In post-Classical Greek, declarative infinitive clauses (DInf) frequently contain a Perfect Infinitive (Pf. Inf.). According to Mandilaras (1973: p. 329), this is the most common form of DInf in Greek non-literary papyri. On the other hand, Rijksbaron (2006: p. 98) claims that such clauses were uncommon in earlier periods. It has been suggested that the spread of this construction is a result of intensified contacts between speakers of Latin and Greek, which is a hypothesis going back to Harry (1906: p. 69). Focusing on DInf containing the Pf. Inf. ἔσχηκέναι, this paper examines the Latin-contact hypothesis, as well as the hypothesis that the spread of this construction is an independent development of Ancient Greek (AG). It is claimed that the phenomenon can be accounted for in terms of independent development of AG. However, there is also evidence suggesting that some uses of the construction investigated were more acceptable for bilingual authors such as Polybius than for authors that had no significant contact with Latin.

Key words: bilingualism; Greek; Latin; perfect; infinitive

This article discusses an infinitive construction that appears to be quite common in Greek of the post-Classical period; namely, declarative infinitive clauses (DInf) containing the perfect infinitive (Pf. Inf.). It is particularly striking to observe that, according to Mandilaras (1973: p. 329), this is the most common form of DInf in the non-literary papyri. On the other hand, Rijksbaron (2006: p. 98) claims that such clauses were uncommon in earlier periods.

As is well known, the term “declarative infinitive” goes back to Kurzová (1968) and represents statements “concerning some state of affairs in the ‘real’ world” (Rijksbaron, 2006: p. 97). An example of an Ancient Greek (AG) DInf is:

1 Sometimes other terms are used instead of the term “declarative infinitive.” Mandilaras
The article focuses on DInf containing the Pf. Inf. of the verb ἔχω; namely, ἐσχηκέναι, such as in example (2):

(2) Οἱ δὲ Χαλδαῖοι τὴν μὲν τοῦ κόσμου φύσιν ἀιδιόν φασίν εἶναι καὶ μήτε ἐξ ἀρχῆς γένεσιν ἐσχηκέναι (DS 2.30.1)

‘The Chaldeans say that the nature of the world is eternal and that it has got no beginning.’

Given that ἔχω is a very common verb in AG, it is assumed that corpora of AG literary and non-literary texts contain sufficient material to make generalizations about diachronic developments concerning DInf containing the Pf. Inf. examined (as well the Pf. Inf. in more general terms). Nevertheless, it can be observed that DInf containing the Pf. Inf. ἐσχηκέναι do not occur in the aforementioned corpora before Hellenistic Greek (HG). This may seem to be the expected state of affairs because the perfect, as is well known, was not common before the end of Classical Greek (CG). This period saw the emergence of the “resultative perfect” (RP), which indicates a past event and its continuing relevance for the subsequent state of affairs (cf. Rijksbaron, 2006: p. 37; Chantraine, 1927; Comrie, 1981: p. 52). The perfect ἔσχηκα appears to be a RP, given that it usually implies a reference to continuing relevance of having (or not having) obtained something, as in example (2); see also LSJ, s.v. ἔχω.

However, it has been suggested that the emergence of the construction investigated is related to a more complex sociolinguistic situation. As is
well known, CG lacked an Aor. Inf. (as well as a Pf. Inf.) of the verb ‘to be’. According to Harry (1906: p. 69), the contact between Latin and Greek led to the emergence of the Pf. Inf γεγονέναι in DInf, which adopted a function corresponding to the Latin Pf. Inf. *fuisse* in this construction. Example (3) can be used in support of this assumption (cf. Harry, loc. cit.):

(3) Πότερον δοκεῖ σοι εἶναι ἄνθρωπος εὐδαίμων, εἰ δὲ μή, γεγονέναι ἢ ἔσεσθαι, ἢ ἀδύνατον ἡγῇ τὸ τοιοῦτον περὶ ἄνθρώπου, ὡσπερ εἰ τις ἀθάνατον ἄνθρωπον λέγοι εἶναι (D. Chr. 23.1)

‘Do you believe man is happy, and if not, that he has been or will be happy, or do you think that this cannot be the case with a man, the same as if someone said that he is immortal?’

In this case, the only difference between the present infinitive (Pres. Inf.) εἶναι, the future infinitive (Fut. Inf.) ἔσεσθαι, and the Pf. Inf. γεγονέναι seems to concern the fact that, whereas the former two refer to a simultaneous and to a posterior state (namely, to the state of being), the latter refers to an anterior state. (Stative verbs or states are mostly durative verbs characterized by a lack of change in meaning; e.g., ‘be’, ‘have’, ‘can’.) The three infinitives thus appear to correspond to the Latin infinitives *esse*, *futurum esse* and *fuisse*, respectively. It can also be argued that the Pf. Inf. γεγονέναι is used in a function uncharacteristic of the original function of the AG perfect. Namely, it refers to an anterior state that does not appear to have any consequences for the subsequent state of affairs. (The latter would be expected if the Pf. Inf. were used in example (3) in its original function.) As a consequence, it seems that this use of the Pf. Inf. cannot be accounted for in terms of the AG RP, at least not in terms of its original meaning.

Nevertheless, Harry (loc. cit.) does not provide any evidence for his hypothesis except for the observation that the function of the AG Pf. Inf. γεγονέναι resembles the Latin Pf. Inf. *fuisse*. The assumption that Latin had an influence on the Greek perfect is open to dispute according to Adams (2003: p. 427) because correspondences in the use of the perfect in Latin and in Greek that are displayed in some periods could be the result of an independent development. The same applies to the construction investigated: because it concerns the syntax of the AG perfect, it could be a matter of an independent development rather than a contact-induced change.

On the other hand, Dubuisson (1985: pp. 240‒43) finds Latin influence in the use of the perfect in Polybius, who was arguably bilingual. Although some of his claims have been argued against (e.g., Weir, 1987; Adams, loc. cit.) it has to be stressed that the earliest and most certain cases of the construction investigated in this article occur in this and in other bilingual writers. Moreover, at least some of these cases display semantic properties that cannot be accounted for in terms of the original semantics of the AG RP
because the Pf. Inf. ἐσχηκέναι is used in the same function as appears to be the case with the Pf. Inf. γεγονέναι in example (3). As a consequence, the discussion of this construction cannot avoid addressing whether it was contact-induced.

Moreover, the assumption that the emergence of the construction investigated and its semantic properties concern the internal development of Greek raises an important theoretical issue. AG seems to display clear instances of the aorist infinitive (Aor. Inf.) conveying anteriority in DInf. An example is passage (4):

(4) εὐτυχῆ μὲν οὖν οὐκ ἂν ἔγωγε φήσαιμι τὴν στρατηγίαν αὐτῷ γενέσθαι (X., HG 7.5.8)

‘So I would not say that the campaign turned out fortunate for him.’

In this case, the context indicates that the Aor. Inf. refers to anteriority: in order to justify his claim that the campaign was unfortunate, the author (Xenophon) quotes a number of past actions of Epameinondas (the commander), thus evidently placing the campaign in anteriority. Such instances appear to have led Mihevc (1959: p. 99) to claim that in examples such as (3) the Pf. Inf. replaced the Aor. Inf. in post-CG. However, it is not clear why this substitution took place. If it is assumed that the Aor. Inf. could convey anteriority in AG DInf, it seems that the Aor. Inf. γενέσθαι of the verb γίγνομαι ‘become’ rather than the Pf. Inf. γεγονέναι could just as well be reinterpreted at a certain stage as an infinitive of the verb ‘to be’, referring to anteriority. Note that the phrase “the campaign turned out fortunate for him” in passage (4) can also be plausibly interpreted as “was fortunate for him.” Thus in passage (3) above, one could expect the Aor. Inf. γενέσθαι in place of the Pf. Inf. γεγονέναι, referring to an anterior state. As claimed in Section 4, the same problem concerns the Pf. Inf. ἐσχηκέναι and its relation to the Aor. Inf. σχεῖν and is related to the aspectual nature of the AG Aor. Inf.

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4 Other instances of Aor. Inf. referring to anteriority in a DInf: Rijksbaron (2006: p. 97); Duhoux (2000: p. 282). DInf containing the Aor. Inf. (which refers to anteriority) are already attested in Homer (cf. Chantraine, 1953: p. 306). An anonymous reviewer rightly observed that Chantraine’s account is inconsistent. Namely, he claims that in DInf, the Aor. Inf. expresses “the pure and simple notion of the verb” (“l’infinitif aoriste, exprimant l’idée verbale pur et simple”), as well as that, in principal, it refers to anteriority (“et a en principe le sens du passé”); loc. cit. This is a reflection of the problem that concerns the fundamental value of the aorist stem and is discussed in Section 1.2.

5 See X., HG 7.5.8–7.5.9.

6 See Schwyzer-Debrunner (1959: pp. 263–264): the RP contains a reference to the present in CG. However, this account needs to be taken with caution because it is based on the concept of the so-called object-resultative perfect. This concept has often been criticized; see Rijksbaron (2006: p. 37).
The aim of this article is to account for the emergence of DInf containing the Pf. Inf. ἐσχηκέναι and for the semantic properties displayed in the earliest attested instances of the construction. In this connection, it also seeks to clarify whether the construction investigated was contact-induced or whether its emergence is a result of the internal development of Greek. The article argues that the phenomena examined are related to the aspectual nature of the AG Aor. Inf., which led to the Pf. Inf. adopting (in some cases) the function of conveying anteriority in DInf. However, it is also observed that the construction investigated can refer to anterior states in mostly bilingual authors. This tendency could be an instance of Latin influence.

In order to assess the possible impact of bilingualism on the emergence of the construction investigated and on its semantic properties, the article focuses on its earliest Hellenistic instances. It is assumed that, in the subsequent centuries, the construction could have undergone other influences such as the impact of the written tradition or, if the emergence of the construction investigated appeared to be contact-induced, its spread among monolingual speakers of Greek (cf. Adams, 2003: p. 327). Although it is generally believed that the influence of Latin on Greek was limited even in the Roman period (cf. Horrocks, 2010: p. 127), this should not be ruled out at least as a theoretical option.

1. The origins of the construction: DInf in CG

1.1. The verb ἔχω and its infinitives in CG

This section discusses how temporal distinctions were conveyed in CG DInf. As claimed in Section 4.2, the restructuring of this system can account for the emergence and the semantic properties of the construction investigated.

As is well known, the verb ἔχω had a Fut. Inf., an Aor. Inf., and a Pres. Inf. in CG. These infinitives appear to occur in DInf in a temporal function (although this does not seem to have been the fundamental value of all of these infinitives, as is shown in Section 1.2). Whereas the Fut. Inf. refers to posteriority, the Aor. Inf. refers to anteriority and the Pres. Inf. refers to simultaneity. The Pres. Inf. ἔχειν referring to simultaneity is shown in example (1), and the Fut. Inf. and Aor. Inf. in examples (5) and (6).

(5) ἢν οἴηταί τι πλέον σχήσειν (Th. 4.59.2)
‘If he thinks that he will get/have something more.’

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7 Cf. Chantraine (1968: s.v. ἔχω 1; LSJ: s.v. ἔχω 1).
As already mentioned, CG also saw the gradual spread of the RP. Nevertheless, DInf containing the Pf. Inf. ἐσχηκέναι appear to be uncommon before HG, which is why they are examined in the sections below.

The Aor. Inf. usually refers to anteriority in AG DInf and this is also clear in example (6). However, it seems that it has a punctual rather than a stative value in this case. In other words, the meaning of the AG Aor. Inf. σχεῖν corresponds to ‘he obtained/got’ rather than ‘he had’. Moreover, this seems to be the case in other examples of DInf containing this infinitive, although at least some of them may be characterized as ambiguous. For instance, the infinitive σχεῖν in example (7) could perhaps be interpreted as ‘he had’ rather than ‘he got’.

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Table 1: DInf containing the Aor. Inf. σχεῖν (number of instances per century); data according to TLG

<table>
<thead>
<tr>
<th>Century</th>
<th>Instances</th>
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<tbody>
<tr>
<td>8 BC</td>
<td>0</td>
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<tr>
<td>7 BC</td>
<td>0</td>
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<td>6 BC</td>
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<td>5 BC</td>
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<td>4 BC</td>
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These low frequencies of DInf containing the Aor. Inf. σχεῖν are consistent with the claim that in DInf it refers to anterior punctual events rather than to anterior states. It seems reasonable to assume that, in general, states such as ‘have’ are very frequent in a language, whereas non-stative (or terminative) verbs such as ‘obtain/get’ are less frequent.\(^8\)

\(^8\) According to the Perseus Digital Library, ἔχω ‘have, hold’ is significantly more frequent in AG than, for instance, λαμβάνω ‘take, obtain’, with the frequencies of the former ranging between 0.35 and 0.54% of words, and the frequencies of the latter be-
However, this also raises the question of how anterior states of having something were conveyed in CG DInf. AG grammars usually state that a Pres. Inf. is used in a DInf when such a DInf refers to anterior durative/repeating events (cf. Rijksbaron, 2006: p. 106; Goodwin, 1871: p. 15). As a consequence, DInf appear to contain the infinitive ἔχειν rather than σχεῖν when referring to anterior states (of having something). Because the Pres. Inf. ἔχειν usually refers to simultaneity in DInf (see example (1)), the temporal reference of such cases is deduced from the context (cf. Goodwin, loc. cit.), as in example (8). Note that the Pres. Inf. ἔχειν is associated with the adverb τέως ‘until then’, thus indicating that the DInf refers to anteriority:

(8) (φασί) . . . Κροῖσον δὲ τέως μὲν σιγὴν ἔχειν εἰρωτώμενον, μετὰ δὲ, ὡς ἠναγκάζετο, εἰπεῖν (Hdt. 1.86)
‘(they say) . . . that Croesus was silent until then, albeit asked, but later, because he was forced, he said’

This is another indication supporting the assumption that the Aor. Inf. σχεῖν, when used in DInf, refers to non-stative (or terminative) ‘obtain/get’ rather than to stative ‘have’.

To sum up, both the Pres. Inf. ἔχειν and the Aor. Inf. σχεῖν could convey anteriority in CG DInf, with the former corresponding to anterior states (‘have’) and the latter to anterior punctual events (‘obtain/get’). However, the most common function of the Pres. Inf. ἔχειν (when occurring in DInf) was to refer to simultaneity rather than to anteriority.9 As claimed in Section 4.2, this state of affairs could be related to the emergence and the semantic properties of the construction investigated.

1.2. A related theoretical issue

Section 1.1 argued that the Aor. Inf. σχεῖν was punctual in CG (even when used in DInf). This accounts for what appears to be an avoidance of the latter to be associated with DInf referring to anterior states, thus indicating that the Aor. Inf. encoded aspect in AG. As a consequence, the temporal reference of DInf containing the Aor. Inf. is accounted for in terms of its aspectual properties. This has been suggested, for instance, by Sevdali (2007:

Nevertheless, it seems that the issue of whether AG verb stems encode aspect or tense remains open. Although it has often been claimed that they encode aspect, this view is “unteachable” according to Rijksbaron (2006: p. 2). In the case of the infinitive, it appears established that the Fut. Inf. encoded tense rather than aspect; however, it is also widely accepted that the AG Fut. Inf., as well as the future stem in general, are exceptional in the respect that they encode tense without displaying aspectual distinctions. On the other hand, it is less clear whether the Aor. Inf. encodes aspect or tense. DInf arguably speak in support of its temporal value, given that in examples such as (4) and (6) the Aor. Inf. refers to anteriority. A recent example of the view that all AG infinitives encode tense is Fykias and Katsikadeli (2013: p. 39), who claim that AG infinitives can be shown to be tensed. Another example is Miller (2002: p. 34), who refers to AG when claiming that infinitives can have tense morphology and that, when this applies, they can be used exactly like fully tensed complement clauses.

However, the claim that the Aor. Inf. encodes relative tense (namely, anteriority) is highly controversial. As already mentioned, Rijksbaron (2006: p. 2) does not seem to accept the claim that AG verb stems are aspectual. Nevertheless, it seems worth emphasizing that elsewhere he nonetheless defines AG verb stems in aspectual terms, claiming that “the aorist stem signifies that a state of affairs is completed (confective value)”; Rijksbaron (2006: p. 1). In addition, it was mentioned earlier that Sevdalii (2007) argues in support of the aspectual value of the AG Aor. Inf. \(^\text{10}\) Another example of such a view is Duhoux (2000: p. 282), who calls the temporal use of the Aor. Inf. (as well as of other AG infinitives) in DInf “exceptional.” Moreover, the construction investigated appears to support the assumption that the Aor. Inf. encoded aspect rather than tense: as argued in Section 4.2, this assumption can account for the emergence of the Pf. Inf. in DInf, as well as for the semantic properties of this construction, as seen in HG.

**1.3. The Latin Pf. Inf. and the AG Aor. Inf. compared**

There is an important distinction between Latin and Greek with regard to the fact that all Latin infinitives evidently encode tense (Pinkster, 1990:

\(^{10}\) As an anonymous reviewer added (in a reference to Muchnová, 2005), the temporal reference of the Aor. Inf. is a matter of iconicity and does not concern its fundamental value.
p. 219), whereas this does not seem to be the case in AG. The Pf. Inf. conveys anteriority in Latin and can also refer to anterior states. On the other hand, DInf containing the Aor. Inf. σχεῖν appear to indicate that the AG Aor. Inf cannot convey anterior states; see Section 1.1. Note that in (Latin) example (9), the DInf contains the adverb *semper* ‘always’, thus clearly indicating that the Pf. Inf. *habuisse*, which occurs in DInf, refers to an anterior state (its stative/durative value being indicated by *semper* ‘always’).

(9) *ex quo intellectum est . . . eos voluntatem semper eandem, libertatem non eandem semper habuisse* (Cic., *Sest.* 69.8)
‘this is how we can see that . . . they always had the same will, however, they did not have the same freedom’

In addition, DInf containing the Pf. Inf. *habuisse* appear to be significantly more common in Latin than is the case with DInf containing the Aor. Inf. σχεῖν in AG. For instance, Cicero’s works contain more than sixty instances of this Latin construction, whereas AG authors dating back to the fifth century BC display only four instances of the Greek construction (see Table 1). As claimed in Section 4.1, this difference between Greek and Latin DInf could be related to the emergence and the semantic properties of the construction investigated.

2. DInf containing the Pf. Inf. ἐσχηκέναι

2.1. Earliest instances of ἐσχηκέναι in DInf

As already mentioned, DInf containing the infinitive ἐσχηκέναι were uncommon in CG. As shown in Table 2, the earliest cases go back to the third century BC.

Table 2: DInf containing the Pf. Inf. ἐσχηκέναι (number of instances per century); data according to TLG

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This table does not contain examples occurring in later authors (e.g., in the *Suda* lexicon) that are ascribed to sixth-century BC authors because such examples are not necessarily direct quotations.
On the one hand, this is the expected state of affairs from the perspective of the history of Greek. As already mentioned at the beginning of this article, the RP was not common before the end of CG. Nevertheless, it can be observed that most of the earliest occurrences of the construction investigated go back to authors that arguably were in contact with Latin. One of these authors was Polybius, whose work provides the earliest occurrences of DInf containing the Pf. Inf. ἐσχηκέναι, as in example (10) (cf. Plb. 12.25, 18.3, 18.37, and 23.12):

(10) ἐμοὶ δὲ δοκεῖ Πόπλιος Λυκούργῳ τῷ τῶν Λακεδαιμονίων νομοθέτῃ παραπλησίαν ἐσχηκέναι φύσιν καὶ προαίρεσιν (Plb. 10.2)
‘It seems to me that Publius had a similar nature and conduct as the Spartan lawgiver Lycurgus.’

Another text from Early HG is a fragment of Macho Comic, who provides one instance of the construction:

(11) Λέγεται δὲ ἕκείνη τὴν γυναῖκα ἐσχηκέναι πυγὴν πάνω καλὴν ἣν ποτ’ ἡξίου λαβεῖν ὁ Δημοφῶν (Macho ap. Ath. 13.45)
‘They say that the woman, whom once Demophon was willing to take, had a very nice bottom.’

However, example (11) is a quotation from a much later author (namely, Athenaeus), which is why it may not necessarily represent the state of affairs in Early HG.

As Table 2 shows, there are no such examples in the second-century BC literary authors, with the first century BC providing additional instances of the construction examined. Most cases (11) go back to Diodorus Siculus; see example (2), cited at the beginning of this article. In addition, Dionysius of Halicarnassus provides one such instance:

(12) ἐξ ὧν πολλὰς καὶ μεγάλας ἔδοξεν ἐσχηκέναι τὸ κοινὸν ὑφελείας (DH 4.37)
‘It seemed that the public had many benefits from it.’

Finally, an example of this construction from the first century BC goes back to Philo Judaeus:
2.2. Earliest instances of the construction investigated in the light of bilingualism

The fact that the earliest certain instances of the construction investigated that are attested in HG go back to authors that arguably were in contact with Latin seems particularly striking. It is worth noting that the perfect indicative of the same verb already occurs in CG (cf. Pl., Ap. 20d). As a consequence, it could be argued that the contact between Latin and Greek led to the emergence of the Pf. Inf. ἐσχηκέναι in DInf. Namely, it is clear that Polybius, who provides the earliest instances of this construction, was bilingual; cf. Adams (2003: p. 427). In addition, most of other early examples go back to authors that arguably knew Latin, namely to Dionysius of Halicarnassus and to Diodorus Siculus (cf. Dubuisson, 1979: pp. 91‒93; de Jong, 2008: p. 60; Sacks, 1990: pp. 114, 189). The latter two refer to their knowledge of Latin themselves:

(14) ἐγὼ καταπλεύσας εἰς Ἰταλίαν . . . διάλεκτόν τε τὴν Ῥωμαϊκὴν ἐκμαθὼν καὶ γραμμάτων τῶν ἐπιχωρίων λαβὼν ἐπιστήμην (DH 1.7.2)
‘After coming to Italy . . . and having learned the Roman dialect and having acquired knowledge of the local letters’

(15) ἡμεῖς γὰρ ἐξ Ἀργυρίου τῆς Σικελίας ὄντες, καὶ διὰ τὴν ἐπιμιξίαν τούς ἐν τῇ νήσῳ πολλὴν ἐμπειρίαν τής Ῥωμαίων διαλέκτου περιπεποιημένοι, πάσας τὰς τῆς ἡγεμονίας ταύτης πράξεις ἀκριβῶς ἀνελάβομεν ἐκ τῶν πάρ’ ἐκείνων ὑπομνημάτων (DS 1.4.4.)
‘since I come from Argyrion in Sicily and since I had many contacts with the inhabitants of the island, which is why I also learned well the Roman dialect, I studied in detail the achievements of their rule from their own documents’

On the other hand, there are no clear indications that Macho, who provides another early example of the construction investigated, knew Latin. He was a Greek from Sycion or Corinth and was active as a writer in (Hellenistic) Alexandria (cf. Nesselrath, 1996). In general, it does not seem that there was any significant contact between Latin and Greek in Early Hellenistic Egypt (and Greece); cf. Rochette (2010: pp. 282‒283). However, this evidence is perhaps less significant, given that it goes back to a much later author, as already mentioned. A similar observation concerns Philo, whose work provides one instance of the construction investigated; see example (13). This case appears less significant in terms of the emergence of the
construction investigated, given that it goes back to a period much later than earliest instances.

In general, the extent to which Latin influenced the language of the afore-mentioned bilingual authors remains open. For instance, Adams (2003: p. 427) appears convinced about Dubuisson’s claims regarding Latin influence in Polybius but tries to be prudent in accepting that “those Latinate features found in the writings of bilingual authors are necessarily Latinate if they turn up as well in the Greek written by monolinguals”. As already mentioned, at least some of these claims are also argued against in Weir (1987), who nonetheless largely accepts the assumption that Polybius’s language was influenced by Latin. According to Dubuisson (1979: p. 92), the language of Dionysius of Halicarnassus displays clear instances of Latin influence; however, this is not necessarily the case with Diodorus Siculus (loc. cit).

Nevertheless, it appears to be widely accepted that Polybius, Dionysius of Halicarnassus, and Diodorus Siculus knew Latin reasonably well, although Greek rather than Latin was their first language. Consequently, there are also reasons to believe that Latin could have had an influence on their syntax. According to Thomason Grey (2003: p. 691), the process in which “features are incorporated into A by native (L1) speakers of A” is called borrowing. In this case, “the first and most common interference features will be non-basic lexical items, followed (if contact is sufficiently intense) by structural features and perhaps also by basic vocabulary” (loc. cit.). Although, according to Horrocks (2010: p. 128), the issue of structural borrowing from Latin to Greek is controversial, in theoretical terms this option is acceptable: because there is evidence suggesting that the vocabulary of bilingual HG authors underwent Latin influence (cf. Dubuisson, 1985: pp. 117–254; Weir, 1987: p. 59), it is possible that structural borrowing from Latin to Greek took place as well in these authors.

2.3. The construction examined in semantic terms

This section argues that the construction examined displays semantic properties that do not seem to be directly linked to the semantics of the RP in CG. In addition, these semantic properties have parallels in DInf containing the Pf. Inf. γεγονέναι, which were referred to at the beginning of this article.

As argued at the outset, one can assume that the original meaning of the Pf. Inf. ἐσχήκεναι was that of a completed past event and its continuing relevance. Such examples are also attested in HG, such as in examples (2) and (12). However, this does not seem to apply in the following case:
BILINGUALISM AND THE SPREAD OF AN INFINITIVE CONSTRUCTION

(16) Φιλοποίμην ὁ τῶν Ἀχαιῶν στρατηγός συλληφθεὶς ὑπὸ Μεσσηνίων ἀνῃρέθη φαρμάκῳ, ἀνὴρ γενόμενος οὐδενὸς τῶν πρὸ τοῦ κατ’ ἀρετὴν δεύτερος, τῆς τύχης μέντοι γ’ ἥττων, καίτοι δόξας ἐν παντὶ τῷ πρὸ τοῦ βίῳ συνεργόν ἐσχηκέναι ταύτην (Plb. 23.12) ‘The Achaean leader Philopoimen was poisoned after being caught by the Messenians, a man whose virtue was no worse than the virtue of any man before him. However, he was not of the same luck, although it seemed that the latter was his helper in his whole life before.’

The Pf. Inf. ἐσχηκέναι occurring in this example refers to an anterior state, which appears to be emphasized by the adverbial phrase ἐν παντὶ τῷ πρὸ τοῦ βίῳ ‘in his whole life before’ (indicating that the anterior situation was durative). This anterior state ended in the past and it does not appear to have had any continuing relevance (the latter corresponding with the original notion of the RP). Namely, Philopoimen was poisoned (ἀνῃρέθη φαρμάκῳ), which is why the state of having good luck (denoted by the DInf) was ended for good. As a consequence, the semantic properties of the respective DInf largely correspond to the use of the Pf. Inf. γεγονέναι, as observed in example (3).

This use of the Pf. Inf. ἐσχηκέναι occurs in other HG authors as well, another instance being example (17):

(17) οὗτος οὖν φησίν . . . διὰ . . . ταύτας τὰς αἰτίας αἰεὶ πολεμικῶς ἐσχηκέναι Καδουσίους πρὸς Μήδους . . . μέχρι οὗ Κῦρος εἰς Πέρσας μετέστησε τὴν ἡγεμονίαν (DS 2.33.6) ‘He says that . . . this was the reason why the Cadusians always had a warlike spirit towards the Medians, up until when Cyrus brought power to the Persians.’

As in the previous example, the DInf (ἀεὶ πολεμικῶς ἐσχηκέναι Καδουσίους πρὸς Μήδους) in this case refers to an anterior state, with its durative value being indicated by ἀεὶ ‘always’. Moreover, the adverb πολεμικῶς indicates that the Pf. Inf. ἐσχηκέναι is used intransitively. This use of the verb ἔχω is arguably stative because it usually corresponds to the verb ‘to be’ (cf. LSJ, s.v. ἔχω). In example (17), it appears to refer to the hatred that the Cadusians felt towards the Medians rather than to them actively fighting against the Medians because it is not very likely that a group of people were actively in war against another group of people for such a long period of time. Finally, it does not seem that this anterior state has any long continuing relevance because the context shows that it was ended with Cyrus bringing power to the Persians (μέχρι οὗ Κῦρος εἰς Πέρσας μετέστησε τὴν ἡγεμονίαν).

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12 This example refers to a report by the CG historian Ctesias. Nevertheless, it is treated here as a HG example rather than a CG one because it cannot be argued that this is a direct quotation.
In addition to examples (16) and (17), the construction examined appears to refer to an anterior state in examples (10) and (11); see Section 2.1. Other DInf containing the Pf. Inf. ἐσχηκέναι can be accounted for in terms of the original semantics of the RP, although some may seem ambiguous. For instance, the Pf. Inf. ἐσχηκέναι in example (13) can be interpreted as ‘he had one house’ or as he ‘got one house’. Most examples in which the Pf. Inf. ἐσχηκέναι refers to an anterior state go back to authors that knew Latin. However, this does not apply to example (11), whose author is Macho. This example is further commented on in Section 4.3.

3. The construction examined in Greek non-literary documents

According to Horrocks (2010: p. 97), the language of Polybius represents the “official Koine” rather than an archaizing form of literary Attic. In addition, Mihevc (1959: p. 108) observes that DInf containing the Pf. Inf. ἐσχηκέναι are frequently used in (mostly) official non-literary papyrus documents. This is illustrated in example (18):

(18) ὁμολογῶ ἐσχηκέναι παρὰ σου πυροῦ γενήματος τοῦ διελθόντος ἔτους μέτρῳ δεκά(τῳ) ἀρτάβας ἕξ (POxy 75.5061, third century AD)
‘I acknowledge that I have received from you from the harvest of the last year six artabas of wheat by tenth measure.’

Although the reading of example (19) may not be entirely certain, it seems that these expressions go back to Early HG:

(19) ὁμολογῶ ἐσχηκέναι παρ’ ὑμῶν τοὺς τεσσάρακον πέντε μετρητὰς τοῦ οἴνου (PKoeln 5.220, 208‒191 BC)
‘I agree that I have received from you four hundred five measures of wine.’

These instances show that that the emergence of the construction investigated goes back to the language of HG official documents. Thus, it likely results from internal processes of AG because it appears to be widely accepted that Egyptian papyrus documents dating back to HG display no significant Latin influence (cf. Rochette, 2010: pp. 282–293). Moreover, Horrocks (2010: p. 146) does not exclude the possibility that even in a translated official document, dating back to a period of more intense contact between Latin and Greek (namely, to the second century AD), the use of the infinitive was a matter of internal development of Greek.13

13 Nevertheless, it appears that even in HG official documents the influence of Latin cannot be entirely excluded. According to Adams (2003: pp. 545–576), Latin and
It can also be claimed that, in examples (18) and (19), the Pf. Inf. retains its original meaning in the sense of continuing relevance of a past event. Namely, for the person signing the contract, the fact that he has received something clearly has a present relevance because this is the reason why he is signing the document.

On the other hand, it does not seem that these expressions can account for DInf referring to anterior states. As argued above, this use of the Pf. Inf. is displayed in examples (10), (11), (16), and (17), as well as in example (3) (which contains the Pf. Inf. γεγονέναι).

4. The two hypotheses on the construction investigated revisited

4.1. The construction investigated as a contact-induced change

As already mentioned at the beginning of this article, the assumption that the construction investigated emerged in contact with Latin goes back to Harry (1906: p. 69). Subsequently, Section 3 showed that the emergence of the construction investigated is a matter of the internal development of AG rather than a contact-induced change, given that it is attested in the non-literary documents dating back to HG. However, it does not seem that these instances of the construction can account for the Pf. Inf. ἐσχηκέναι referring to anterior states. Because most certain instances of this stative use of the construction occur in bilingual HG authors, it could be argued that it occurred under Latin influence.

Moreover, Section 1.3 showed that a difference between DInf in CG and in Latin concerns the fact that, whereas DInf containing the Pf. Inf. habuisse could refer to anterior states in Latin, Greek had no specialized infinitive for this function. The Aor. Inf. σχέιν appears to refer to ‘obtain/get’ rather than ‘have’, whereas the Pres. Inf. ἔχειν refers to anterior states only exceptionally, when the contexts show that the clause refers to anteriority. As a consequence, Polybius (and other Latin-speaking HG authors) perhaps introduced a stative infinitive of the verb ἔχω into their language, corresponding to the Latin Pf. Inf. habuisse.

However, it remains unaccounted for why the Pf. Inf. was introduced in DInf rather than, for instance, the Aor. Inf. In other words, it is not clear

Greek occurred together in judicial practice, with Latin (rather than Greek) being the language of the final decision. The assumption that the emergence of the construction investigated (as well as its semantical properties) concern the internal development of AG is further corroborated in Section 4.3.
why bilingual authors such as Polybius related the Latin Pf. Inf. to the AG Pf. Inf.\textsuperscript{14} It seems reasonable to assume that, based on examples such as (7), which appear to be ambiguous in terms of whether they refer to anterior punctual events or states, the Aor. Inf. $\sigma\chi\epsilon\iota\nu$ could be reinterpreted in HG, leading to adopting the function of conveying anterior states. As argued in the next section, this phenomenon concerns the structure of Greek rather than its contact with Latin.

\subsection*{4.2. The construction investigated as an internal development of AG}

As already mentioned, it is widely accepted that the spread of the perfect concerns late CG and HG, and also that in this process the perfect tended towards omitting its stative meaning and retaining the past reference; in other words, it tended towards functionally merging with the aorist. As a result, Modern Greek employs the AG perfect $\varepsilon\upsilon\rho\eta\kappa\alpha$ in what appear to be the same functions as AG employed the aorist $\varepsilon\upsilon\rho\omicron\nu$ (cf. Horrocks, 2010: p. 302). It is not usually assumed that Latin had any significant impact on this process. For instance, it is frequently claimed that the earliest stages of this development go back to the period in which Latin could not have had any influence in Greek; that is, in CG or in early HG (cf. Chantraine, 1927; Horrocks, loc. cit.). Moreover, this appears to be a common phenomenon that frequently affects the perfect (cf. Comrie, 1981: pp. 52–55).

As a consequence, there are aspects of the construction investigated that can clearly be accounted for in terms of internal Greek development. As already mentioned in Section 2.1, this process (rather than contact between Latin and Greek) can account for the fact that the Pf. Inf. $\dot{\epsilon}\sigma\chi\eta\kappa\epsilon\nu\alpha$ does not become common in Greek before HG. Moreover, it seems that the same process could account for the fact that in this construction $\dot{\epsilon}\sigma\chi\eta\kappa\epsilon\nu\alpha$ refers to anteriority without implying a reference to continuing relevance of past events. In addition, it was claimed in Section 4.1 that even if it is assumed that DInf, when referring to anterior states, underwent the influence of Latin, it is not clear why the Greek construction employs the Pf. Inf. ($\dot{\epsilon}\sigma\chi\eta\kappa\epsilon\nu\alpha$) rather than the Aor. Inf. ($\sigma\chi\epsilon\iota\nu$) in this function. This is another aspect showing that the assumption about Latin influence cannot fully account for the use of the Pf. Inf. $\dot{\epsilon}\sigma\chi\eta\kappa\epsilon\nu\alpha$ in DInf.

\footnote{As an anonymous reviewer added, the AG Aor. Inf. (rather than the AG Pf. Inf.) is the closest (in semantic terms) to the Latin Pf. Inf. Of course, the two forms (namely, the AG Pf. Inf. and the Latin Pf. Inf.) are related to one another by the virtue of their grammatical terms. Perhaps this is what led Harry (loc. cit.) to assume that Latin had an influence on Greek. However, it does not seem that this could be a factor influencing the natural development of a language.}
Section 1.1 argued that the Aor. Inf. σχεῖν corresponds to ‘obtain/get’ rather than ‘have’ when occurring in DInf. As a consequence, it can be assumed that the Pf. Inf. ἐσχηκέναι occurred in DInf with reference to anterior states because the use of the Aor. Inf. in DInf was restricted to anterior punctual events. Instead of assuming that contact between Latin and Greek led to the Pf. Inf. adopting the function of conveying anterior states in DInf, this phenomenon can thus be accounted for in terms of the aspectual value of the Aor. Inf. σχεῖν. This is further supported by what appears to be a widely accepted view about the relation between the function of the ΔΓ infinitive in DInf and the function of their respective indicative forms in finite clauses. An infinitive form occurring in DInf can thus correspond to the function of the respective indicative form in finite clauses: for instance, the Fut. Inf. has the same function in DInf as the Fut. indicative in finite clauses. However, the Pres. Inf. occurs in DInf in both the function of the present indicative and the imperfect, given that the augment is not available in the case of the infinitive (cf. Duhoux, 2000: p. 282; Rijksbaron, 2006: p. 106): one example of a Pres. Inf. (ἔχειν) referring to anteriority is example (8). Thus it can be assumed that the Pf. Inf., after emerging in DInf (in HG), could occur in the function of the Pf. indicative (which originally denoted present states), as well as in the function of the pluperfect (Plpf.) indicative (which denoted past states). In other words, a DInf containing the Pf. Inf. ἐσχηκέναι, which refers to an anterior state, can be accounted for as an instance of a DInf corresponding to a finite clause containing a Plpf.\footnote{An anonymous reviewer commented that, even in this case, one cannot entirely exclude the impact of Latin. Namely, DInf prevailed over finite complement clauses in Latin. This could lead, first, to bilingual authors using DInf more frequently than monolingual authors. Bilingual authors thus needed to introduce a variety of aspectual/temporal distinctions into DInf because they used this type of complement clause so often (if not exclusively). The explanation is based on the assumption that the tendency towards DInf displaying the same aspectual/temporal distinctions as finite complement clauses is an influence of Latin rather than an internal development of ΔΓ; cf. Perrochat (1932: pp. xiv‒xviii). This option, although possible, would clearly need further corroboration. Moreover, it is my opinion that one has to raise the question of what exactly can be considered a contact-induced change. I adopt the view of Thomason Grey (2003: p. 688) that “contact between languages (dialects) is a source of linguistic change whenever a change occurs that would have been unlikely, or at least less likely, to occur outside a specific contact situation.” In other words, because it is not necessary to assume the impact of Latin in order to account for the emergence of the construction investigated (and for its semantic properties), this does not seem to be an instance of a contact-induced change.}

Thus the emergence of the construction investigated, as well as its semantic properties in HG, can be accounted for in terms of the internal development of Greek. It is perhaps only a coincidence that the earliest instances, as
well as certain semantic properties of the construction investigated, mostly go back to bilingual authors.

Nevertheless, it is worth noting that the Plpf. was a relatively rare tense in AG; see Duhoux (2000: p. 155). If it is taken into account that the Pf. Inf. ἐσχηκέναι, when referring to anterior states, represents the function of Plpf. in DInf, it can be argued that, although the Plpf. was not very common in the language as a whole, corresponding DInf were quite common in mostly bilingual authors such as Polybius. For instance, at least two out of five instances of the construction investigated refer to an anterior state in the latter. This phenomenon seems to speak in support of Latin influence, although it concerns frequencies of the construction rather than its structural and semantic properties. Namely, it can be argued that it is more likely for DInf containing the Pf. Inf. ἐσχηκέναι to refer to anterior states in bilingual authors than in authors that did not know Latin.¹⁶

4.3. The construction as an internal Greek development: further evidence

It was argued in Section 3 that official documents dating back to early HG do not display instances of the construction investigated referring to anterior states. However, it seems that this function of the Pf. Inf. ἐσχηκέναι is attested in other non-literary Hellenistic documents. This is seen in example (20), taken from a private letter from the second century BC:

(20) Μετελάβομεν τῶι σε ἀηδῶς ἐσχηκέναι καὶ ἀφηλπίσθαι καὶ συνεχύθη ὅλον τὸ φρούριον. ἐπιγνόντες οὖν με̣τ̣ὰ ταῦτα τῷ σὲ καλῶς ἐσχηκέναι τῷ Ἡρακλῆ καὶ τοῖς ἐν Ἀλεξανδρείᾳ θεοῖς χάριν ἔσχομεν (PDiosk.17, 151 or 140 BC)

‘We were informed that you were in a sad state and despaired, and the whole fort became confused. When we learned later that you were well, we showed gratitude to Heracles and to the gods in Alexandria.’

Example (20) contains two instances of the Pf. Inf. ἐσχηκέναι, whose meaning is arguably declarative, although the two DInf seem to be substantivized with a dative form of the definite article, τῷ. Nevertheless, this

¹⁶ According to Calboli (2009: pp. 115‒30), there were other structural differences between Latin and Greek that could not escape the notice of bilingual authors; for example, the absence/presence of the definite article. Moreover, the impact of bilingualism is arguably manifested in Latin DInf; namely, in the use of the construction NcI instead of AcI (cf. ait fuisse navium celerrimus ‘it is said to have been the fastest of ships’, Cat. 4.2); see Calboli (2009: pp. 121‒30). It is therefore likely that the reverse applies as well; namely, that (in bilingual authors) Greek DInf did not escape the impact of Latin.
does not seem to have any impact on the declarative meaning of the infinitives. In addition, the two infinitives appear to refer to anterior states. Note that they are associated with adverbs (ἀηδῶς and καλῶς), thus occurring in intransitive use. This use of the verb ἔχω is arguably stative; see Section 2.3. In any case, it is clear that ‘have obtained’ does not give a plausible interpretation of these two DInf, which is an indication speaking against the non-stative reading of this example.

The letter is significant because it does not seem that its author could have been in contact with Latin. The author’s name is clearly Greek (rather than Latin) — namely, Dioskurides.

It is also worth noting that one of the earliest instances of DInf containing the Pf. Inf. ἐσχηκέναι goes back to an author that does not seem to have been bilingual — namely, to Macho; see example (11). It is more likely that the situation that the DInf refers to is an anterior state rather than a punctual event (given that it refers to a woman having a nice bottom). This would be a convincing instance of an author that was not in any significant contact with Latin using the construction investigated in the function of conveying an anterior state. As mentioned already in Section 2.2, the shortcoming of this evidence concerns the fact that it is a quotation from a much later author. Nevertheless, this evidence is perhaps not to be entirely neglected, given that it occurs in a verse form, which is why it seems less likely that Athenaeus significantly changed its form.17

Conclusions

HG displays a frequent use of DInf containing the Pf. Inf. It has been suggested that this construction was a result of Greek coming into contact with Latin. This article focused on DInf containing the Pf. Inf. ἐσχηκέναι, as an anonymous reviewer argued, the Pf. Inf. γεγονέναι can have the same function as fuisse in Latin as early as in CG. Nevertheless, the passages he referred to (Pl., Euthphr. 6b and Pl., Prm. 141b) contain Pf. Inf. γεγονέναι, which — unlike ἐσχηκέναι in passages (16), (17), and (20) above — appear to express punctual past events (rather than states) with a potential continuing relevance. This interpretation is supported by English translations: Fowler (1953a; 1953b) translates the Pf. Inf. γεγονέναι in the former case as ‘these . . . happened’ and in the latter case as ‘has become’. Nevertheless, even if CG displays DInf containing the Pf. Inf. γεγονέναι, which refer to anterior states with no continuing relevance, this does not disprove the findings of this paper. On the contrary, such instances additionally support the view that the construction investigated is a result of an internal development of AG, and they say nothing about whether or not mostly bilingual authors used it in HG to express anterior states with no continuing relevance.
arguing that the emergence of this construction as well as its semantic properties can be accounted for in terms of internal processes of AG. Namely, CG had no infinitive specialized for conveying anterior states in DInf. As a consequence, it appears that the spread of the RP, a phenomenon going back to late CG and HG, led to the Pf. Inf. adopting the aforementioned function.

Nevertheless, it is particularly striking that earliest instances of the construction investigated go back to bilingual authors such as Polybius. Moreover, these authors display relatively common use of the construction investigated referring to anterior states. This could be related to the fact that, unlike in Greek, Latin DInf containing the infinitive habuisse often refer to such states. Thus it can be argued that Latin influence is manifested in the respect that it is more likely for the construction investigated to refer to anterior states in bilingual HG authors than in authors that were not bilingual.

List of abbreviations
Aor. = Aorist
AcI = Accusativus cum Infinitivo
AG = Ancient Greek
CG = Classical Greek
DInf = Declarative Infinitive
Fut. = Future
HG = Hellenistic Greek
Inf. = Infinitive
NcI = Nominativus cum Infinitivo
Pf. = Perfect
Plpf. = Pluperfect
Pres. = Present
RP = Resultative Perfect

Bibliography


Jerneja Kavčič, PhD

Department of Classics

University of Ljubljana, Faculty of Arts

Aškerčeva 2, SI-1000 Ljubljana, Slovenija

jerneja.kavcic@guest.arnes.si