

# ‘Finite’ infinitives in Ancient Greek

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## Abstract

In this paper I argue that the unembedded Accusativus cum Infinitivo in Ancient Greek is a case of hearer-induced grammaticalization. AcI embedded under *verba dicendi* or *δοκεῖν* in deontic contexts are ambiguous: while the speaker intends the deontic reading as a side meaning of the embedding verb, it can also be attributed to the AcI. If the hearer opts for the latter analysis, a new function of the AcI emerges, which ultimately leads to its de-embedding. I show that this grammaticalization process is parallel to similar reanalyses in sound change. In a short outlook the analysis is extended to the emergence of absolute constructions.

## Keywords

Ancient Greek – infinitives – insubordination – grammaticalization – actuation

## 1 Introduction

In recent years there has been a growing interest in de-embedding or insubordination, to use the more recent term coined by Evans (2007). The phenomenon is long familiar to students of the syntax of the older Indo-European languages. Thus, it is not the aim of this paper to add further examples to the ongoing discussion. Nor is it my intent to assess the role de-embedding plays in grammaticalization theory (on both see Evans 2007 and the papers in Evans and

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Watanabe 2016). Rather, what I am interested in is to give a possible scenario for the actuation of a remarkable case of de-embedding, the Ancient Greek unembedded AcI.

The Greek infinitive is attested in a variety of uses, most of which are unsurprising given the fact that it originated from an adjunct noun phrase which is headed by an event noun and denotes the purpose of the event depicted in the embedding sentence.<sup>1</sup> One use, however, deviates strikingly: the unembedded Accusativus cum Infinitivo (AcI), which is not only a case of insubordination, but rather surprisingly inherits the unusual case marking of its subject from its embedded antecedent. The origin of this construction is undisputed, as is the grammaticalization path. What has not been dealt with, however, are the mechanisms behind this type of grammaticalization. In this paper I argue that it is hearer-based and triggered by the exact same factors as hearer-based sound change. The paper is part of a project aiming at giving a unified account of sound change and grammaticalization.

Throughout this paper, I use the term *grammaticalization* to characterize the change from embedded to unembedded AcI. I follow Traugott (2008: 220) in understanding grammaticalization broadly “as the output of processes of language use that lead to systematic changes in morphosyntactic form and meaning.” Under this definition, the terms *grammaticalization* and *grammatical constructionalization* (Traugott and Trousdale 2013) are *grosso modo* interchangeable.<sup>2</sup> But even under a narrow definition of the term, de-embedded AcI qualify as grammaticalizations, or, more accurately, as secondary grammaticalizations, i.e. changes the source of which is itself the product of a grammaticalization process (for the term see Traugott 2010). Grammaticalization as a process has been described as a “drift [...] toward tighter structures, toward less freedom” (Haspelmath 1998). Such a drift can indeed be observed in the development of

1 For the grammaticalization path from purposive event noun to infinitive see Haspelmath (1989). It cannot be illustrated with data from Ancient Greek since event nouns in purposive constructions like the *dativus finalis* are not (or rather no longer) attested—the *dativus finalis* being generally very rare (but see ἔριδι in ex. 2). Final datives and homonymous infinitives still exist side by side in Early Vedic. Cf. RV 2.31.3 with an NP headed by an event noun (*ānu nū st<sup>h</sup>āti* [...] *rāt<sup>h</sup>am mahé sanāye ...* ‘he will stand beside our chariot for great gain ...’) and RV 1.116.21 with an infinitive heading a VP (*āvataṃ rānāya vāsam* [...] *sanāye sahásrā* ‘you gave Vāśa the help for the battle, in order for him to gain thousands.’). On the Vedic data see Keydana (2013: 212).

2 The issue of the exact relation of grammaticalizations to constructionalizations, however, is still a matter of debate; see e.g. Noël (2007), Noël and Coleman (2009), the discussion in Waltereit (2011: 414–415), and Traugott and Trousdale (2013).

the de-embedded AcI, both in semantics and in syntax. As will be illustrated below, embedded infinitives may have various readings which depend exclusively on the embedding context. The unembedded AcI, on the other hand, has exactly one reading: it is necessarily deontic.<sup>3</sup> This semantics, then, has become a feature of the construction. De-embedding also results in an increase in grammatical structure compared to embedded AcI. In the latter, the accusative of the subject is licensed by the embedding verb, a phenomenon described in the literature as exceptional case marking (ECM) or raising to object (Goldstein 2016: 269). In unembedded AcI, the case is licensed from within the construction itself. This change comes with an important corollary: raising to object implies that the AcI be a VP (or TP, depending on one's premises). It cannot be an S (or CP), since the latter is a barrier for ECM or raising (see again Goldstein 2016: 269, 272 for the difference between VP- and S-infinitives in Ancient Greek). Unembedded AcI serve as full-fledged independent sentences: they are S/CP in their own right. Note also that the unembedded AcI, like other grammaticalizations, is an instance of what Himmelmann (2004) calls *expansion*, since it is used in a context in which infinitives did not occur before the change.

In the following section a short overview of the prehistory and the uses of the Greek infinitive is given. In section 3 I present a picture of the unembedded AcI, while section 4 introduces the notion of actuation. In the fifth section I give an account of the emergence of the unembedded AcI in terms of the theory developed in section 4. Section 6 introduces absolute constructions as a further example of a construction evolving from the same type of hearer-based change. A summary is given in section 7.

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3 As deontic modality is mentioned here for the first time, a short note on modal semantics may be in order. Any proposition which is evaluated relative to possible worlds is modal. The set of worlds (each a set of propositions) accessed in the evaluation determines the nature of the modality. Thus, a purposive infinitive like the one in ex. 1 below is bulletic because the worlds accessed conform to the intention of the intentional agent of the embedding sentence as presupposed by speaker and hearer. Deontic readings imply that only those worlds are accessed which accord with man-made rules or laws. Epistemic readings access those worlds which match the knowledge about the world of speakers and hearers. The worlds accessed are the modal base of the evaluation. For more details and for a formal account of modal semantics, see Kratzer (2002).

## 2 The infinitive in PIE and early Greek

### 2.1 *A short prehistory of the Greek infinitive: morphology*

All types of Greek infinitives are based on deverbal event nouns in oblique cases. The oldest marker, which is attested from Mycenaean onwards and is probably of PIE age, is formed by reanalyzing the locative of an *s*-stem. Thus, Greek ἔχειν, Myc. *e-ke-e* can be transposed to a PIE form *\*seǵ<sup>h</sup>-es-en*, the ending of which is notably similar to the one presupposed by Latin *-ere* < *\*-es-i* and Vedic *-sáni* < *\*-s-én-i*. An exact reconstruction of a PIE infinitive marker, however, remains impossible as the attested forms differ both in case marker and stem formation: while the Latin infinitive continues an *\*i*-locative, Greek has *\*-en*, most likely also a locative marker (Stüber 2000: 139). Vedic combines both, *-sáni* being an *\*en*-locative hypercharacterized by an additional *\*-i* (Stüber 2000: 159). In addition, Vedic presupposes a zero grade affix not attested elsewhere in deverbal neutral *s*-stems (Debrunner 1954: 233; Stüber 2000: 159 takes this to be an archaism), while both Greek and Latin show full grade. Still, the continuation of an *\*en*-locative both in Vedic and in Greek is remarkable and points to a common PIE ancestor, since in both languages *\*en*-locatives of *s*-stems or other event nouns are otherwise not attested.<sup>4</sup>

In the case of IE languages, locatives of event nouns are a surprising starting point for a grammaticalization path leading to infinitives. For one thing, locative complements are not attested with any of the verbs embedding infinitive complements in the early IE languages. Locative complements can thus be excluded as a possible source of the infinitive. For another, the semantics of adjunct infinitives is purposive and quite similar to the *dativus finalis* which seems to be a much more likely source for the infinitive—many of the infinitive markers attested in early Vedic actually derive from datives. The IE locative does not typically denote purpose, though it may be used as a GOAL-case. At first glance, this might indeed be the missing link, since GOAL-cases are attested throughout the world as a source for purposive infinitives (Haspelmath 1989; Heine and Kuteva 2002). However, the situation in the IE languages is slightly more complicated. As shown by Vedic, which still distinguishes neatly between the dative and the locative, GOAL-locatives are restricted to nouns denoting places or, more generally, objects in the world. With abstract entities such as events, GOAL is always denoted by the dative (Keydana 2013: 329). If Vedic faithfully continues the late PIE system, GOAL cannot be the origin of the infinitive.

4 Another candidate for a PIE infinitive marker not continued in Greek is *\*-d<sup>h</sup>iōi*, on which see Fortson (2012).

A tentative explanation for the locative lies in the formal similarity of the *-i*-locative and the dative in *\*-e<sub>i</sub>*. It is conceivable that both markers continue one and the same desinence which originally covered both the dative and the locative function. This assumption is further corroborated by Hittite, where both cases are marked by *-i*—at least if we consider Hittite to be archaic in this respect. Concerning the locative infinitive, this suggests that the grammaticalization took place at a point in time when both cases were not yet distinct, viz. before late PIE.

The other Greek infinitive markers, *-έμεν* and *-εναί / -μεναί*, are likewise based on locatives of deverbal nouns. However, these formations are of later origin. And since the locative and the dative collapsed into a single category in Greek, it is impossible to decide if they developed out of true locatives or rather out of formal locatives in dative use.<sup>5</sup>

## 2.2 *A short prehistory: types of embedding*

Diachronic morphology reveals that infinitives were originally used as adjuncts. Adjunct infinitives come in two types, as rationale clauses and as purpose clauses.<sup>6</sup> In both types, the subject of the infinitive phrase is latent. With rationale clauses, it is controlled by the subject of the embedding sentence. Purpose clauses have a more complicated structure. They always contain at least one latent argument which is controlled by the object of the embedding sentence. This may be the subject of the infinitive phrase, but it can also be any other argument. In the latter case, the reference of the latent subject is free, meaning that it is determined by semantics and pragmatics.<sup>7</sup> Example (1) illustrates a rationale clause, (2) a purpose clause:

5 Schwyzer (1950: 359) ponders the possibility that originally the infinitive in *-έμεν* had a locative meaning, whereas *-εναί* was a true purposive. *βῆ δ' ἵμεν* would thus mean “schritt aus beim Gehen”, *βῆ δ' ἵεναί* “schritt aus zum Gehen”. This hypothesis cannot be validated. It is, however, quite improbable, since as early as the Iliad clear cases of purposive *-έμεν*-infinitives are attested, whereas unequivocal cases of locative meanings remain to be found.

6 This distinction goes back to Bach (1982: 35–36). Bach uses the term *in-order-to-clause* instead of *rationale clause*. The latter designation, which is preferable for not being language-specific, goes back to Johnston (1998: 9).

7 For an explanation of this rather strange control pattern, see Keydana (2013: 98).

- (1) βῆ δ' ἴμεν ἄν τε μάχην καὶ  
 stride-AOR.3.SG PTCL go-PRS.INF through and battle-ACC and  
 ἀνά κλόνον ἐγχειάων  
 through crush-ACC spear-GEN.PL  
 'He [sc. Aeneas] set out to go through the battle and through the crush of  
 the spears.' (E 167)
- (2) τίς τάρ σφωε θεῶν ἔριδι ξυνέηκε  
 who-NOM then both-ACC god-GEN.PL brawl-DAT.SG drive-AOR.3.SG  
 μάχεσθαι;  
 fight-PRS.INF  
 'Who then of the gods forced the two against each other, for a brawl, to  
 fight each other?' (A 8)

Both examples clearly illustrate the purposive semantics of the adjunct infinitive sketched above in fn. 3. The infinitive phrase denotes an event which the agent intends to result from the action depicted by the embedding verb. The difference lies in the control relation, subject control in (1) versus object control in (2). In the oldest language, adjuncts never occurred with the complementizer ὥσθε. Quite surprisingly, its use originated in complements and spread to adjuncts only later.<sup>8</sup> In the context of this paper, the most important fact about both types of adjunct infinitives is that they always have a modal, purposive reading.

Complements, both modal and nonmodal, are attested already in Mycenaean. This is quite remarkable since in Vedic, another IE language with early attestation, complements are a very recent phenomenon and nonmodal infinitives are absent altogether.<sup>9</sup> For Mycenaean see examples (3) and (4):<sup>10</sup>

8 The only possible case of an adjunct with ὥσθε in Homer is I 42, which, however, is best analyzed as a complement depending on ἐπέσσυται.

9 They are, however, attested in Old Avestan (Keydana 2013: 76 fn.40). Hittite infinitive syntax deviates substantially from that of the other ancient IE languages. The patterns attested, especially those in serial verb constructions, are probably due to substrate influence. In any case, they are innovations.

10 Depending on one's interpretation, up to nine infinitives are attested in Mycenaean. All of them are complements, the most unambiguous being dependent either on *op<sup>h</sup>ēlo-*, or (twice, on one and the same tablet) *ap<sup>h</sup>iēmi*. The lack of attestation of adjunct infinitives is probably due to the genre of the Mycenaean texts.



In this example, the infinitive follows an optative, λύσαιτε, to which it apparently stands in free distribution. As with λύσαιτε, the subject, a 2.pl., remains unexpressed. Still, the latent subject bears nominative case. This is evident from the appositive participle ἄζόμενοι, whose phi-features are licensed through agreement with it. Overt subjects in the nominative are attested in the 3.pers., see Schwyzer (1950: 382). This type of matrix infinitive probably developed out of the purposive use of the infinitive via reanalysis, since both share the bulletic reading and the surface syntax, most notably the absence of an overt subject (Keydana 2013: 74 fn. 37). Though still frequent in Homeric Greek, it vanishes in the classical language (Schwyzer 1950: 380). However, matrix infinitives are not ousted from the system altogether. Rather, in a clearly inner-Greek development, a new type arises: the unembedded AcI, used mainly in requests and orders.<sup>12</sup>

### 3 The unembedded AcI

Like the matrix infinitive with a nominative subject, the unembedded AcI is attested from Homeric Greek onwards:

- (6) εἰ μὲν κεν Μενέλαον Ἀλέξανδρος καταπέφνη /  
 if PTCL PTCL Menelaos-ACC Alexandros-NOM kill-AOR.SUBJ.3.SG  
 αὐτὸς ἔπειθ' Ἑλένην ἔχέτω καὶ κτήματα  
 self-NOM then Helen-ACC have-PRS.IPV.3.SG and property-ACC.PL  
 πάντα ... / εἰ δέ κ' Ἀλέξανδρον κτείνῃ  
 all-ACC.PL if PTCL PTCL Alexandros-ACC kill-PRS.SUBJ.3.SG  
 ξανθὸς Μενέλαος / Τρώας ἔπειθ' Ἑλένην καὶ  
 blond-NOM Menelaos-NOM Trojan-ACC.PL then Helen-ACC and  
 κτήματα πάντ' ἀποδοῦναι  
 property-ACC.PL all-ACC.PL give back-AOR.INF  
 'If Alexander slay Menelaos, then he shall keep Helen and all her properties [...]. But if blond Menelaos slay Alexander, then the Trojans shall give back Helen and all her properties.' (Γ 281–285)

Duhoux 2008: 301–302). While the second one is parallel to Ep 704, the first one is peculiar since, if the interpretation is correct, it contains a latent subject: *euk<sup>h</sup>etoi k<sup>w</sup>e e-to-ni-jo ek<sup>h</sup>e<sup>h</sup>en the<sup>h</sup>ōi* 'and she claims to hold an e-to-ni-jo for the deity'.

12 Latin, too, has unembedded AcI. However, the Latin unembedded AcI is restricted exclusively to exclamations and most probably originates in the more general use of the Latin accusative in such contexts. As will be seen in the following section, the domain of use



(6) is a typical example of the unembedded Acl.<sup>13</sup> As in (5), the infinitive parallels a finite verb in the preceding clause, in this case the imperative ἐχέτω. The accusative subject is overt, and there is evidently no embedding verb. Note that the context is some sort of treaty—the typical genre for the unembedded Acl.

Unembedded Acl are also attested in other literary genres. The following example from Herodotus is the climax of a message from Mardonius, the Persian military commander, to the Lacedaemonians. Mardonius challenges his enemies and offers the following deal:

- (7) *ὁκότεροι δ’ ἂν ἡμέων νικήσωσι,*  
 which of two-NOM.PL PTCL PTCL we-GEN win-AOR.SUBJ.3.PL  
*τούτους τῷ ἅπαντι στρατοπέδῳ νικᾶν*  
 this-ACC.PL the-DAT.SG. whole-DAT.SG army-DAT.SG win-PRS.INF  
 ‘Whoever of us shall win, let those win for the whole army.’ (Herodotus 9,48,4)

Thucydides uses the unembedded Acl in an account of a treaty between the Athenians and the Lacedaemonians:

- (8) *ἐξέστω ἀπιέναι ὅποι ἂν*  
 be allowed-PRS.IMPV.3.SG go-PRS.INF whither PTCL  
*βούλωνται αὐτούς καὶ τὰ ἑαυτῶν*  
 want-PRS.SUBJ.3.PL self-ACC.PL and the-ACC.PL own-GEN.PL  
*ἔχοντας τὰς δὲ πόλεις*  
 have-PRS.PTCP.ACC.PL the-ACC.PL PTCL town-ACC.PL  
*φερούσας τὸν φόρον τὸν ἐπ’*  
 carry-PRS.PTCP.ACC.PL the-ACC.SG tribute-ACC.SG the-ACC.SG on  
*Ἀριστείδου ἀυτονόμους εἶναι*  
 Aristides-GEN independent-ACC.PL be-PRS.INF  
 ‘They shall be allowed to go where they please and to take their property with them. The cities, while paying tribute to Aristides, shall be independent.’ (Thucydides 5,18,5; cf. similar unembedded Acl throughout this passage up to 5,18,10)

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of the Greek unembedded Acl is very different. I thus conclude that—apart from their superficial similarity—the Greek and the Latin unembedded Acl have nothing in common, neither in a diachronic, nor in a synchronic perspective.

13 Infinitives of both the present stem and the aorist stem are attested in unembedded Acl. See Jacobsthal (1907: 36sq.) for details.

The affinity of the unembedded AcI for legal texts is confirmed by its frequent use in inscriptions. As already observed by Schwyzer (1950: 380), AcI “herrscht in den Inschriften der archaischen Zeit fast allein und wird erst später mehr und mehr durch den ursprünglich nicht ganz gleichwertigen τω-Imperativ ersetzt.”

The most ancient epigraphic attestation can be found in a decree from Dreros, after 650 BC:<sup>14</sup>

- (9) ἄδ' ἔφαδε πόλι· ἐπεὶ κα  
 that-ACC.PL please-AOR.3.SG city-DAT when PTCL  
 κοσμήσει, δέκα φετίδων τὸν ἀφτόν μὴ  
 be kosmos-AOR.SUBJ.3.SG ten year-GEN.PL the-ACC same-ACC not  
 κόσμῆν  
 be kosmos-PRS.INF  
 ‘The city has thus decided: When a man has been *kosmos*, the same one shall not be *kosmos* again for ten years.’ (BCH 61 (1937) 333sq.)

It is highly unlikely (and has, to my knowledge, never been proposed) that in this early Cretan example the AcI depends on ἔφαδε (as it does in ex. 14 below), mainly because of the cataphoric pronoun ἄδε, which, together with the dative πόλι, saturates the subcategorization frame of (F)ἀνδάνω. The assumption of an independent AcI is further strengthened by the fact that the actual decree opens with a subordinate ἐπεὶ-clause.

In later inscriptions, unambiguous examples abound. Thus, the AcI is the very first sentence of an Arcadian inscription from Tegea, ca 390 BC:

- (10) τὸν ἱερέν πέντε καὶ εἴκοσι οἷς νέμεν  
 the-ACC priest-ACC five and twenty sheep-ACC.PL pasture-PRS.INF  
 καὶ ζεύγος καὶ αἶγα  
 and yoke-ACC and goat-ACC  
 ‘The priest shall pasture 25 sheep and a pair of oxen and a goat.’ (IG V,2 3)

Substantial additional evidence for independence comes from alternations of finite verb forms and infinitives, which occur frequently in inscriptions from various dialects. Cf. the following example from an Athenian decree, ca. 440–432 BC:

14 The epigraphic data are printed as in the sources indicated.

- (11) [*.. 6 ...*]ν αὐτοῖς παρασχόντων ἡοι  
 he-DAT.PL provide-AOR.IPV.3.PL the-NOM.PL  
 ἀπ[οικιστ]- | [αἰ καλλ]ιερεῖσαι ἠυπέρ  
 leader of a colony-NOM.PL obtain good omens-AOR.INF for  
 τῆς ἀποικίας, [ἠοπόσα] | [ἄν αὐτο]ῖς δοκεῖ.  
 the-GEN colony-GEN as PTCL he-DAT.PL seem-PRS.3.SG  
 γεονόμος δὲ ἠελέσθ[αι δέκα] | [ἄνδρας],  
 land-distributor-ACC.PL PTCL take-AOR.INF ten man-AC.PL  
 ἕνα ἕχ φυλῆς· ἠούτοι δὲ  
 one-ACC.SG from tribe-GEN this-NOM.PL PTCL  
 νεμάντ[ον τέν] | [γῆν. Δεμ]οκλείδεν δὲ  
 distribute-PRS.IPV.3.PL the-ACC earth-ACC Demokleides-ACC PTCL  
 καταστῆσαι τέν ἀ[ποικί]- | [αν αὐτο]κράτορα,  
 establish-AOR.INF the-ACC colony-ACC possessing full powers-ACC  
 καθότι ἄν δύναται ἄ[ριστα]  
 how PTCL can-PRS.3.SG best  
 'Let the colonists provide for them to seek good omens for the colony, as much as they see fit. Ten men shall be elected as land-distributors, one from each tribe: let these distribute the land. Demokleides shall establish the colony, with full power, as best he can.' (IG I3 46, line 4–9)

The decree begins with an imperative, *παρασχόντων*, followed by an infinitive, *ἠελέσθαι*, another imperative, *νεμάντων*, and finally the infinitive *καταστῆσαι*. The same pattern is attested in the famous Gortyn law, ca. 480–450 BC, cf. Baunack and Baunack (1885: 76). In the following paragraph we find an imperative, *καταδικαδδέτῶ*, followed by the infinitive *κρίνεν*:

- (12) αἰ [δέ] κα | μῆ [λαγ]άσει καταδικαδδέτῶ τῶ  
 if PTCL PTCL not set free-FUT.3.SG condemn-IPV.3.SG the-GEN  
 μὲν | ἕλευθέρῶ στατῆρα, τῶ δόλω [δα]ρχν|άν  
 PTCL free-GEN statēr-ACC the-GEN slave-GEN drachma-ACC  
 τᾶσ ἀμέρας φεκάστας, πρίν κα λα- | γάσει τῶ  
 the-GEN day-GEN every-GEN until PTCL set fee-FUT.3.SG the-GEN  
 δὲ κρόνῶ τὸν δι[χ]αστάν ὀμνύντα  
 PTCL time-GEN the-ACC judge-ACC swear-PTCP.PRS.ACC  
 κρίνεν  
 decide-PRS.INF

'If he does not set him free, (the judge) shall condemn him to a fine of one statēr in case of a free man, to a fine of one drachma in case of a slave, for every day until he sets him free. As to the duration, the judge shall decide under oath.' (IC IV 72, 7–12)

In both examples, no embedding verb intervenes between imperative and infinitive. Cases like these are broadly attested and lead Schwyzer to the obvious conclusion that the unembedded AcI and the imperative stand in free distribution (Schwyzer 1950: 383): “Häufig wechselt in Inschriften der a.c.i. mit  $\tau\omega$ -Formen ohne ersichtlichen Grund.”<sup>15</sup>

The origin of the matrix AcI is, again according to Schwyzer, “Ellipse des Verbum regens” (1950: 383). The term ellipsis, however, is slightly misleading, because ellipsis is usually understood as a synchronic process. The matrix AcI does not fit this picture. Ellipsis is typically triggered by a preceding conjunct. In the examples given here, as in many others, this condition is clearly not fulfilled. In (10), for example, the matrix AcI is the first sentence of the inscription. In (11) and (12), the AcI alternates freely with the imperative. We thus have to conclude that with unembedded AcI Schwyzer’s ellipsis is to be understood as a diachronic process. It is what Evans (2007) calls a conventionalized ellipsis.

The grammaticalization path seems obvious. In the first stage, AcI in the context of legal texts or more generally any type of request were embedded under some *verbum regens*. Examples of such embedded AcI are attested in Greek inscriptions, though clear examples are surprisingly hard to come by. This is due to the fact that in most decrees potentially embedding verbs are used as a formula independent of the actual decree itself (as e.g. in ex. 9). Still, embedding under the very same verbs is attested. The embedding verbs denote judicial acts (this type is quite rare, but see ex. 13) or psychological states (ex. 14). Also attested are simple *verba dicendi* (ex. 15). It is noteworthy that in the context of legal texts neither deontic modal verbs nor verbs of request are ever attested.

The earliest example of an embedding verb denoting a judicial act that I am aware of is from Cimolos, after 338 BC:

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15 Matrix AcI are also attested in unembedded indirect discourse (UID), see Bary and Maier (2014). This use of the AcI, however, differs substantially from the one discussed here. On the one hand, UIDs typically follow embedded AcI depending on speech act verbs; if they do not, a speech act verb can always be inferred from the context. On the other, UIDs are always interpreted reportatively.

- (13) ἔκρινε                    ὁ                    δᾶμος                    ὁ                    τῶν  
 judge-AOR.3.SG the-NOM.SG parish-NOM.SG the-NOM.SG the-GEN.PL  
 | Ἀργείων                    κατὰ                    τὸ                    δόκη- | μα                    τοῦ  
 Argive-GEN.PL according to the-ACC opinion-ACC the-GEN  
 συνεδρίου                    τῶν                    | Ἑλλάνων,                    ὁμολογη- | σάντωμ  
 council-GEN the-GEN.PL Greek-GEN.PL agree-AOR.PTCP.GEN.PL.  
 Μαλίων                    καὶ | Κιμωλίων                    ἐμμενέν,                    | αἶ κα  
 Melian-GEN.PL and Cimolian-GEN.PL abide-PRS.INF as PTCL  
 δικάσαιεν                    τοῖ                    | Ἀργεῖοι                    περὶ  
 decide-AOR.OPT.3.PL the-NOM.PL Argive-NOM.PL about  
 τᾶν                    | [ν]άσων,                    Κιμωλίων                    | ἦμεν  
 the-GEN.PL island-GEN.PL people of Cimolos-GEN.PL be-PRS.INF  
 Πολύαιγαν,                    Ἐτηι- | ρεῖαν,                    Λιβείαν  
 Polyaiга-ACC.SG Hetēreia-ACC.SG Libeia-ACC.SG  
 ‘The parish of the Argives judged according to the opinion of the council  
 of the Greeks, when the Melians and the Cimolians had agreed to abide by  
 what the Argives may decide regarding the islands, that Polyaiга, Hetēreia  
 and Libeia belong to the people of Cimolos.’ (IG XII.3, 1259)

Especially in Cretan, ἔφαδε is frequent; mostly, however, the verb is used as part of the introductory formula. The earliest of the rare examples of an AcI actually still embedded under ἀνδάνω is from Dreros, 7th c. BC:

- (14) πόλι                    ἔφαδε                    διαλήσασι                    πυλάσι  
 city-DAT please-AOR.3.SG consult<sup>2</sup>-AOR.PTCP.DAT.PL tribe-DAT.PL  
 ὅστις                    προ.[—?—] | πολε.2–3.ειε μὴ                    τίν{τ}εσθα(ι)  
 whosoever-NOM ?                    not punish-PRS.INF  
 τὸν                    ἀγρέταν  
 the-ACC leader-ACC  
 ‘The city decided after consulting the tribes [...] that the Agretas shall not  
 punish him, whosoever ...’ (BCH 70 (1946) 590)<sup>16</sup>

(14) is a probable example of a dependent AcI mainly because of the absence of any cataphoric pronoun coreferent with the AcI (as in ex. 9). The preposed relative clause is a weaker counterargument than the ἐπεὶ-clause in (9), since it depends on the (latent) object of τίντεσθαί.

16 The translation follows Effenterre (1946: 591); see also Koerner (1993: 338) and Effenterre and Ruz’ė (1994: 271).

Introductory εἶπε is typical for early Attic decrees. The following is a well-preserved example from 424/3 BC:

- (15) ἔδοχσεν            τῷ            βολῆι            καὶ τῷ            δέ-|μοι·  
 seem-AOR.3.SG the-DAT council-DAT and the-DAT people-DAT  
 Αἰγεῖς            ἐπρυτάνευε,  
 Aigeis-NOM hold the prytany-IPF.3.SG Neokleides-NOM  
 ἐγραμμάτευε,            Ἀγνόδε-|μος            ἐπεστάτε,            Καλλίας  
 be secretary-IPF.3.SG Agnodemos-NOM chair-IPF.3.SG Kallias-NOM  
 εἶπε·            τ-|ῆι            ἱερέαι            τῆς            Ἀθηνάας            τῆς  
 say-AOR.3.SG the-DAT priestess-DAT the-GEN Athena-GEN the-GEN  
 Νί-|κες            ν πενήκοντα δραχμάς            τὰ-|ς  
 Nike-GEN fifty            drachma-ACC.PL the-ACC.PL  
 γεγραμμένας            ἐν τῇ            στήλ[ηι]            | ἀποδιδόναι  
 write-PRF.PTCP.ACC.PL on the-DAT stele-DAT give back-PRS.INF  
 τὸς            κωλακρ[έτας]            | [ο]ῖ            ἂν  
 the-ACC.PL payment officer-ACC.PL who-NOM.PL PTCL  
 κωλακρετώσι            τῷ            Θ[αργηλ]-| [ιῶ]νος μηνός,  
 be payment officer-PRS.3.PL the-GEN Thargelion-GEN month-GEN  
 τῇ            ἱερ[εῖαι]            τῆς            Ἀ-| [θην]αίας τῆς            Νίκε[ς]  
 the-DAT priestess-DAT the-GEN Athena-GEN the-GEN Nike-GEN  
 ... 8 ...]

‘The Council and the People decided. Aigeis held the prytany. Neokleides was secretary. Hagnodemos was chairman. Kallias proposed: for the priestess of Athena Nike the fifty drachmas written on the stele, the payment officers in office in the month Thargelion shall pay (them) to the priestess of Athena Nike.’ (IG I<sup>3</sup> 36)

δοκεῖν is yet another verb frequently attested in decrees. It is discussed below in section 5.1.

In the second stage of the grammaticalization process, the AcI became autonomous. At least part of this grammaticalization path is attested elsewhere: as shown by Heine and Kuteva (2002: 92), complements can turn into purpose clauses, and complementizers into purpose clause markers. For an example of de-embedding in German, which occurs in similar contexts, see below, ex. 17. As can be seen from the data given so far, the second stage did not supersede the first. Rather, embedded and unembedded AcI are attested side by side in alphabetic Greek, most prominently in inscriptions.

#### 4 Actuation

Both the source and the target of the change are undisputed. Still, some important questions remain unanswered. How did the Acl acquire a deontic reading? And why did it become de-embedded in the first place?

To answer these questions, we have to look into the actuation of the change and to identify possible factors by which it may have been triggered. Does it somehow emerge due to structural reasons? Or is it routed in usage? And if so, who is responsible: speaker, hearer, or both?

In recent years, actuation has been a topic of intense study in the field of phonology. And since both grammaticalization and phonological change take place in communication between speakers and hearers, it seems advisable to treat them alike.<sup>17</sup>

I do not consider the language system a plausible culprit for initiating language change. The language system does not exist outside the knowledge of a language acquired by every speaker. It emerges and changes during the course of every speaker's life as a consequence of the fact that the speaker is constantly confronted with language use, both as a speaker and as a hearer (see, as an illustration, the impressive data in Harrington et al. 2000). Already acquired knowledge as well as cognitive predispositions, be they language-specific or not, may influence microchanges in each individual speaker, but they cannot actuate them.<sup>18</sup> Rather, change emerges out of language use, and since use always presupposes two parties, the speaker and the listener, both are possible initiators.

Recent studies in phonological change have shown that change typically emerges from the interplay of variation produced by the speaker and categorization made by the listener. *Lautabsichten*, to borrow a term from Trubetzkoy (1958), are never pronounced in isolation. Thus, production always suffers from coarticulation effects and various degrees of undershoot, the result being substantial variation. This is a challenge to hearers who have to cope with it by forming hypotheses as to the underlying *Lautabsicht*. This categorization is determined by prior experiences (known types of deviation, knowledge of the lexicon etc.). Thus, hearers confronted with new or infrequent patterns are especially prone to form 'wrong' hypotheses. John Ohala was the first to study this mechanism in greater detail. He famously distinguishes two types of change, hyper- and hypocorrection (Ohala 2012). Hypocorrection shall be

17 For an approach to grammaticalization similar to the one developed here, see Grossman and Polis (2014).

18 This is also acknowledged by scholars who treat syntactic change as a change in (micro)parameter settings. See e.g. Richards (2008).

discussed here in some detail because of its similarity to what we propose happened in the development of the unembedded AcI. Ohala's now classic example of hypocorrection is a scenario in which a speaker utters the string /ut/ as [ʊt]. This slightly deviant pronunciation is due to the fact that any speaker prepares the coronal gesture of the [t] by fronting the tongue body during the articulation of the preceding vowel. As a result, the transitions the hearer is confronted with in [ʊt] are ambiguous.<sup>19</sup> The hearer perceives these transitions as cues for the following coronal, but at the same time also as cues for /y/. Depending on his perception grammar formed by prior experience, this ambiguity may lead to different results. If the cue for coronals outweighs that for a front vowel, nothing changes. But if the latter cue outweighs that for coronals, the hearer will misparse [ʊt] as /yt/, the result being a microchange, subphonemic at first and originally restricted to this very hearer.<sup>20</sup> A similar change is perceptual metathesis which occurs frequently with rhotics (Blevins and Garrett 2004). E.g. in Vedic, a deverbal noun /karṣtu-/ 'plowing' existed, which was (probably) pronounced as [karṣtu-]. Rhotics, however, are a challenge for perception since their F<sub>3</sub>, the most salient cue for a rhotic, is elongated. This makes it difficult for hearers to decide on the exact place of the rhotic within a given string. Again, ambiguity arises: hearers may perceive the word as /karṣtu-/ or as /kraṣtu-/. If the latter happens, metathesis takes place.

Such microchanges are determined by two types of parameters. The first belong to the realm of channel bias (Garrett and Johnson 2013). Channel bias subsumes coarticulation effects (like in [ʊt] above) or the limits of perception, e.g. elongated cues (as in the perceptual metathesis discussed above). Channel bias is complemented by analytic bias, i.e. the knowledge of a language against which perception takes place. Analytic bias determines the sensitivity to variation (Moreton 2008) and the direction of cue interpretation (Hamann 2009). In our Vedic example, channel bias would lead to a chance distribution of 'correct' and metathesized perceptions. It is analytic bias, in this case the knowledge that Vedic prefers sonorants in complex onsets to sonorants in complex codas (Keydana 2008), which pushes hearers in the direction of the metathesized form.<sup>21</sup>

19 This is the situation dubbed 'chance' by Blevins (2004).

20 For this version of Ohala's scenario cf. Hamann (2009), for possible pathways from subphonemic to phonemic change cf. Bermúdez-Otero and Trousdale (2012). Hypercorrection is the opposite of hypocorrection, whereby e.g. a speaker utters [yt] for underlying /ut/, but the hearer presupposes coarticulation and perceives /ut/. See Ohala (2012) for details.

21 Hypercorrection is always triggered by analytic bias.



Actuation outside of phonology is based on similar preconditions. In phonology, undershoot and coarticulation obscure the *Lautabsicht* and make the hearer’s task challenging. In semantics and pragmatics, it is the attempt to be economical and effective which leads the speaker to make utterances which are hardly ever fully explicit. Speakers rely heavily on a shared common ground, they use anaphors, and sometimes they even are innovative. They may use new implicatures, thus inviting inferences (Traugott and Dasher 2002). As in phonology, listeners have to cope with deficient or ambiguous information. They have to reconstruct the meaning of an utterance, to resolve anaphors, to accommodate presuppositions, and even to learn new generalized invited inferences (GIINS). At the same time, they avoid pragmatic overload (Eckardt 2009),<sup>22</sup> thus constraining the creativity of the speakers (Schwenter and Waltereit 2010).

## 5 A scenario for the unembedded AcI

How would an actuation scenario for the unembedded AcI look like?

As mentioned above, it is quite rare that AcI in legal contexts are embedded under verbs denoting judicial speech acts as in example (13). Verbs denoting requests do not occur at all. Rather, the embedding verb is typically a simple *verbum dicendi*. With AcI, these verbs are used in two different contexts. One, exemplified by (4) above, is reported speech. The other is a request, or to put it slightly more formally, a deontic speech act. Cf. (15) above and the following example from Cyrene, 4th c. BC:

- (16) Δάμις            Βαθυκλέυς            ἦιπε            περὶ    ὧν  
 Damis-NOM Bathuklēs-GEN say-AOR.3.SG about it-GEN.PL  
 λέγοντι            τοι            Θηραίο[ι]            | Κλευδάμας  
 speak-PRS.3.PL the-NOM.PL Theraean-NOM.PL Kleudamas-NOM  
 Εὐθυκλέυς,            ὅπως ἄ            πόλις  
 son of Euthukles-NOM how the-NOM city-NOM  
 ὀρθῶται            καὶ ὁ            δ[ᾶ]- | μος  
 succeed-PRS.SUBJ.3.SG. and the-NOM people-NOM

<sup>22</sup> An anonymous reviewer raised the important question of how pragmatic overload can be measured. Eckardt herself does not raise this issue. The only possibility I see are psycholinguistic experiments with carefully operationalized pragmatic factors. I am not aware that any such research has been undertaken.



succeeds as intended by the speaker. Still, assuming that hearers and speakers parse utterances on the premise that meaning is essentially compositional,<sup>23</sup> the hearer has to decide what part of the utterance the deontic reading is tied to. And since (16) is a bridging context, he has two options. He may analyze the sentence exactly as intended and infer a modal side meaning of the verb (type 2). In this case, nothing changes. But he may also classify the verb as type 1. The deontic modality, then, must be associated with the AcI. Surprisingly, this alternative reading is pragmatically equivalent to the intended one, since “say [that necessarily  $q$ ]<sub>AcI</sub>”, the reanalysis made by the hearer, can be used in exactly the same contexts as “request [that  $q$ ]<sub>AcI</sub>”. As a consequence, the communication remains felicitous and the reanalysis goes unnoticed. As the hearer has no reason to reassess his ‘wrong’ interpretation, he will eventually turn this new Particularized Conversational Implicature (PCI) into the Generalized Conversational Implicature (GCI) that the AcI may express a request (thus returning a modal reading to the infinitive once again).

This miscategorization, then, accounts for the deontic modality of the unembedded AcI. But how did it turn into a matrix infinitive? The answer lies with the hearer turned speaker.

The AcI started out as a device to encode subordination. By extracting a mistaken GIIN in the context of legal texts, hearers derived a new GCI for the AcI by associating it with deontic modality. This conventionalization then leads to grammaticalization, as the former GCI turns into the primary function of the AcI (in the genre of legal inscriptions and treaties in general). As a consequence, the old function, subordination, which is still very much alive outside legal contexts, is demoted. This demotion together with the newly established firm connection of the AcI with deontic modality finally opens up new vistas for syntax. Since subordination is no longer at the core of the construction, it can now be used outside of embedding. The result is a construction in direct competition with the imperative, i.e. exactly what we find in the examples from Homer onwards.

The actuation sketched here is a hypocorrection. The speaker invites an inference which can potentially be attached to the embedding verb and to the embedded structure alike. Thus, he generates ambiguity, but he does so involuntarily. The change is clearly not speaker-invited. Still, the structural ambiguity forces the hearer to decide between two possible analyses. The actual change occurs if the hearer opts for the ‘wrong’ analysis. Thus, it is hearer-based. This scenario resembles quite strongly the hypocorrection leading to

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23 For the importance of this premise for studies in grammaticalization, see Eckardt (2012).

perceptual metathesis. In both cases, the information offered by the speaker is correctly perceived by the hearer: he processes cues for the lowered F<sub>3</sub> of rhotics, and likewise he infers deontic modality. In both cases, however, the exact location of the information is dubious. Lowered F<sub>3</sub> is elongated, and it is unclear if it is associated with a segment in the coda or rather in the onset. Likewise, the implicature can be associated both with the embedding verb and the AcI without any difference in meaning. In both cases the change is essentially triggered by channel bias, although it has analytic overtones. With metathesis, it is the a priori knowledge that lowered F<sub>3</sub> must be tied to one segment. With the AcI, it is the premise that semantics is essentially compositional: deontic modality has to be encoded somewhere.

The proposed shift from mere subordination to deontic modality and the subsequent de-embedding have a striking typological parallel in German sentences like (17):<sup>24</sup>

(17) a. *Dass du (mir) \*(ja) um acht zuhause bist!*  
 that you me PTCL at eight at home are  
 'Be home at eight!'

b. *Ich verlange / sage, dass du (\*mir) (\*ja) um acht zuhause bist.*  
 I demand / say that you me PTCL at eight at home are  
 'I demand that you be at home at eight.'

Like the Greek AcI, German subordinate sentences with *dass* simply denote embedding: "that *q*". Sentences like (17), however, lack the embedding verb. Remarkably, they remain verb-final and thus still look like subordinate clauses. Like their Greek counterpart, they have a clear deontic reading which is not part of the original semantics of *dass*-embedding. Both observations clearly point to a scenario similar to the Greek one: the construction started out under embedding and acquired its semantics due to a hearer-induced reanalysis. The development is slightly less cogent than in the Greek case, since de-embedded deontic *dass* seems to be licensed only if a stressed particle like *ja* or *bloß* is added (while this type of particle is not licensed in subordinate sentences).<sup>25</sup>

24 Further examples from a variety of languages can be found in Evans (2007).

25 For a detailed analysis of this sentence type see Ferraresi (2016), who observes that the use of particles is indeed more acceptable if the embedded sentence is topicalized (Ferraresi 2016: 93).

5.1 *δοκεῖν as a bridge verb*

So far, the current proposal suggests embedding under *verba dicendi* as the point of origin for the development of unembedded AcI. However, another frequent introductory verb in legal inscriptions is *δοκεῖν*. The verb is mostly used as a formulaic opening syntactically independent of the rest of the inscription. But as with other verbs mostly attested in formulaic use, examples where the verb still clearly embeds an infinitive do exist. The most archaic is from the late 7th century part of the already quoted 4th century inscription from Cyrene, SEG 9:3:

- (18) [ἔ]δοξε            τᾷ            ἐκκλησίαι·            ἐπεὶ Ἀπόλλων  
 seem-AOR.3.SG the-DAT assembly-DAT since Apollo-NOM  
 αὐτομάτιξεν            Β[άτ]- | τωι καὶ Θηραίοις  
 act of oneself-AOR.3.SG Battos-DAT and Theraean-DAT.PL  
 ἀποικί[ξεν]            Κυράναν,            ὀριστόν            δοκεῖ  
 colonize-AOR.INF Cyrene-ACC obligation-NOM seem-PRS.3.SG  
 Θη[ραί]- | [ο]ις ἀποπέμπεν            ἐς τὰν            [Λιβ]ύαν Βάττομ  
 Theraean-DAT.PL send-PRS.INF in the-ACC Lybia-ACC Battos-ACC  
 μὲν ἀρχαγέτα[ν] | καὶ βασιλῆα  
 PTCL founder-ACC and king-ACC  
 ‘Thus decided the assembly: since Apollon acted of himself for Battos and  
 the Theraeans [in order to make them] colonize Cyrene, it seems to be an  
 obligation for the Theraeans to send Battos to Lybia as founder and king.’  
 (SEG 9:3)

The initial *ἔδοξε* is clearly formulaic. Remarkable, however, is the following *δοκεῖ*. On the one hand, it takes the following infinitive *ἀποπέμπεν* as complement. On the other, *ὀριστόν* marks the deontic modality explicitly—I am not aware of any other such case in the corpus.

An example without an explicit marker of the deontic reading can be found in a decree from Eretria, 411 BC. Though this analysis cannot be proven, it seems natural to assume that the AcI is still embedded under *ἔδοξεν*:

- (19) ἔδοξεν            τεῖ            βολῆι            Ἡγέλοχον            τὸν  
 seem-AOR.3.SG the-DAT council-DAT Hēgelochos-ACC the-ACC  
 Ταραντίνον            πρόξενον            εἶ- | ναι            καὶ εὐεργέτην  
 Tarantinos-ACC guest-ACC be-PRS.INF and benefactor-ACC  
 ‘It seemed appropriate to the council that Hēgelochos from Tarās be a  
 guest and a benefactor.’ (IG 12:9 187A)

Due to the frequency of this verb in decrees, any account of the grammaticalization of unembedded AcI must reckon with embedding under  $\delta\omicron\kappa\epsilon\acute{\iota}\nu$  (rather than  $\epsilon\acute{\iota}\pi\epsilon\acute{\iota}\nu$ ) as a possible starting point. Since the one example with lexically marked deontic modality is completely isolated, possible scenarios should start from a simple structure  $\delta\omicron\kappa\epsilon\acute{\iota}\nu$  + infinitive or  $\delta\omicron\kappa\epsilon\acute{\iota}\nu$  + AcI. As with  $\epsilon\acute{\iota}\pi\epsilon\acute{\iota}\nu$ , these structures form bridging contexts. Lexically, the verb denotes epistemic modality. Examples for an epistemic reading abound from the Iliad onwards. An original epistemic semantics is also confirmed by attestations of  $\delta\omicron\kappa\epsilon\acute{\iota}\nu$  with nominative subjects, which never show a deontic reading. Additional evidence comes from the fact that it is quite straightforward to derive the stronger deontic reading attested in (19) from the weaker epistemic one than vice versa. In the type exemplified by this example, it is again the context which makes it possible for the speaker to convey deontic modality as an additional side meaning. As with *verba dicendi*, the speaker invites the hearer to infer a semantics “it seems necessary [that  $q$ ]<sub>AcI</sub>”, while the hearer erroneously perceives “it seems [that necessarily  $q$ ]<sub>AcI</sub>”.  $\delta\omicron\kappa\epsilon\acute{\iota}\nu$  is thus as likely a starting point for the change as any *verbum dicendi*.

## 6 Extending the analysis: absolute constructions

Unembedded AcI are just one case of hearer-induced grammaticalization. Another striking example are absolute constructions. In the following, I sketch a possible scenario for the Greek genitive absolute, following the basic ideas put forward in Lowe (2015), which, although intended to account for the Vedic locative absolute, can be applied to the Greek data nicely. The Greek genitive absolute presupposes case syncretism, thus slightly obscuring the origins of the construction (Keydana 1997: 74–77). Nonetheless, a possible scenario can be given within the Greek system.

I follow Lowe (2015: 103) and Ruppel (2013: 211) in assuming that the construction originated in adnominal participles denoting natural phenomena like the rising of the sun or the advent of seasons. Since genitives have a temporal use in Greek, a form like g.sg.  $\epsilon\acute{\alpha}\rho\omicron\varsigma$  could mean “in spring”. An example for this use can be found in the 19th Homeric hymn:

- (20) ὄρνις, ἣτ’ ἔαρος πολυανθέος ἐν πετάλοισι /  
 bird-NOM who spring-GEN flower-laden-GEN in leaves-DAT  
 θρήνον ἐπιπροχέουσ’ ἀχέει μελίγηρυν  
 lament-ACC pour-PRS.PTC.NOM utter-PRS.3.SG honey-voiced-ACC  
 αἰδιγήν  
 song-ACC  
 ‘that bird who in flower-laden spring pouring forth her lament utters  
 honey-voiced song amid the leaves’ (HH 19.17)

Here, the adjective πολυανθέος modifies ἔαρος as an *epitheton ornans*. As such, it has a nonrestrictive reading. The whole NP thus refers to spring as one holistic entity. In the following example, however, the modifier is clearly restrictive:

- (21) ὡς δ’ ὅτε Πανδαρέου κόουρη, χλωρηῖς  
 as PTCL when Pandareus-GEN girl-NOM green-NOM  
 ἀηδῶν / καλὸν αἰδιῆσιν ἔαρος νέον  
 nightingale-NOM nice sing-PRS.3.SG spring-GEN newly  
 ἴσταμένου, ...  
 put-PRS.PTC.GEN  
 ‘Even as when the daughter of Pandareus, the pale green nightingale, sings  
 sweetly, when spring is newly come, ...’ (τ 519)

In a nonabsolute reading, the restrictive participle is used to refer to a “particular manifestation” (Lowe 2015: 104) of spring—its incipient early phase as opposed to other such manifestations as e.g. late spring. The sentence, however, is ambiguous and lends itself to an alternative analysis. Instead of understanding ἔαρος here as a particular manifestation of spring, it can also be taken as referring to the unique holistic concept of spring as in (20) above. Under this reading, however, the participle can no longer be taken to be adnominal, since ἴσταμένου necessarily restricts the meaning of the noun it modifies, and restricting a unique reference does not make sense. Rather, it forces a reanalysis with a sentence-like structure where the participle heads the phrase. This, then, is the absolute construction.<sup>26</sup>

26 It is certainly true that “the temporal genitive is in itself relatively infrequent and unproductive” (Ruppel 2013: 34). However, other cases of potential ambiguity like the ones discussed by Ruppel (2013: 38–41) hardly fare better. It is quite conceivable that the absolute genitive continues an older construction, probably an absolute locative, which originated along the lines sketched here, and that the fact that this construction is marked by the genitive is a result of Greek case syncretism (Ruppel 2013: 220–221, Keydana 1997: 76–77).

Ambiguous sentences like (21) are thus a probable source of the emergence of the genitive absolute. The scenario developed here parallels exactly the one proposed above for the unembedded AcI, where the starting point for the reanalysis is a bridging context. As with the AcI in deontic contexts, the speaker intends one reading, namely early spring as one manifestation of spring. The hearer, however, opts for another interpretation of ἔαρος, viz. that of spring as a unique and holistic concept. As a consequence, this forces him to assume a different syntactic representation. The reanalysis goes unnoticed, since the discourse remains felicitous under the new interpretation. The moment the hearer turns speaker, however, the new construction becomes manifest—at least if used in unambiguous contexts. Absolute constructions are thus another example of hearer-induced grammaticalization.

## 7 Summary

It is undisputed that the embedded AcI in deontic contexts is the source of the unembedded AcI. In decrees and other unambiguous contexts, the message intended by the speaker can easily be conveyed without relying exclusively on lexical meaning. The speaker is thus allowed to invite an inference without risking pragmatic overload. The hearer, on the other hand, is supposed to infer the invited inference that the embedding verb conveys a deontic meaning in spite of its lexical semantics. However, he misparses the implicature: instead of attributing the deontic modality to the embedding verb, he associates it with the AcI. Although this interpretation deviates from the speaker's intentions, it goes unnoticed because the communication succeeds either way. Nonetheless, the reanalysis has significant consequences the moment the hearer conventionalizes the implicature. As soon as the deontic modality is tied to the AcI, this construction can be used to denote just that and is no longer restricted to use in embedded constructions. Conventionalization thus leads to syntactic change. A similar type of hypocorrection lies at the heart of absolute constructions. Thus, both developments point in the same direction: at least some types of grammaticalization and at least some types of sound change work exactly alike. It remains to be seen if it is possible to develop a unified theory of actuation covering both phenomena.



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