing an aorist infinitive can be ambiguous in terms of its temporal reference. For instance, passage

47 Greek grammars usually state that a dynamic infinitive clause is clearly distinguished from a DeclarInfCl when negated because the negative particle οὐ is used in the former and μή in the latter (cf. Rijksbaron 2006: 104, 106). However, this distinction does not seem to apply

(26), one of the potential cases of DeclarInfCl containing an aorist infinitive in the NT, can also be interpreted as a dynamic infinitive clause referring to posteriority:⁴⁸

- (26) διὰ τῆς χάριτος τοῦ κυρίου πιστεύομεν
 through ART.GEN grace.GEN ART.GEN lord.GEN believe.1PL.PRES
 σωθῆναι
 save.AOR.INF.PASS
 ‘We believe that we have been/we are/we will be saved through the grace
 of the Lord’ (Acts 15.11)

On the other hand, DeclarInfCl containing a perfect infinitive appear to be unambiguous in this respect because dynamic infinitive clauses associate with the aorist or the present infinitive rather than with the perfect infinitive.⁴⁹

As a consequence, it can be argued that the decline of the aorist infinitive in DeclarInfCl is related to the aspectual nature of the latter, which led to the perfect infinitive adopting the function of conveying anteriority in DeclarInfCl (Hypothesis 3). This hypothesis contrasts with both Hypotheses 1 and 2 because it accounts for the high frequencies of perfect infinitive in Hellenistic/Roman and Early Byzantine DeclarInfCl in terms of their temporal properties (or the reference to anteriority) rather than in terms of referring to states. It relates the decline of the aorist infinitive in DeclarInfCl to the spread of the (anterior) perfect rather than to the process of the infinitive disappearing, which may seem a counterintuitive assumption. However, Hypothesis 3 is consistent with what appears to be a widely accepted claim about the temporal properties of the Ancient Greek perfect becoming increasingly prominent in diachronic terms.

6 Diachronic Tendencies Concerning the Present, Aorist, and Perfect Infinitive in DeclarInfCl

Aiming to evaluate the three hypotheses about the decline of the aorist infinitive in DeclarInfCl, this section examines diachronic tendencies concerning the use of the present, the aorist, and the perfect infinitive in DeclarInfCl. It

in Hellenistic/Roman and in Early Byzantine Greek because the particle μή is also used in DeclarInfCl (cf. Mayser 1934: 552–553).

48 The same applies to passage (10); compare Section 2.2.1.

49 Compare Rijksbaron (2006: 98, 102).

is argued that Hypothesis 3 is the most plausible of the three, with somewhat less convincing evidence supporting Hypothesis 2.⁵⁰

In addition to the data from previous sections, the following figures contain:

- Data concerning a corpus of early Hellenistic papyri, dating back to the 3rd /early 2nd century BC (referred to as Hell. Pap.)⁵¹
- A corpus of non-Atticistic texts from the 6th/7th century AD (referred to as VI AD), which consists of *Pratum Spirituale* (cf. Section 3.2) and private papyri documents dating back to this period. These corpora are treated together because, owing to the disappearance of the infinitive, DeclarInfCl appear to be relatively uncommon in this period. The Duke Databank of Documentary Papyri (DDBDP) contains approximately ten private letters containing DeclarInfCl, with *Pratum Spirituale* containing an additional thirty-four instances.⁵²

6.1 *Diachronic Tendencies in DeclarInfCl Containing Present Infinitives*

As suggested in Section 4.2, the decline of the aorist infinitive in DeclarInfCl could be accounted for if, in diachronic terms, there was an increasing tendency towards DeclarInfCl containing stative verbs (regardless of their temporal reference; Hypothesis 2). First, this section examines whether or not DeclarInfCl containing the present infinitive display this tendency.

As already suggested in Section 2.1.2, all Classical authors display a relatively strong tendency towards DeclarInfCl containing stative present infinitives, and this tendency is even more prominent in Homer.

In Hellenistic/Roman Greek, DeclarInfCl containing non-stative present infinitives amount to 7% in the NT and to 8% in the contemporary non-literary papyri (Rom. Pap.).⁵³ As a consequence, it can be argued that DeclarInfCl con-

50 Kavčič (Forthcoming b) largely leaves open the issue of why the aorist infinitive displays a decline in Hellenistic/Roman DeclarInfCl, focusing on their tendency towards stativity of DeclarInfCl and on the relation between DeclarInfCl and finite complement clauses. As a consequence, this study sometimes mentions that the tendency towards stativity of DeclarInfCl could account for the decline of the aorist infinitive in DeclarInfCl.

51 The corpus contains all Greek non-literary documents occurring in the Duke Databank of Documentary Papyri (DDBDP) that go back to the third / early second century BC and contain instances of DeclarInfCl.

52 In addition, the following terms are used in the figures of this section: V BC and IV BC (= authors and works dating back to the 5th and 4th centuries BC, listed in fn. 9); Rom. Pap., V AD: see fn. 34.

53 Compare Section 2.2.3.

FIGURE 5 *DeclarInfCl* containing non-stative present infinitives (-s Pres. Inf.) diachronically (frequencies in %)

taining stative present infinitives show only a weak tendency to gradually prevail over those containing non-stative present infinitives in the period between Classical and Hellenistic/Roman Greek. On the other hand, this tendency is less prominent in the non-Atticistic authors of the 5th century AD; see data concerning V AD in Figure 5. Based on the texts investigated, it could thus hardly be claimed that, in diachronic terms, *DeclarInfCl* containing present infinitives display a prominent increasing tendency towards containing stative verbs (compare Kavčič Forthcoming b).

Nevertheless, it was suggested in Section 4.2 that this tendency might be manifested in Hellenistic/Roman and Early Byzantine *DeclarInfCl* containing the future infinitive, with the latest examples of this construction containing the (stative) future infinitive $\xi\sigma\epsilon\sigma\theta\alpha\iota$. Future infinitives are frequently non-stative in Classical Greek *DeclarInfCl* (as well as earlier in Homer), examples including passages (3) and (12). As a consequence, it is reasonable to assume that the retreat of the future infinitive led to *DeclarInfCl* containing a stative infinitive being more common in Hellenistic/Roman and in Early Byzantine Greek than in earlier periods. According to Hypothesis 2, this increasing tendency towards *DeclarInfCl* containing a stative infinitive could account for the decline of the aorist infinitive in *DeclarInfCl*. Namely, *DeclarInfCl* containing an aorist infinitive contrast with this tendency because they tend to be non-stative; compare Section 4.2. Note that *DeclarInfCl* containing a stative infinitive represent at least 75% of all *DeclarInfCl* in the NT, 70% in Call., v. *Hyp.*, and 80% in Jo. Mosch., *Prat.* (to cite examples of least Atticistic texts).⁵⁴ Although these data represent only minimum frequencies of the stative infini-

54 In addition to passage (14), Early Byzantine examples of *DeclarInfCl* containing a stative verb include Call., v. *Hyp.* 78, 98, 140; Marc. Diac., v. *Porph.* 5, 18, 65, 12; Jo. Mosch., *Prat.*, 2901

FIGURE 6 *DeclarInfCl containing aorist/perfect infinitives diachronically*

tives in DeclarInfCl (perfect infinitives are not counted as stative here), they could nonetheless be used in support of Hypothesis 2.

Hypothesis 2, as well as the issue of whether or not perfect infinitives can be interpreted as stative, is re-examined in Section 6.3, and another important conclusion that can be drawn from Figure 5 concerns the synchronic perspective on DeclarInfCl. Namely, it is not uncommon for DeclarInfCl to contain high frequencies of stative present infinitives, in addition to displaying temporal distinctions. For instance, DeclarInfCl containing a future infinitive are common in Classical Greek as well as earlier in Homer; see Figure 4.⁵⁵

6.2 *Diachronic Tendencies in DeclarInfCl Containing a Perfect Infinitive*

Figure 6 shows that DeclarInfCl containing a perfect infinitive display a significant increase after Classical Greek (i.e., in the Hellenistic Papyri [Hell. Pap.], in the NT, in the contemporary non-literary [Rom. Pap.] and in the 5th century AD [V AD]). At the same time, DeclarInfCl containing an aorist infinitive display a decreasing tendency, although the aorist infinitive appears somehow more common in Polybius. His language is sometimes characterized as “official koine” (Horrocks 2010: 97), which is why his texts are perhaps less representative of Hellenistic/Roman Greek than non-literary papyri and the NT.

Because Figure 6 shows a decline in the aorist infinitive in DeclarInfCl, with a parallel increase in the perfect infinitive in this construction, it necessarily draws attention to Hypothesis 3 because this hypothesis relates the decline of the aorist infinitive in DeclarInfCl to the increase of the perfect infinitive. Namely, it claims that the perfect infinitive replaced the aorist infinitive in the

A, 2901 B, 1912 A, 3924 D, etc. Examples from the NT and contemporary non-literary papyri: Kavčič (Forthcoming a).

55 Homeric examples of DeclarInfCl referring to posteriority/anteriority include *Il.* 1.58, *Il.* 1.517, *Il.* 9.683, *Od.* 5.300, and *Od.* 10.284; see also Chantraine (1953: 306).

function of conveying anteriority in DeclarInfCl.⁵⁶ Nevertheless, these data can be used in support of Hypothesis 3 only if the increasing tendency concerning DeclarInfCl containing a perfect infinitive is related to the spread of the perfect infinitive that conveyed anteriority in this construction.

In addition, Figure 6 shows that DeclarInfCl containing the perfect infinitive display decreasing tendencies between the Roman and the Early Byzantine periods; see data concerning NT, Rom. Pap., V AD and VI/VII AD. On the one hand, this is the expected situation. Namely, the Ancient Greek perfect underwent a restructuring process during this period, leading to its eventual substitution with periphrastic forms (cf. Horrocks 2010: 176–178). According to Mandilaras (1973: 219–220), a steady decrease in the use of the perfect can be shown from at least the 2nd century AD.⁵⁷ The perfect is thus about one-tenth as frequent in the 5th century AD as in the 1st century AD, whereas in the 6th century AD, it is 27 % as frequent as in the 1st century AD (loc. cit.). Based on Figure 6, it can be argued that the process was less steady in the case of the perfect infinitive occurring in DeclarInfCl than in the language as whole. In the Early Byzantine texts investigated, perfect infinitives occurring in DeclarInfCl are about equally as common as in the NT, although they do appear to be somehow less common in the Roman papyri contemporary with the NT. However, this decrease does not seem to have been as steady as was the case with the perfect in the language as a whole.⁵⁸ This persistent use of the perfect infinitive in DeclarInfCl could be used in support of Hypothesis 3 if it is related to a tendency towards perfect infinitives conveying anteriority in DeclarInfCl. If, on the other hand, the perfect infinitive in Early Byzantine DeclarInfCl tended towards referring to current states rather than to anterior events, this would be an argument against Hypothesis 3 and would support Hypotheses 1 and 2.

56 Compare Section 5.2.

57 Compare Duhoux (2000: 425).

58 In the Early Byzantine authors investigated, DeclarInfCl containing the perfect infinitive range between 10 % (in Marc the Deacon) and 31 % (in Callinicus). In other words, such clauses are about half as frequent in Marc the Deacon, who displays the least common use of DeclarInfCl containing the perfect infinitive, as in the New Testament (NT), and they are one-third as common in this author as in the non-literary papyri contemporary with the NT. (As shown in Section 2.2.2, such clauses amount to 21 % of all DeclarInfCl in the NT and to 34.5 % in the contemporary non-literary papyri.) In Callinicus, who displays the most common use of DeclarInfCl containing the perfect infinitive, such clauses are somehow more common than in the NT and about equally as common as in the contemporary non-literary papyri.

The issue of whether or not the two diachronic tendencies observed in connection with Figure 6 are related to a tendency towards DeclarInfCl associating with anterior perfect infinitives is taken up in the next section.

6.2.1 The Spread of the Perfect Infinitive in DeclarInfCl: A Semantic Perspective

It has been suggested that the anterior perfect became particularly common in the late Classical period (from the 4th century AD onwards; see Haug 2008: 302).⁵⁹ From this perspective the spread of the perfect infinitive as shown in Figure 6 is likely to be a result of the spread of the anterior (rather than the resultative) perfect infinitive in the construction investigated.

In addition, DeclarInfCl occurring in the Hellenistic/Roman texts investigated, as well as in the Early Byzantine texts, contain perfect infinitives of verbs whose active perfect forms are not attested before the 4th century BC (according to TLG). Examples include the infinitives ἀπενηνοχέναι 'have carried away', ἡγοραχέναι 'have bought', δεδανειχέναι 'have borrowed', κεχρηματικέναι 'have negotiated' (the first occurrence of this perfect in the fourth century BC); κατηντηχέναι 'have arrived', συμπεφωνηχέναι 'have agreed', and προσανειληφέναι 'have adopted' (the first occurrence in the 3rd century BC or later). The fact that the construction investigated displays instances of perfect infinitive forms that were not used before the late Classical period speaks in itself in support of the assumption that it was affected by the spread of the anterior perfect. Namely, such innovative forms are believed to be associated with the function of the anterior perfect; see Haspelmath (1992: 212–215) and Haug (2008: 302). The latter also observes that the spread of the anterior perfect in Ancient Greek is characterized by the emergence of (active) perfect forms of atelic verbs (*loc. cit.*). An example from the list above is the Perf. Inf. κεχρηματικέναι (active perfect infinitive of the verb χρηματίζω 'negotiate'). This is another indication that the spread of the perfect infinitive as shown in Figure 6 was related to the spread of the anterior perfect in the construction investigated.

In general, most of the above infinitives that do not occur in the construction investigated before the Hellenistic/Roman period are agent-oriented (e.g., ἀπενηνοχέναι 'have carried away', ἡγοραχέναι 'have bought', δεδανειχέναι 'have borrowed', κατηντηχέναι 'have arrived'), which is a property of the anterior rather than the resultative perfect (Haspelmath 1992: 212). In the non-literary papyri contemporary with the NT, and in the Early Byzantine texts investigated,

59 Nevertheless, some studies place this development to an earlier period; see Slings (1994: 244), Duhoux (2000: 430), and Bentein (2012a: 184).

agent-oriented perfect infinitives account for more than half of the perfect infinitives occurring in DeclarInfCl, whereas in the NT agent-oriented perfect infinitives amount to 43 % of the perfect infinitives occurring in this construction.⁶⁰ All of these texts also display the avoidance of the aorist infinitive in DeclarInfCl. Because these numbers are far from insignificant, it could hardly be argued that DeclarInfCl tend to avoid containing a perfect infinitive with a reference to anterior events in texts displaying avoidance of the aorist infinitive in this construction. (As suggested in Section 5.1, such a tendency would speak against Hypothesis 3 and in support of Hypotheses 1 and 2.) In general, DeclarInfCl containing agent-oriented perfect infinitives are less common in earlier texts that do not display the avoidance of the aorist infinitive in DeclarInfCl. For instance, such clauses amount to approximately 31 % of DeclarInfCl containing the perfect infinitive in Polybius, whereas they are even less common in earlier periods: they amount to 23 % of DeclarInfCl containing the perfect infinitive in the 5th-century BC authors, and appear to be uncommon in Homer.

These data show that there is a correlation between the spread of the anterior perfect in Ancient Greek and the two diachronic tendencies observed in connection with Figure 6; namely, the spread of the perfect infinitive in DeclarInfCl, as displayed in the period after the 4th century BC (see Figure 6), as well as the perfect infinitive being relatively common in the construction investigated in the Early Byzantine period (when the use of the perfect appears to show a steady decrease in the language as a whole).⁶¹ It also seems worth stressing that at least some perfect infinitives occurring in Hellenistic/Roman and in Early Byzantine DeclarInfCl refer to anteriority and do not seem to contain any reference to the current relevance of the anterior event; examples include passages (21) and (22).⁶² As suggested in the previous section, these data speak in support of Hypothesis 3.

60 These data include agent-oriented perfect infinitives that are already attested in the Classical period; for example, the perfect infinitive *πεποιχέναι* (see example 5 in Section 2).

61 It is also true that the post-Classical period displays instances of DeclarInfCl containing a resultative perfect infinitive; an example is passage (19) above. However, this does not contradict the assumption that some perfect infinitives conveyed anteriority in this construction.

62 It may be observed that in this section the emphasis is placed on active rather than on passive perfect infinitives. Passive perfect infinitives are attested in DeclarInfCl from the earliest texts onwards. However, there seems to be a decreasing diachronic tendency in their use in DeclarInfCl. In Homer, they account for approximately 70 % of all infinitives

6.2.2 Diachronic Tendencies Concerning Transitive Perfect Infinitives in DeclarInfCl

In diachronic terms, there was also a tendency towards the perfect becoming increasingly prominent. This has been claimed in major traditional studies as well as modern studies of the history of the Greek perfect (Wackernagel 1904; Chantraine 1927; Haspelmath 1992: 194–217; Haug 2008: 292; Bentein 2012a).

It is clear that not all anterior perfect infinitives are transitive,⁶³ and also that throughout its history the perfect could be used transitively. Haspelmath (1992: 202), among others, points this out, adding nonetheless that in Homer transitive perfects are “semantically based exceptions.” In the case of the resultative perfect, the object was effected rather than affected, whereas there were no such restrictions concerning the transitivity of the anterior perfect; see Haspelmath (1992: 210–216).⁶⁴ It is therefore reasonable to assume that if, in diachronic terms, transitive perfect infinitives were becoming increasingly common in DeclarInfCl, this tendency was likely a result of the spread of the anterior perfect infinitive in this construction. If, on the other hand, the diachronic perspective showed no increase in transitive perfect infinitives in DeclarInfCl, it would be more likely that the construction retained its original semantics (cf. Kavčič Forthcoming b).

Frequencies of DeclarInfCl containing transitive perfect infinitives (TransPerf) are presented in Figure 7.

Figure 7 clearly shows that, in general, all Hellenistic/Roman and Early Byzantine texts investigated display higher frequencies of transitive perfect infinitives in DeclarInfCl than Classical texts, with the minor exception of the NT. The share of DeclarInfCl containing transitive perfect infinitives amounts

in DeclarInfCl, and in Polybius approximately 40%, and they are even less common in Hellenistic/Roman non-literary papyri (13%). Because it is believed that the passive associates with the resultative meaning, this appears to be another indication that the anterior perfect was more common in DeclarInfCl than the resultative perfect (see Haug 2004: 398; Haspelmath 1992: 198, 214).

63 In the corpus investigated, examples of intransitive perfect infinitives that contain a reference to anteriority include passages (11), (20), (22), and (24).

64 Moreover, Bentein (2012a) draws attention to the scalar concept of transitivity (as conceptualized in Hopper & Thompson 1980) and its significance for the history of the Greek perfect. Perfectivity and agent-orientedness, which in diachronic terms were becoming increasingly prominent features of the Ancient Greek perfect, are thus also high-transitivity features (Hopper & Thompson 1980: 252); see also Section 2 on agent-orientedness.

FIGURE 7 *Transitive perfect infinitives (TransPerf) in DeclarInfCl*

to 28% of all DeclarInfCl containing a perfect infinitive in the NT, and approximately 37% of such DeclarInfCl in contemporary non-literary papyri (Rom. Pap.).⁶⁵ It has to be stressed that they appear to be common even in Early Byzantine texts (see data under V AD and VI/VII AD), although the perfect in general (as well as the perfect infinitive in DeclarInfCl) displays a decline during this period, as already mentioned in Section 6.2. The transitive perfect infinitive in DeclarInfCl, in contrast, does not display such a decline. As a consequence, it can be assumed that the decline of the perfect infinitive in DeclarInfCl, as observed in Figure 6, is a result of a decline in DeclarInfCl containing a passive and intransitive active perfect infinitive.

It is worth mentioning that this tendency is not manifested by Classical literary and later Atticistic texts. DeclarInfCl containing a transitive perfect infinitive are highly uncommon in Homer and Herodotus, which is the expected state of affairs (given that the anterior perfect is believed to be rare before the end of the Classical period and that this perfect tends to be transitive).⁶⁶ However, data on Classical literary and later Atticistic texts appear to be rather inconclusive: DeclarInfCl containing transitive perfect infinitives are about equally frequent in Polybius (37% of perfect infinitives in DeclarInfCl), and much earlier in Sophocles (31%). In addition, such clauses are about equally as common in the Roman period in Lucian (12%) as in Classical Greek in Aristophanes (12.5%). In Procopius, a much later classicizing author, this ratio reaches 23% of perfect infinitives in DeclarInfCl (and is thus lower than, e.g., in Sophocles and Polybius).⁶⁷

65 Again, the percentage of the latter partly depends on whether all perfect infinitives are accepted as such or not. Compare Kavčič (Forthcoming a).

66 See Section 6.2.1.

67 These data refer to the texts listed in fnn. 9, 28, 29.

In other words, Classical literary and later Atticistic texts do not display an increasing diachronic tendency towards DeclarInfCl containing a transitive perfect infinitive. Moreover, these texts do not appear to display the decline of the aorist infinitive in DeclarInfCl at all, with the style of Hellenistic/Roman and Early Byzantine Atticistic texts being highly conservative.⁶⁸ This, in turn, can be used in support of the assumption that the decline of the aorist infinitive in DeclarInfCl is related to the spread of the transitive perfect (and, in more general terms, to the spread of the anterior perfect infinitive) in this construction. In other words, these data support Hypothesis 3: namely, the fact that only texts displaying a decline of the aorist infinitive in DeclarInfCl (i.e., non-literary documents and non-Atticistic literary texts) also display an increasing tendency for the transitive perfect infinitive in DeclarInfCl is consistent with the assumption that the two phenomena are related to one another, which is claimed by this hypothesis.

6.2.3 The Perfect According to Crellin (2014): Further Evidence for the Temporal Use of the Perfect Infinitive in DeclarInfCl

A recent article by Crellin (2014) sheds light on the semantics of the perfect in the NT from the perspective of the Gothic translation. His findings are particularly significant because they provide insight into how the Greek perfect was perceived by Wulfila (ca. 311–383), a bilingual individual whose level of Greek shows “sensitivity to the subtleties of the Greek language” (Crellin 2014: 17). The study focuses on the active perfect forms and shows that, whereas the perfects of “non-state” verbs are regularly translated into Gothic with past tense forms, the perfects of “state” and “change-of-state” verbs could be translated by past or non-past tense forms (Crellin 2014: 38).⁶⁹ Although he studies the indicative rather than the infinitive, the majority (approximately 90%) of the perfect infinitives in the NT DeclarInfCl are active and can thus be tested according to the parameters applying in the case of the indicative.

The analysis shows that most of the perfect infinitives occurring in NT DeclarInfCl belong to the category of “change-of-state” verbs (48% of all DeclarInfCl containing the perfect infinitive in the NT). In general, these verbs allow a past or non-past interpretation. However, DeclarInfCl also contain instances of perfect infinitives of “change-of-location” verbs, which the Gothic translator regularly translates as past tense forms (Crellin 2014: 32), examples

68 Compare Section 3.2.

69 In this section I use Crellin's terms *state* and *non-state* verbs, which are referred to as “stative” and “non-stative” verbs elsewhere in the text.

including ἐκπεφυγέναι (the perfect infinitive of the verb ἐκφεύγω ‘flee away’ in Acts 16.27), as well as ὑστερηκέναι (the perfect infinitive of the verb ὑστερέω ‘come later than’) in Heb 4.1 and in 2 Cor 11.5. These instances represent 15 % of all perfect infinitives in the NT DeclarInfCl.

In addition, active perfect infinitives are very frequent in DeclarInfCl occurring in the corpus of the non-literary papyri contemporary with the NT. They amount to 87 % of all perfect infinitives in the construction. When compared with the NT, this corpus displays an even more common use of the perfect infinitive, which according to Crellin (2014) correspond to past tense interpretation. Active perfect infinitives of “non-state” and “change-of-location” verbs (which associate with past-tense interpretations in Gothic) amount to 30 % of all DeclarInfCl containing the perfect infinitive, whereas active perfect infinitives of “change-of-state” verbs amount at 40 % of such clauses.⁷⁰ Although in the latter case not all DeclarInfCl may correspond to past-tense interpretation, it seems reasonable to assume that at least 30 % of DeclarInfCl containing the perfect infinitive were perceived as referring to anteriority.

The analysis therefore shows that in the NT in the corpus of contemporary non-literary papyri, although most of the perfect infinitives may have allowed a past or a non-past tense oriented interpretation, it is very likely that at least some of them could only be interpreted as past tense forms. At the same time, this period displays avoidance of the aorist infinitive in DeclarInfCl. As a consequence, these data speak in support of Hypothesis 3 because this hypothesis claims that the decline of the aorist infinitive in DeclarInfCl is related to the perfect infinitive adopting the function of conveying anteriority in the construction.

It might be argued that the shortcoming of this evidence concerns the fact that it shows how a bilingual individual in the 4th century AD perceived the Ancient Greek perfect. Perhaps the same perfects were not perceived in the same manner a few centuries earlier, and perhaps it is more reasonable to claim that Wulfilā’s account of the Greek perfect provides an insight into the percep-

70 Examples include: πεπρακέναι ‘have done’, ἀποδεδωκέναι ‘have given back’, δεδανεικέναι ‘have borrowed’, δεδωκέναι ‘have given’, διηρπακέναι ‘have torn’, ἡγορακέναι ‘have brought’, μεταδεδωκέν[α]ι ‘have transmitted’, πεπομφέναι ‘have sent’ (“non-state” verbs); ἀνακεχωρηκέναι ‘have run away’, ἐληλυθέναι ‘have come’, ἐπιδεδημηκέναι ‘have come home’, κατεληλυθέναι ‘have come (down)’, κατηγτηκέναι ‘have arrived’, συνεχωρηκέναι ‘have come together’ (“change-of-location” verbs); γεγονέναι ‘have become’, παρεστακέναι ‘have set beside’, παραπεπτωκέναι ‘have fallen (away)’; see Kavčič (Forthcoming a). The classification of the verbs into “state”, “change-of-state”, and “change-of-location” verbs is according to Crellin (2014: 29–30).

tion of this form in his own times (the 4th century AD). In this case, Crellin's findings can be applied to Early Byzantine rather than to earlier texts. The majority of active perfect infinitives in DeclarInfCl occurring in Early Byzantine texts investigated are perfects of "change-of-state" verbs, which allow for non-past tense interpretations. However, these texts also occasionally display DeclarInfCl containing perfect infinitives that usually correspond to past-tense interpretations. An example is passage (21) above, which contains the perfect infinitive of a "non-state" verb (ποιέω 'do').⁷¹ It can thus be argued that, at least in the Early Byzantine period (if not earlier) and in the text displaying the avoidance of the aorist infinitive in DeclarInfCl, some DeclarInfCl containing the perfect infinitive were likely to be interpreted as referring to anteriority. In this case, the avoidance of DeclarInfCl containing the aorist infinitive can be accounted for with Hypothesis 3 for the Early Byzantine texts rather than for earlier texts.

6.3 *Hypotheses on the Decline of the Aorist Infinitive in DeclarInfCl Revisited*

Section 6.2 offered evidence supporting Hypothesis 3 on the decline of the aorist infinitive in DeclarInfCl, according to which this phenomenon is related to the perfect infinitive adopting the function of conveying anteriority in DeclarInfCl: first, by showing that the decline of the aorist infinitive coincides with a spread of the perfect infinitive in DeclarInfCl and, second, by showing that this spread is related to the use of the anterior perfect infinitive.

Hypothesis 3 is based on the assumption that temporal properties of the perfect were becoming increasingly prominent in the post-Classical period. Although this is the predominant view, it is worth emphasizing that some scholars have claimed that the perfect retained its stative meaning until late (namely, until at least the 5th century AD; cf. McKay 1980, 1981; Porter 1989). If this is accepted, Hypotheses 1 and 2 gain ground at the expense of Hypothesis 3 because, according to both hypotheses, the perfect infinitives in DeclarInfCl refer to current states (cf. Section 4.2), with Hypothesis 2 being more plausible than Hypothesis 1. Namely, although DeclarInfCl appear to tend towards omitting temporal distinctions in diachronic terms (the expectation of Hypoth-

71 Additional examples of active perfect infinitives of verbs that correspond to past-tense interpretations and occur in Early Byzantine DeclarInfCl include προσεληλυθέναι 'have come to' in P.Mich 13.659 (AD 527–547), πεποιηκέναι 'have done' in Call., *v. Hyp.* 4.3, εἰρηκέναι 'said' in Pall., *h. Laus* 10.6, and δεδωκέναι 'have given' in P.Muench 1.8 (AD 540), BGU 1.314 (AD 630), CPR 14.13 (6th or 7th century AD), and Jo. Mal., *Chron.*, 441. The latter text is the *Chronicle of John Malalas*; compare Horrocks (2010: 224) on its language.

esis 1),⁷² the majority of DeclarInfCl in the latest texts investigated contain a stative infinitive, with a (stative) future infinitive occurring even in a non-Atticistic text of the 5th century AD, which is the expectation of Hypothesis 2. For instance, DeclarInfCl containing a stative infinitive amount to approximately 90% in the NT, 91% in Jo. Mosch., *Prat.*, and 94% in Call., *v. Hyp.*, if perfect infinitives are counted as stative. According to Hypothesis 2, aorist infinitives were avoided in Hellenistic/Roman and Early Byzantine DeclarInfCl because they tend to be non-stative, thus contrasting with what appears to be a tendency towards DeclarInfCl containing a stative infinitive.

Perhaps the “radical” view, according to which the perfect retained its stative meaning even in Early Byzantine Greek and had not functionally merged by this period with the aorist, could be supported by some very late examples of the perfect infinitive in DeclarInfCl, for instance, (27):

- (27) ὁ δὲ ἐξενέγκας τὰ τριακόσια
 ART PTCL disclose.PTCP.AOR.NOM.SG ART.ACC.PL three.hundred.ACC
 μιλιαρίσια, ἔδωκεν αὐτῇ, εἰπὼν
 coin.ACC.PL give.3SG.AOR she.DAT say.PTCP.AOR.NOM.SG
 τοσούτου πεπρακέναι αὐτό
 so.much.GEN sell.PERF.INF this.ACC
 ‘After having disclosed three hundred coins, he gave them to her, saying
 that he had sold it for that much money’ (Jo. Mosch., *Prat.* 3061 B)

Because the context refers to the agent’s satisfaction with the sale, it can be argued that the perfect infinitive πεπρακέναι ‘to have sold’ contains even in this very late example a reference to a current state in the sense of continuing relevance of an anterior event and that, as a consequence, the perfect infinitive could not have substituted for the aorist infinitive in DeclarInfCl because its function in this construction was not identical with the function of the aorist infinitive.

Nevertheless, the reading of the same passage seems plausible even if the perfect infinitive πεπρακέναι ‘to have sold’ is understood in its temporal value, without assuming any reference to a current state (in the meaning of the continuing relevance of the anterior event). Section 6.1 also shows that, from the synchronic perspective, it is not unacceptable for DeclarInfCl to contain predominantly stative present infinitives in addition to conveying temporal distinctions. As a consequence, the assumption that Hellenistic/Roman and Early

72 Compare Section 4.2.

Byzantine DeclarInfCl contain predominantly stative present infinitives, with the perfect infinitive conveying temporal distinctions (namely, anteriority), appears to be acceptable. Moreover, passages (21), (22), and (24), in addition to what appears to be a significant tendency towards DeclarInfCl associating with anterior perfect infinitives,⁷³ strongly support Hypothesis 3. According to this hypothesis, the perfect infinitive conveyed anteriority in Hellenistic/Roman and in Early Byzantine DeclarInfCl (and replaced the aorist infinitive in this function).

This conclusion contrasts with studies according to which the perfect remained stative until Early Byzantine Greek. Namely, it allows for the perfect infinitive to convey anteriority and occur in the non-stative use much earlier in Hellenistic/Roman Greek, although it cannot be excluded that in some cases—for example, in passage (27)—the perfect infinitive was perhaps perceived as containing a reference to a current state. It is noteworthy that the aforementioned studies mostly focus on the perfect indicative rather than on the infinitive. Perhaps one should not exclude the possibility that the tendency towards the perfect adopting temporal properties was more prominent in the case of the perfect infinitive (when used in DeclarInfCl) than in the case of the indicative. Namely, if it is accepted that the aorist infinitive encoded aspect rather than tense (cf. Section 2.1.1), it can be argued that no Ancient Greek infinitive encoded anteriority before the perfect infinitive became past-oriented. As a result, the tendency towards the perfect infinitive adopting the temporal function in DeclarInfCl was perhaps particularly prominent. As already mentioned in Section 5.1, such a development could have its parallel in English. According to Comrie (1981: 55), the “perfect” meaning of the present perfect is thus “neutralized” in some non-finite constructions, for example, in passage (18).⁷⁴ As a result, these constructions convey anteriority without retaining reference to the current relevance of anterior events and are “paraphrasable” in English with a finite verb in the simple past rather than in the present perfect (loc. cit.). In addition, ter Beek (2010: 43) observes the same phenomenon in Dutch, and in Greek it appears to be manifested in passages (22) and (23), with the perfect infinitive *βεβιωκέναι* being paraphrased, as it seems, with the aorist indicative *έβίωσε*.

73 Compare Section 6.2.

74 In this case, the term *perfect* is synonymous with the term *anterior perfect*, and the term *perfect meaning* refers to the perfect, which expresses an anterior event with a current relevance; compare fn. 4.

7 Conclusion

DeclarInfCl containing the aorist infinitive appear to display a decline after the end of the Classical period because Hellenistic/Roman and Early Byzantine non-literary papyri as well as a number of non-Atticistic literary texts seem to avoid such clauses. However, DeclarInfCl containing the aorist infinitive were relatively uncommon in Classical Greek as well as earlier in Homer. In addition, they were restricted to anterior perfective events, which supports the assumption that the aorist infinitive encoded aspect rather than tense.

I have suggested and examined here three hypotheses concerning the decline of the aorist infinitive in DeclarInfCl. It may seem plausible to assume that this phenomenon was related to the process of the infinitive disappearing, which evidently took place in Hellenistic/Roman and in Early Byzantine Greek. Hypotheses 1 and 2 relate the decline of the aorist infinitive in DeclarInfCl to this process. According to Hypothesis 1, it is uncommon for DeclarInfCl to convey temporal distinctions, which is why, in diachronic terms, the aorist infinitive (the function of which was to convey anteriority in Classical Greek) displays a decline in DeclarInfCl. According to Hypothesis 2, in diachronic terms DeclarInfCl display an increasing tendency towards containing stative verbs. As a consequence, the aorist infinitive was avoided in Hellenistic/Roman and Early Byzantine DeclarInfCl because such clauses tend to be non-stative.

Hypothesis 1 turned out to be least plausible of the three because, first, not much evidence supports the claim that it is highly uncommon for DeclarInfCl to convey temporal distinctions. For instance, at least some modern languages appear to convey temporality in DeclarInfCl as well. In addition, this hypothesis does not account for the fact that the majority of DeclarInfCl contain a stative infinitive in Early Byzantine Greek (as well as earlier in Hellenistic/Roman Greek). As a consequence, Hypothesis 2 appears more plausible than Hypothesis 1, particularly if it is assumed that all perfect infinitives occurring in DeclarInfCl remained stative up until Early Byzantine Greek. The latter assumption is consistent with some studies of the perfect in this period. It is nonetheless clear that the perfect infinitive could convey anteriority and occur in Hellenistic/Roman and Early Byzantine DeclarInfCl in the non-stative use. As a consequence, this paper argues that Hypothesis 3 is the most plausible of the three. According to this hypothesis, the decline of the aorist infinitive in DeclarInfCl was related to the aspectual nature of the aorist infinitive, which led to the perfect infinitive adopting the function of conveying anteriority in DeclarInfCl. This hypothesis is supported, first of all, by the fact that, in diachronic terms, the decline of the aorist infinitive in DeclarInfCl appears to coincide with an increase of the perfect infinitive in this construction. Sec-

ond, Hellenistic/Roman and Early Byzantine DeclarInfCl display a prominent tendency towards associating with anterior perfect infinitives. It could hardly be denied that perfect infinitives can refer to anteriority when used in DeclarInfCl because they can contain time specifications of anterior events, whereas sometimes the context may reveal that they do not refer to any current state. Finally, it can be argued that, from the synchronic perspective, it is not uncommon for DeclarInfCl to contain high frequencies of stative present infinitives and to convey temporal distinctions. As a consequence, Hypothesis 3 on the decline of the aorist infinitive in DeclarInfCl is consistent with high frequencies of DeclarInfCl containing stative present infinitives, while being strongly supported by other evidence.

List of Abbreviations

ABL	ablative	MEDP	mediopassive
ACC	accusative	NEG	negation
ADV	adverb, adverbial	NOM	nominative
AOR	aorist	NT	New Testament
ART	article	OPT	optative
CONJ	conjunction	PASS	passive
DAT	dative	PERF	perfect
DeclarInfCl	declarative infinitive	PL	plural
	clauses	PLPF	pluperfect, past perfect
F	feminine	PRES	present
FUT	future	PTCL	particle
GEN	genitive	PTCP	participle
Hell. Pap.	Hellenistic papyri	Rom. Pap.	Roman papyri
IMP	imperative	–S	non-stative
IMPERF	imperfect	SG	singular
IND	indicative	SUBJ	subjunctive
INF	infinitive	TransPerf	transitive perfect
M	masculine	VOC	vocative

References

- Adams, James N. 2003. *Bilingualism and the Latin Language*. Cambridge: Cambridge University Press.
- Aerts, Willem J. 1965. *Periphrastica*. Amsterdam: Hakkert.

- Bentein, Klaas. 2012a. The periphrastic perfect in Ancient Greek: a diachronic mental space analysis. *Transactions of the Philological Society* 110(2): 171–211.
- Bentein, Klaas. 2012b. Perfect periphrases in post-Classical and Early Byzantine Greek: an ecological-evolutionary account. *Journal of Greek Linguistics* 12(2): 205–275.
- Björck, Gudmund. 1940. *Ἡν διδασκων: Die periphrastischen Konstruktionen im Griechischen*. Uppsala: Almqvist & Wiksell.
- Blass, Friedrich, Albert Debrunner and Friedrich Rehkopf. 2001. *Grammatik des neutestamentlichen Griechisch (18th edn.)*. Göttingen: Vandenhoeck & Ruprecht.
- Burton, Ernest de Witt. 1898. *Syntax of Moods and Tenses in New Testament Greek*. Edinburgh: T & T Clark.
- Bybee, Joan L. and Östen Dahl. 1989. The creation of tense and aspect systems in the languages of the world. *Studies in Language* 13(1): 51–103.
- Chantraine, Pierre. 1927. *Histoire du parfait grec*. Paris: Honoré Champion.
- Chantraine, Pierre. 1953. *Grammaire homérique, vol. 2: Syntaxe*. Paris: Klincksieck.
- Comrie, Bernard. 1981. *Aspect*. Cambridge: Cambridge University Press.
- Crellin, Robert. 2014. The Greek perfect through Gothic eyes: evidence for the existence of a unitary semantic for the Greek perfect in New Testament Greek. *Journal of Greek Linguistics* 14(1): 5–42.
- Duhoux, Yves. 2000. *Le verbe grec ancien: Éléments de morphologie et de syntaxe historiques*. Louvain-la-Neuve: Peeters.
- Fanning, Buist M. 1990. *Verbal Aspect in New Testament Greek*. Oxford: Clarendon Press.
- Fournier, Henri. 1946. *Les verbes "dire" en grec ancien*. Paris: Klincksieck.
- Fykias, Ioannis and Christina Katsikadelis. 2013. The rise of 'subordination features' in the history of Greek and their decline. *Journal of Historical Linguistics* 3(1): 28–48.
- Gignac, Francis T. 1981. *A Grammar of the Greek Papyri of the Roman and Byzantine Periods, vol. 2: Morphology*. Milan: Istituto Editoriale Cisalpino—La Goliardica.
- Goodwin, William W. 1871. *Syntax of the Moods and Tenses of the Greek Verb (4th edn.)*. Boston and Cambridge: Sever, Francis & Co.
- Grenfell, Bernard P. and Arthur S. Hunt (eds.). 1899. *The Oxyrhynchus Papyri, vol. 2*. London: Egypt Exploration Fund.
- Haspelmath, Martin. 1992. From resultative to perfect in Ancient Greek. *Function* 11–12: 187–224.
- Haug, Dag T.T. 2004. Aristotle's *kinesis/energeia*-test and the semantics of the Greek perfect. *Linguistics* 42(2): 387–418.
- Haug, Dag T.T. 2008. From resultatives to anteriors in Ancient Greek: on the role of paradigmaticity in semantic change. In Thórhallur Eythórsson (ed.), *Grammatical Change and the Linguistic Theory: The Rosendal Papers*, 285–305. Amsterdam: John Benjamins.
- Hopper, Paul J. and Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56: 251–299.

- Horrocks, Geoffrey. 2010. *Greek: A History of the Language and its Speakers* (2nd edn.). Chichester: Wiley-Blackwell.
- Huddleston, Rodney and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Hult, Karin. 1990. *Syntactic Variation in Greek of the 5th Century A.D.* Göteborg: University of Göteborg.
- Humbert, Jean. 1960. *Syntaxe grecque*. Paris: Klincksieck.
- Iatridou, Sabine, Elena Anagnostopoulou and Roumyana Izvorski. 2000. Observations about the form and meaning of the perfect. In M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, 153–204. Cambridge MA: The MIT Press.
- Jannaris, Antonius N. 1968. *An Historical Greek Grammar: Chiefly of the Attic Dialect* (reprint). Hildesheim: Georg Olms.
- Joseph, Brian D. 1983. *The Synchrony and Diachrony of the Balkan Infinitive*. Cambridge: Cambridge University Press.
- Kavčič, Jerneja. 2009. A feature of Greek infinitive clauses dependent on verbs of saying and thinking. In Kateřina Loudová and Marie Žáková (eds.), *Early European Languages in the Eyes of Modern Linguistics*, 151–168. Brno: Masaryk University.
- Kavčič, Jerneja. Forthcoming a. Variation in expressing temporal and aspectual distinctions in complement clauses: a study of the Greek non-literary papyri of the Roman period. In Klaas Bentein, Mark Janse, and Jorie Soltic (eds.), *Variation and Change in Ancient Greek Tense, Aspect and Modality*. Amsterdam Studies in Classical Philology. Leiden: Brill.
- Kavčič, Jerneja. Forthcoming b. A diachronic perspective on the semantics of Acl clauses in Greek. In Łukasz Jędrzejowski and Ulrike Demske (eds.), *Infinitives at the Syntax-Semantics Interface: A Diachronic Perspective*. Berlin: Mouton de Gruyter.
- Kurzová, Helena. 1968. *Zur Syntaktischen Struktur des Griechischen: Infinitiv und Nebensatz*. Amsterdam: Hakkert.
- Leiwo, Martti. 2010. Imperatives and other directives in the Greek letters from Mons Claudianus. In Trevor Evans and Dirk D. Obbink (eds.), *The Language of the Papyri*, 97–119. Oxford: Oxford University Press.
- LSJ: Henry George Liddell, Robert Scott and Henry Stuart Jones. 1996. *A Greek-English Lexicon, with a Revised Supplement*. Oxford: Oxford University Press.
- Lucas, Sandra. 2012. *Polarizing the Future: The Development of an Aspectual Opposition in the Greek Future Tense*. Ph.D thesis, University of Copenhagen.
- Mandilaras, Basil G. 1973. *The Verb in the Greek Non-Literary Papyri*. Athens: Ministry of Education.
- Markopoulos, Theodore. 2009. *The Future in Greek: From Ancient to Medieval*. Oxford: Oxford University Press.
- Mayser, Edwin. 1934. *Grammatik der griechischen Papyri aus der Ptolemäerzeit, vol. 2.2: Satzlehre, Analytischer Teil*. Berlin: Mouton de Gruyter.

- McKay, Kenneth L. 1980. On the perfect and other aspects in the Greek non-literary papyri. *Bulletin of the Institute of Classical Studies* 27: 23–50.
- McKay, Kenneth L. 1981. On the perfect and other aspects in New Testament Greek. *Novum Testamentum* 56(4): 289–328.
- Mihevc, Erika. 1959. La disparition du parfait dans le grec de la basse époque. *Razprave SAZU, razred za filološke in literarne vede* 5: 93–154. Ljubljana: Slovenska akademija znanosti in umetnosti.
- Pinkster, Harm. 1990. *Latin Syntax and Semantics*. London: Routledge.
- Porter, Stanley E. 1989. *Verbal Aspect in the Greek of the New Testament with Reference to Tense and Mood*. New York: Peter Lang.
- Rijksbaron, Albert. 2006. *The Syntax and Semantics of the Verb in Classical Greek: An Introduction* (3rd edn.). Chicago: University of Chicago Press.
- Ruijgh, Cornelis J. 1991. Les valeurs temporelles des formes verbales en grec ancien. In Jandranka Gvozdanović and Theo Janssen (eds.), *The Function of Tense in Texts*, 197–217. Amsterdam: North-Holland.
- Ruijgh, Cornelis J. 2004. Over de gebruikswijzen van het Griekse perfectum, met speciale aandacht voor Plato's *Politeia*. *Lampas* 37: 24–45.
- Sevdali, Christina. 2006. *Infinitival Clauses in Ancient Greek: Overt and Null Subjects, the Role of Case and Focus*. Ph.D. thesis, University of Cambridge.
- Sevdali, Christina. 2007. What focus can do for subjects. *Proceeding of the 7th International Conference on Greek Linguistics*, <http://icgl7.ict.e.uowm.gr/Sevdali.pdf>. (accessed 13 November 2014).
- Slings, Simon R. 1994. Geschiedenis van het perfectum in het oud-Grieks. In Ronny Boogaart and Jan Noordegraaf (eds.), *Nauwe betrekkingen: Voor Theo Janssen bij zijn vijftigste verjaardag*, 239–247. Amsterdam: Stichting Neerlandistiek VU and Münster: Nodus Publikationen.
- Stowell, Tim. 1982. The tense of the infinitives. *Linguistic Inquiry* 13(3): 561–570.
- ter Beek, Janneke. 2010. Two futures in infinitives. In C. Jan-Wouter Zwart and Mark de Wries (eds.), *Structures Preserved: Studies in Syntax for Jan Koster*, 41–48. Amsterdam: John Benjamins.
- Thorley, John. 1989. Aktionsart in New Testament Greek: infinitive and imperative. *Novum Testamentum* 31: 290–315.
- TLG: *Thesaurus Linguae Graecae*. Retrieved from <http://stephanus.tlg.uci.edu/> (October 2015).
- Wackernagel, Jakob. 1904. Studien zum griechischen Perfectum. In *Programm zur Akademischen Preisverteilung*, 3–23, Göttingen. (Reprint in: Jakob Wackernagel, *Kleine Schriften*. Göttingen: Vandenhoeck & Ruprecht, 1953.)