An unexpected root clause

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1 Introduction

It is a commonplace in linguistics that non-finite clauses cannot be independent main clauses. How exactly to evaluate this claim in a formal theory depends on how the theory formalizes finiteness, but a common view – found in one variant or another in Hornstein (1990, 115–7, 146–54), Klein (1994), Rizzi (1997), Bianchi (2003), Adger (2007) and Giorgi (2010) – is that finiteness is responsible for anchoring the clause to the actual utterance, e.g. for the interpretation of tense. Since an independent main clause must be temporally anchored to the utterance time, it follows that non-finite clauses cannot be independent main clauses.

In this squib we provide evidence that the Latin infinitival structure known as "accusative and infinitive" (AcI), which has properties that are typical of canonical non-finite clauses, can be syntactically unembedded. When this happens the AcI is *not* anchored to the actual utterance, but is interpreted as a reported utterance, semantically embedded under a report predicate. The report predicate does not syntactically govern the AcI and may only be present in the wider discourse context, or even only be inferable from it.

The AcI canonically consists of an infinitive VP and an accusative DP which is the

subject of the infinitive. AcIs are common as complements of report predicates, like *fateor* "confess" in (1):

(1) ego [me amare hanc] fateor.

I.NOM me.ACC love.INF.PRS her.ACC confess.PRS.1S

'I confess that I love her.' (Ter. An. 898)

The AcI also occurs in longer passages of indirect discourse as shown in (2).

(2) [reddi captivos]₁ negavit [esse utile]₁; [illos enim return.INF.PRS prisoners.ACC deny be.INF.PRS useful they.ACC for adulescentes esse et bonos duces₂, [se iam confectum young.ACC be.INF.PRS and good.ACC officers.ACC himself already consumed senectute]₃. age.ABL 'He denied that it would be expedient to return the prisoners; for, he said, they are

good officers, while he was already consumed with age.' (Cic. Off. 3.100)

This passage contains three reported clauses each of which takes the form of an AcI.¹ The two instances of the infinitive *esse* "be" belong to the first and second AcI; the infinitive in the third AcI has been elided.² We see that the first AcI is sandwiched around the report predicate *negavit* "denied" and that the second and third AcI follow immediately without any additional overt report predicate.

Two explanations for the absence of an additional overt report predicate immediately spring to mind. First, it could be that the three AcIs are asyndetically coordinated and syntactically embedded as a whole under *negavit*. This analysis is ruled out by the context. As the translation makes clear, the overt report predicate is a negative utterance verb and the first AcI expresses what is being denied. The next two AcIs, on the other hand, are

¹Notice that the subject of the first AcI is itself an AcI: what we translate as "to return the prisoners" is really a passive AcI "for the prisoners to be returned". This is orthogonal to our concern.

²Elision of certain forms of the verb *esse* is a general phenomenon in Latin and not restricted to AcIs.

asserted, not denied, and cannot therefore be embedded on a par with the first AcI.

A second possible explanation is that there is an implicit affirmative utterance verb, such as a null form of *dixit* "(he) said", in the structures of the second and third AcIs. This is compatible with the interpretation we expect from the context, and the price we pay, the stipulation of a null verb, is acceptable.

Here we will defend a third analysis that allows us to eliminate the stipulated null verb, whose presence, as we will show below, produces empirically incorrect predictions. Our claim is that while the first AcI is syntactically embedded under *negavit*, the second and third AcIs are syntactically unembedded AcIs. Such cases, then, are counterexamples to the claim that non-finite clauses cannot be independent main clauses.

2 Latin AcIs are non-finite

What exactly is a non-finite clause? There are a number of criteria discussed in the literature, see Nikolaeva (2010) for an overview. Here we look at deficient tense, aspect and mood (TAM) categories, agreement and subject case assignment.

Deficient tense, aspect and mood Infinitives cannot express tense relative to the utterance time (Hornstein, 1990, 147). Infinitives instead either have *bound tense*,³ which means that they are tenseless and use the matrix tense as their own, or have *dependent tense* and express time relative to (but not necessarily identical to) the matrix. For aspect and modality, the typical situation cross-linguistically is that these categories can be expressed but to a more limited degree than in finite clauses (Nikolaeva, 2010, 1180).

Latin infinitives conform to this picture. They have deficient morphology, limiting the TAM categories that can be expressed both in AcIs and in other infinitival structures.

³This is sometimes called anaphoric tense, but we will avoid that term here, since it risks confusion with *discourse anaphoric* tense, which is proper to finite verbs.

Specifically, Latin infinitives never express absolute tense, only dependent tense (in AcIs) or bound tense (in many control structures). (3) illustrates the three possible "tense" forms of the Latin infinitive. (3-a) shows them under a present tense report predicate where they are interpreted relative to the utterance time. In (3-b) the report predicate is in the past and we see that the same infinitival forms are now interpreted relative to some past time:

- (3) a. Marcum bonum esse/fuisse/futurum esse dico.

 Mark.ACC good.ACC be.INF.PRS/PRF/FUT say.PRS.1S

 'I say that Mark is/has been/will be good.'
 - b. Marcum bonum esse/fuisse/futurum esse dixi.

 Mark.ACC good.ACC be.INF.PRS/PRF/FUT say.PRS.1S

 'I said that Mark was/had been/would be good.'

We conclude that Latin AcI structures never express deictic tense, only dependent tense. Similarly, many verbal forms in Latin are marked for aspect and mood, but these categories do not apply to infinitives.

Deficient agreement Agreement, particularly in PERSON, is another phenomenon that is typically deficient in non-finite forms. Here too, there is cross-linguistic variation: certain varieties of Romance have infinitives that agree even in PERSON, and of course there are languages where even finite forms show no agreement in PERSON (or at all).

Latin presents the canonical picture in which finite forms display rich agreement while infinitives do not agree. Indicatives, subjunctives and imperatives all agree in person and number with their subjects in Latin. Participles and gerundives, in contrast, agree with their subject in gender, number and case, while infinitives and gerunds do not agree at all. The exception is periphrastic forms consisting of an infinitive and a participle, but even here the infinitival part of the periphrasis never agrees, as shown in (4) which gives the infinitival paradigm for *amare* "love". The highlighted ending -*am* is the feminine accusative singular

ending, which is used as an illustration here.

(4)		Active		Passive	
	Future	amatur am	esse	amatum	iri
		love.FUT.PTCP	be.INF.PRS	love.SUP	go.INF.PRS.PASS
	Present	amare		amat am	esse
		love.INF.PRS		love.PRF.PTCP.PASS	be.INF.PRS
	Past	amavisse		amat am	fuisse
		love.INF.PRF		love.PRF.PTCP.PASS	be.INF.PRF

No nominative assignment A third feature that sets non-finite forms apart from finite ones is the absence of nominative case assignment. In Latin, finite verbs invariably assign nominative case to their subjects in Latin.⁴ However, non-finite forms (participles and infinitives) typically cannot assign nominative case to their subjects. An apparent exception involves control structures with case connection, i.e. cases where the controllee bears the same case as the controller, but in these cases there is no evidence that the infinitive assigns case to its subject at all.⁵

Such cases apart, the subject of the infinitive appears in the accusative case, even when there is no evidence for raising to an object position, as in the example below where the infinitival clause appears to be the subject of the matrix verb:

(5) ... si eos hoc nomine appellari fas est ... if them.ACC that.ABL name.ABL call.INF.PRS.PASS right is.PRS.3SG 'if it is right to call them by that name' (Cic. Mur. 80)

Similarly, in examples such as (1), the subject of the infinitive appears in the accusative

⁴Barðdal et al. (2012) discuss what they call the "Dative Subject Construction" but, as they admit, they have no evidence that the dative arguments in question are actually subjects in Latin.

⁵The so-called 'historical infinitive' is another, ill-understood exception.

case, but there is no evidence for raising to object. There is disagreement on how these subjects get accusative case, whether the infinitive actually assigns accusative case or the accusative is a default case.⁶ On either analysis, it is clear that the infinitive is unable to assign nominative case, which can be taken as evidence for a reduced structure, if – as in many approaches – nominative assignment is tied to some higher functional projection.

3 AcIs can be independent main clauses

Despite the non-finite nature of AcIs, we will argue that AcIs can be used as independent main clauses, i.e. without any syntactic embedding, in a specific environment, namely so-called *unembedded indirect discourse* (Bary & Maier, 2014), i.e. contexts like (2).⁷ This view obviously relies on there *not* being a null verb embedding the AcI(s) in such examples.

The term unembedded indirect discourse (UID) was coined by Bary & Maier (2014) but their focus was on the semantics for the phenomenon, not whether there is any syntactic embedding or not. They discuss the Ancient Greek discourse particle *gar*, which is the rough functional equivalent of Latin *enim* seen in (2). These particles unambiguously indicate the start of a new sentence and regularly⁸ occupy the second position of their sentences. This strongly suggests a sentence break at the orthographic semicolon in (2), which militates against the coordination view that we dismissed on other grounds in section 1.

However, the presence of *enim* in (2) does not on its own tell us whether the sentence that it introduces contains an embedding null report verb. Bary & Maier (2014) do not address this question explicitly. We will show that a conclusive argument against a null

⁶Recent contributions that argue for case assignment by the infinitive, directly or via another element like null C, include Cecchetto & Oniga (2002); Melazzo (2005); Jøhndal (2012), while Goldbach (2003); Ferraresi & Goldbach (2003); Calboli (2005) favour default case. See Jøhndal (2012, 68-76) for an overview.

⁷Unembedded indirect discourse should not be confused with *free* indirect discourse. In free indirect discourse, pronouns and tenses are shifted but the discourse is otherwise interpreted from the perspective of the reported speaker. For example, there are no *de re* readings of definite descriptions.

⁸But not invariably; see Spevak (2010, 16f) for details on the position of *enim*.

report verb can be constructed if we take the *scope* of the discourse particle into account. Moreover, evidence from rhetorical questions also militate against assuming a null verb.

The discourse particle *enim* in AcIs The discourse particle *enim* "for" is a connective that prototypically expresses a causal relationship between discourse units. A typical example is (6) (from Kroon 1995, 137):

iam eum, ut puto, videbo; misit enim puerum ...'I will see him, I think. For he has sent a boy ...' (Cic. Att. 10.6.5)

We can represent the logical form of the second sentence in (6) as (7). For concreteness we assume that *enim* is somewhere in the CP domain. DEIC-PAST relates the event to the utterance time and marks it as prior to it.

(7) $[_{CP} \text{ enim } [_{TP} \text{ DEIC-PAST } [_{VP} \text{ send a boy } \dots]]]$

Enim scopes over the whole of its sentence and marks the past sending of a boy as standing in a causal relation to some preceding discourse segment. In this case, as in most (but not all), that is the directly preceding discourse segment. Therefore, we infer a temporal relationship between the two sentences: the sending of a boy precedes the seeing. Moreover, *send a boy* is marked with deictic past, meaning that it is past relative to the utterance time.⁹

Let us now look at two examples with *enim* in the vicinity of an AcI. In (8), an AcI is explicitly embedded under the report verb *dixit* "said".

(8) periucundus mihi Cincius fuit ante diem iii Kal Febr ante lucem; dixit **enim** mihi te esse in Italia

⁹In this particular example that is enough to warrant the conclusion that the second sentence temporally precedes the first, since the first sentence has a deictic future, but that is immaterial to the point.

'Cincius was a very welcome arrival (before daybreak, 28 January), for he told me that you [=Atticus] were in Italy ...' (Cic. Att. 4.4.1)

Cicero, writing a letter to his friend Atticus, in the first sentence expresses delight at Cincius' arrival. In the next sentence *enim* signals an explanation of the previous sentence. The LF is as in (9). Notice that REL-PRES here denotes *bound* time, i.e. time relative to some t which is bound by the matrix tense, so that we get simultaneity with t, which – as indicated by the matrix DEIC-PAST – is prior to the utterance time n.

Enim thus relates Cincius's past saying – as expressed by dixit 'said' – to the previous discourse. By contrast, the content of Cincius's saying, the fact that Atticus is in Italy, cannot be a reason for Cincius's arrival to be very welcome. The temporal consequences of the causal relationship are somewhat blurred because of the stativity of the first verb. Nevertheless we clearly do not get the default interpretation of temporal sequence, viz. that Cincius first was a welcome arrival and then told me that you are in Italy. The second sentence is rather the cause for the arrival being welcome. Notice also that the complement clause has a different kind of tense from the matrix: the infinitive esse is a relative present tense bound by the higher past tense and therefore expresses simultaneity with that tense.

Examples such as (8), with *enim* in sentences with overt speech verbs embedding reports could be multiplied and the generalization that emerges is that *enim* always scopes over *the entire sentence*, as in (9). Contrast this with (10). Here *enim* marks the start of a new sentence and, as we have discussed, cannot be coordinated with the first AcI. This means the second AcI cannot be syntactically dependent on the overt verb of saying *dixi*.

(10) dixi [hanc legem Publium Clodium iam ante servasse]₁; [pronuntiare **enim** solitum esse et non dare]₂.

'I said that Publius Clodius had already complied with this law. For, I said, he had been in the habit of promising but not paying.' (Cic. ad Att. 1.16.13)

The context is a law being debated, which makes it legal to promise to pay for votes as long as the payment is not actually made. Cicero reports a joke he made in the Senate, with the second AcI delivering the punchline. *enim* crucially marks a causal relationship between the first AcI and the second one, and this causal relationship is *part of the report*. Therefore, the LF in (11), which uses a phonetically null verb "say", gives the wrong semantics.

[CP] enim [TP] DEIC-PAST [VP] say [CP] [TP] REL-PAST [VP] he is in the habit of promising but not paying []]]]]]

One possibility would be that the correct LF is as in (12), with *enim* in the embedded CP, therefore scoping under the null verb of saying.

[CP [TP DEIC-PAST [VP say [CP enim [TP REL-PAST [VP he is in the habit of promising but not paying]]]]]]

However, this involves the very unattractive assumption that the null verb of saying in (12) can scope over *enim* whereas overt verbs of saying always scope below *enim* as in (9). A simpler generalization is that *enim* always scopes over *all the syntactic material* in the sentence in which it occurs. Given that *enim* in (10) clearly scopes over the content of the report only, this means that the LF must be as in (13).

[CP] enim [TP] REL-PAST [VP] he is in the habit of promising but not paying]]

(13) is correct as far as it goes, in that it represents the assertoric contents of (10). However, a crucial part of the meaning of (13) is that this proposition is *not* asserted in the speech act corresponding to the utterance of (10), but is understood as the assertoric content of another speech event that is available in the context.¹⁰ We assume that the root infinitive gives rise to a presupposition that the proposition expressed by the root AcI is the content of some speech event in the context; see Solberg (2017) for details.

The argument from *enim* can be repeated with a number of other discourse particles expressing Explanation, Contrast and other discourse relations. It can also be made for discourse relations that arise in the absence of overt markers such as *enim*. The details would take us too far into theories of discourse structure, so let us just observe that in longer stretches of indirect discourse, we infer discourse relations between the propositions expressed in the AcIs, not between assertions of those propositions. Moreover, the inferred discourse relations are interpreted as parts of the report, not as parts of the main narration. That is, the narrator does not commit himself to these relations. An analysis in terms of implicit embedding verbs will therefore get the discourse structure systematically wrong.

Evidence from rhetorical questions Latin grammars observe that in indirect speech, ordinary questions (OQ) are reported in the subjunctive and rhetorical questions (RQ) in the AcI (Kühner & Stegmann 1914, 537–538; Ernout & Thomas 1964, 423–424).

(14) (Ariovistus argues that a Roman army has never before left the province of Gaul.)

quid sibi vellet? cur in suas possessiones what.ACC refl.DAT want.IPFV.PST.SBJV.3S why in own.ACC possessions.ACC veniret? come.IPFV.PST.SBJV.3S

 $^{^{10}}$ In (10), the agent of the two speech events is the same, as this is a first person report ('I said ...'), but there are still two distinct events.

"What did he (=Caesar) want? Why had he come to his (=Ariovistus') domains?" (Caes. Gal. 1.44.7-8)

(15) (The Romans hear of an impending attack by the Germans. Aurunculeius argues that they should not leave their camp without Caesar's orders.)

postremo quid esse levius aut lastl what.ACC be.INF.PRS more.undetermined.ACC or turpius, quam auctore hoste de more.undignified.ACC than authority.ABL enemy.ABL about summis rebus capere consilium? most.important.ABL things.THINGS take plan.ACC

"What could be more undetermined and more undignified than to decide on the most important issues on the authority of an enemy?" (Caes. Gal. 5.28)

However, the grammars also note (Kühner & Stegmann 1914, 541; Ernout & Thomas 1964, 424) that this pattern is in fact only found in what we call unembedded indirect speech, i.e. questions that are not directly embedded under an interrogative predicate. Truly embedded (indirect) questions are in the subjunctive even when they are rhetorical (16).

(16) (Sophocles' sons try to get control of his property on the ground of imbecility. In court, he points to his latest work, *Oedipus at Colonus*.)

tum senex dicitur ... recitasse iudicibus
Then old.man.NOM say.prs.3s.pass recite.INF.PRF judges.DAT
quaesisse-que num illud carmen desipientis videretur,
ask .INF.PRF-and whether that poem.NOM imbecile.GEN seem.IPFV.PST.SBJV.3S

'The old man is said to have read [his poem] to the judges and to have asked whether that poem seemed like the work of an imbecile.' (Cic. Sen. 22)

This difference between the apparently unembedded, reported rhetorical question in (15)

and the clearly embedded rhetorical question in (16) means there must be some relevant syntactic difference. The obvious answer is to take the lack of embedding at face value.

4 Conclusion

We have shown that unembedded indirect speech in Latin does in fact involve syntactically unembedded infinitives, i.e. nonfinite root clauses. This is a direct counterexample to the common claim that nonfinite verbs cannot head root clauses.

Root infinitives are not unheard of elsewhere (see e.g. Grohmann & Etxepare 2003). However, they are generally argued to be exceptional in adult speech, and they are associated with a range of non-assertoric meanings such as elliptical answers, jussives/hortatives, rhetorical questions, counterfactuals (Rizzi, 1993) and typically not in long sequences. By contrast, the Latin construction we have been looking at can occur in long stretches of discourse and does express an assertion, although typically not one of the external speaker.

The existence of this construction is an obvious challenge to linguistic theories. It also throws some interesting light on the concept of finiteness. For example, nonfinite forms are often said not to have deictic tense. However, this could be an epiphenomenon of their occurring in dependent clauses that are temporally dependent on the matrix. However, Latin AcIs do not get deictic tense even in root contexts: the interpretation of the tense is always relative to the implicit assertion event.

That is similar to how AcIs in embedded contexts are temporally anchored to their matrix verb. It is tempting, therefore, to expand the binary analysis of finiteness in Adger (2007) (based on Bianchi 2003). On that typology, the Fin projection introduces a variable for the speech event which is either identified deictically in the finite case or bound in the nonfinite case. The Latin AcI suggests that some languages allow a third option: when the speech event variable of a nonfinite clause is not bound from a matrix clause, it can

default to a discourse anaphor, whose reference is determined pragmatically. Whether such an analysis is ultimately tenable remains to be seen, but in any case the Latin unembedded AcI offers an interesting data point that any theory of finiteness will need to deal with.

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