

Adult Root Infinitives

Neven Wenger

University of Frankfurt

Abstract: Adult Root Infinitives (ARIs) are a variety of infinitival structures occurring in root (i.e. main clause/independent) contexts. A central feature that distinguishes ARIs from other root infinitives (RIs, e.g. infinitival *wh*-questions) is their pragmatic meaning: incredulity towards a previously uttered proposition. Other notable aspects are the cross-linguistic availability of ARIs (an Indo-European phenomenon), and the morphosyntactic variation across these languages (e.g. variable Subject Case, or an optional coordinator). As an apparently impoverished and idiosyncratic syntagm, ARIs have often been put forth to argue against generativist-derivational theories of syntax (e.g. Fillmore et al. 1988, Lambrecht 1990). Taking sides with Etxepare & Grohmann (2002 et seq.), I argue that the ARI can well be subsumed under generalised derivational principle like those of Minimalist Syntax (cf. Chomsky 1995 et seq.). The more general discussion of various aspects of the ARI is followed by a sketch of a syntax of (non)finiteness couched within a phase-based minimalist framework.

1 Preliminary remarks

This paper deals with a syntactic construction referred to as *Adult Root Infinitive* (ARI; cf. Etxepare & Grohmann 2002 et seq.). The major part (section 2) is a survey of the grammatical properties of the ARI, mainly a condensed version of Wenger (2008), with occasional supplements. Section 3 updates the analysis to the most recent syntactic framework in the Chomskyan tradition (phase-based minimalism; cf. Chomsky 2001 et seq.).

2 Grammatical properties

Although the focus of this paper is on the morphosyntactic dimension of ARIs, I will first outline some of their other, not strictly grammatical (i.e. syntactic) features, ranging from prosodic to acquisitional properties, in order for the reader to get a feel for it.

2.1 Discourse-pragmatics, prosody, semantics & ontogenetic variation

As shown in the following mini-discourse (speaker A – speaker B), the illocutionary force of the ARI is to express incredulity (orthographically marked by ‘!?’) towards a previously uttered proposition (within a reference turn; cf. Bücken 2008¹). Typically, it is preceded by another, simplex interjection of incredulity (*What!?*), and/or followed by a dissentive expression confirming the incredulity raised by the preceding ARI.

- (1) A: I heard Quagmire’s preparing a paper for the forthcoming MLC18 proceedings... – B:
What!? *Him prepare a paper!?* No way, dude! He’s got other things on his mind...

The incredulity expressed by the ARI also correlates with a distinct prosodic structure: the Subject obligatorily bears focal stress (represented by caps), and the intonation contour of ARIs is final-rising (a global rise, typical of open interrogatives; represented by ‘[↑]’)².

¹ Hence one of its alternative labels *Incredulity Response Construction*, due to Lambrecht (1990).

² There’s seems to exist a prosodic variant with falling intonation (orthographically marked by ‘...’ instead of ‘!?’) and unfocussed Subject: *Yeah, yeah... Him like books...Whatever you say...* In this case, however, the ARI seems to express something like ‘non-genuine incredulity’, with a sarcastic undertone. Although I won’t be discussing this prosodic alternant, the *syntactic* (pragmatics notwithstanding) analysis presented in sections 3 should carry over to it.

- (2) HIM prepare a paper [↑]!?

Another property of the ARI, reflected in its attribute *adult*, is that it is restricted to adult registers. This is an important qualification since root infinitives (RIs) are far from uncommon in *child* language – indeed, at least during one stage of language acquisition, Child Root Infinitives (CRIs) make up the majority of utterances (cf. Rizzi 1993; (3) from Radford 1990).

- (3) a. Baby eat cookies. – CRI
b. The baby eat cookies!/? – ARI

However, despite the formal resemblance of CRIs to ARIs, they differ in one crucial respect: CRIs may in principle have one of a whole range of aspectual, temporal, and modal, as well as illocutionary meanings – a degree of polysemy (or, grammatical underspecification) that presumably needs (post-syntactic) disambiguation based on contextual information (cf. Avrutin’s 1999 approach to RIs). Accordingly, (3) may be variably translated into adult English as ‘The baby eats/is eating/ate/should eat/... cookies’. ARIs, on the other hand, are rather specialised in that they can only carry what might be dubbed *incredulitive force* (as discussed above). Interestingly, the functional domains of CRIs and ARIs seem to be mutually exclusive: CRIs can express almost any of the aforementioned meanings, with the exception of incredulity, to which, in turn, ARIs are restricted. This opposition is also reflected in the relative frequency of ARIs vs. CRIs in natural discourse: While CRIs – as pointed out above – are an omnipresent phenomenon of child language, ARIs seem to occur considerably less frequently in adult speech³. Finally, in addition to its special incredulitive force, there is another feature that distinguishes ARIs from CRIs, which is the irrealis semantics typical of infinitives: they denote situations/propositions evaluated w.r.t. a non-actual (‘unreal’, hence *irrealis*) world. CRIs, on the other hand, may be realis in that they can be used to assert⁴.

With this rough outline of the prosodic and discourse-pragmatic properties of ARIs, including a brief comparison of ARIs with CRIs, I now turn to the morphosyntactic characterisation of ARIs.

2.1 Morphosyntax

2.1.1 Restriction to root domain

The attribute *root* of the ARI refers to the fact that ARIs occur as independent main clauses only (clauses forming the root (domain) of an upside-down syntactic tree graph). This is noteworthy in so far as nonfinite structures (infinitives, gerunds, participles, etc.) appear to be restricted to dependent/subordinate contexts, as the following example of nonfinite

³ In wildlife, the ARI seems to be a shy creature: I could not succeed in digging up *any* instances of ARIs engaging in corpus research (which might be due to my limited technical proficiency; cf. Bückler 2007, 2008 for a number of attested German ARIs from internet newsgroups). However, from personal experience I have got the impression that the ‘major sentence types’ (i.e. declaratives, interrogatives, etc.) *by far* outnumber ARIs in naturally occurring discourse (or in media imitations thereof). Occasionally, however, exactly when a speaker is in need of expressing situation-bound (i.e. spontaneous-expressive) incredulity, one may well be able to spot an ARI in its natural habitat, more or less by accident, though.

⁴ I write ‘may be realis’ since it is actually hotly debated within research on CRIs what their semantics is in terms of modality. Thus, some authors maintain that CRIs do exclusively express irrealis modality (cf. Hoekstra & Hyams 1998).

complements show (which yield ungrammatical sentences standing alone, e.g. *My thesis finished*; cf. (d)):

- | | | |
|-----|-------------------------------------|---------------------------------------|
| (4) | a. I'll make [him like books]. | – CAUSATIVE (BARE INFINITIVE) |
| | b. I want [him to like books]. | – VOLITIONAL (<i>TO</i> -INFINITIVE) |
| | c. I saw [him reading]. | – PERCEPTIVE (PRESENT PARTICIPLE) |
| | d. I consider [my thesis finished]. | – 'SMALL CLAUSE' (PAST PARTICIPLE) |

ARIs, on the other hand, not only are restricted to root contexts, but moreover, they cannot be embedded at all (under equivalent – i.e. incredulitive, or dubitative – predicates). They are a root phenomenon⁵.

- (5) *I doubt/wonder/don't believe [*him like books*].

Potts & Roeper (2006) offer a pragmatic/semantic explanation for the unembeddability of ARIs: ARIs only have use conditions (expressive meaning), but no truth conditions, which according to them is a prerequisite for embeddability. Of course, under a syntactic view of (categorial and/or semantic) selection, the non-embeddability of ARIs raises the question why other nonfinite complements (like those in (4)) (which must be sensitive to selectional constraints, since a perception verb like *see*, for example, can only select a bare infinitival, but no *to*-infinitival), *can* be embedded although they lack truth conditions as well (a nonfinite complement like [*him smoke*] is non-propositional in the relevant sense, and can thus not be true or false). It might be that, because embedded nonfinite structures in general seem to lack both use and truth conditions, one might have to formulate a negative constraint: the availability of use conditions prevents embedding.

While the restriction of ARIs to root domains is already exceptional within a language-specific system (like English), even more interestingly, this oddity seems to be available to one Indo-European language after the other, as sketched in the following typological section.

2.1.2 Cross-linguistic distribution

As shown by Etxepare and Grohmann (2002 et seq.) and Bückler (2008:7), the ARI is no phenomenon restricted to central European languages⁶. At least for the following languages (language families) the availability of the ARI is attested: Germanic (German, Dutch, English, Swedish, Norwegian), Romance (French, Spanish, Portuguese, Galician, Catalan, Italian), Slavic (Polish, Russian, Latvian), Uralic (Hungarian)⁷.

Although the ARIs of different languages seem to share a set of core characteristics, they do differ along specific dimensions. As Grohmann and Etxepare (2003) and Etxepare

⁵ There exist yet other types of RIs, such as infinitival *wh*-interrogatives (cf. Reis 2003 for German): *Warum nur Linguistik studieren?* 'Why (only) study linguistics?'. Ultimately, these (and other) RIs should share a derivational commonality, the additional domain of variance having to do with illocutionary meaning.

⁶ Nonetheless, research in the domain of both root nonfiniteness in general and ARIs in particular still awaits to be extended to non-European, typologically dissimilar languages. A major problem in this respect is posed by the imprecise semantic and morphosyntactic definition of the notion of finiteness (cf. Nikolaeva 2007 for an overview and different views; cf. Wenger 2009 for my own standpoint), which, coming from a European tradition, where it has more or less been likened to the category of tense, faces considerable trouble given e.g. morphologically tenseless languages (cf. Ritter & Wiltschko 2005 on this topic).

⁷ My own preliminary research has produced two other, Slavic languages that possess ARIs: Bulgarian and Croatian (and, by extension, possibly other languages of the former Yugoslavia). From a broader cross-linguistic perspective (also with respect to finiteness in general), Bulgarian might prove particularly interesting since it does not have an infinitive, but a functional equivalent: the subjunctive (plus a concomitant subjunctive particle (*g)da*). Thanks to my informants Iwo Iwanov and Iva Riekert-Wenger.

and Grohmann (2007) show, for instance, variation exists in the compatibility with quantificational Subjects, the permissibility of discourse-fronted material (topics, etc.), or the availability of temporal-aspectual modification (e.g. deictic adverbials, perfect auxiliaries).

Instead of elaborating on the typological dimension (cf. Wenger 2008 for more discussion), I would like to take one step back in what follows, and examine the ARI from more basic angle, discussing whether the ARI constitutes a unified, integrated syntagm that can be subjected to syntactic analysis at all.

2.1.3 Subject Case

The common characterisation of the morphosyntax of infinitives (and of nonfinite structures in general) includes the absence of Subject-verb agreement (SVA), of verbal tense inflection, and of overt nominative (NOM) Subjects. Evidently, the latter criterion is only partially met in ARIs, which *do* have overt Subjects, which in English, however, surface in the accusative (ACC) form (visible if pronominal)⁸:

- (6) *Him*_{[ACC]/*He}_[NOM] prepare a paper!?

As in generative theory it is required for overt Subjects (all DPs more generally) to be Case-marked (this intuition goes back to at least Vergnaud's (1977 [2008]) Case Filter), the central question with regard to the ARI Subject is where its Case stems from. Structural Cases, i.e. nominative and accusative, are considered to be assigned in particular configurations, by particular categories: Thus, while ACC is typically assigned to direct Objects by transitive verbs, NOM (a.k.a. Subject Case) has typically been correlated with 'finite' I (1980s), later on 'finite' T (1990s) – ultimately with a [+Tense] category (cf. Chomsky 1981:19). A Subject agreement feature *Agr_S* (i.e. SVA), either contained within I (Chomsky 1981), or projecting independently (*Agr_SP* > TP; cf. Pollock 1989; Belletti 1990), has always been considered a licensor for [NOM] as well (as opposed to [+Tense]), at least since George & Kornfilt (1981). The correlation between *Agr_S* and NOM re-entered the latest revision of generative theory – minimalist syntax – as [NOM] being a post-syntactic reflex of SVA (now complete [*uφ*] on T instead of *Agr_S*; cf. Chomsky 2001:6, 16). Whatever the licensor of [NOM], it has rarely been conceived of as primitive, but always as contingent on another morphosyntactic property.

Provided such a theory of Case, ARIs beg the question of what licenses their [ACC] Subjects – it cannot be a (higher) predicate (as in ECM-clauses; cf. (4)), nor, obviously, a [+finite]-feature (be it [+Tense], or SVA). Besides structural Case (and inherent Case, i.e. dative/oblique), there exists yet another 'type of Case', which seems to be operative in ARIs: *default Case* (cf. Schütze 1997). In certain syntactic environments, where no structural Case-assigner is available (V[+trans], I[+fin]), some sort of default mechanism⁹ kicks in, which provides an unvalued Case feature with a default value, thus 'rescuing' a derivation (cf. the Case Filter mentioned above: 'overtness requires Case'). This default Case appears to be identical with the unmarked nominative Case in most of the relevant languages (e.g. German); English, however, produces [ACC] Subject Case in a number of environments where an explanation based on default Case seems reasonable, there being no other possible Case-assigner:

- (7) a. *Him*/**He*/**His* sleeping, I went out alone. – PARTICIPLE CLAUSE
 b. A: Who is it? – B: It's *me*/**I*/**my*. – FOCUS POSITION

⁸ This seems to be also true of French: *Lui*_{[ACC]/**Il*}_[NOM] *aimer les livres!*? 'Him like books!?'.

⁹ This mechanism, which provides nominals with a default Case (and operates more generally in terms of a default grammar; e.g. infinitival morphology might be another case at hand), is construed as a post-syntactic, morphological process, as implemented in Distributed Morphology (cf. Schütze 1997 for details).

What these nonfinite domains share is the lack of a Case-assigner, which is why the default mechanism kicks in, providing the Subjects with the English default Case [ACC] (and not, say, [GEN])¹⁰.

To conclude this subsection, I would like to briefly compare two alternative approaches to the Subject Case of ARIs with the superior (because more economical) default strategy. The prosodic nature of the ARI Subject, i.e. their being obligatorily focussed, is one obvious candidate for the source of the [ACC] Case, the idea being that focus yields some kind of a strong pronominal form, on the assumption that the English [NOM] pronouns are too weak, in terms of their lexical-phonological complexity, to bear focal stress. Whatever the pronominal status of English pronouns (strong, weak, clitic; cf. Cardinaletti & Starke 1999 for an overview), however, it is rather easy to demonstrate that focussing a pronoun does not necessarily yield [ACC] Case (indeed, excludes it), which would be unexpected given the obligatoriness of [ACC] in ARIs:

- (8) a. *HE* is the double agent (, not Herbert)!
 b. ?**HIM* is the double agent (, not Herbert)!

Here, the Subject pronoun bears a contrastive focus (as indicated by the bracketed *Herbert*, one member of the contrast set), but receives [NOM] rather than [ACC] Case, which actually yields at least a deviant sentence (marked ‘?’), if not ungrammatical. Although the focus of ARI Subjects seems to be of a different nature than contrastive focus (incredulity, rather than contrast), it is reasonable to dissociate focus assignment from Subject Case licensing, given the heterogeneous distribution of both categories (also cf. (7) above).

The second alternative explanation is related to one class of nonfinite structures licensing [ACC] Subject Case, where in some cases an overt, non-verbal Case-assigning element is available (prepositional COMPs; (a, b)), in some cases none at all (c, d):

- (9) a. I want [for *him* to read less Chomsky]. – *FOR...TO*-INFINITVAL
 b. [With *him* gone to bed], the party started. – ‘SMALL CLAUSE’
 c. [*Him* distracting the cat], I was able to grab its tail. – PARTICIPIAL CLAUSE
 d. [*Him* kissing the goldfish] is a disturbing image. – CLAUSAL GERUND

These clauses all have in common that there is no finite predicate assigning the [ACC] Case to their Subjects, as in ‘ECM’-infinitivals (e.g. *I want him to read less Chomsky*). However, the nonfinite clauses in (a, b) are headed by prepositional COMPs (*for* and *with*), which might act as Case-assigners¹¹. Now, one methodological cornerstone of generative theory being maximal reduction of various phenomena to common sources (i.e. generalisation), one might envision an analogical extension of (a, b) to (c,d) *qua* null COMPs (something that is done e.g. in Radford (2009), possibly for textbook didactics). Thus, while as for (a, b) it is the nonfinite COMPs *for/with* in C that assign [ACC] to the Subject ‘under government’, this is achieved by the null COMP (‘Ø’) in (c,d) (provided the tripartition of the clausal spine into CP > IP > vP¹²; cf. Carnie 2008: ch. 11 for a concise but illuminating overview):

¹⁰ Visser (1963:237ff.) identifies [NOM] as the default Case for older stages of English.

¹¹ Indeed, it is uncontroversial that their properly prepositional counterparts (and possibly their diachronic sources) do assign [ACC].

¹² Little *v* (aka. light *v*) is a verb of very abstract conceptual semantics, which comes in different variants (cf. Kratzer 1996). Most often, it is a light verb denoting agentivity (= causation), which lies at the heart of the notion of transitivity. Semantically speaking, the idea actually is an old one (going back to Generative

- (10) a. I want [_{CP} [_{C°} for]_[ACC] [_{IP} *him*_[ACC] [_{I°} to] [_{VP} read less Chomsky]]].
 b. [_{CP} [_{C°} ∅]_[ACC] [_{IP} *Him*_[ACC] I° [_{VP} kissing the goldfish]]] is a disturbing image.

One domain of inquiry central to generative theory are infinitival structures such as Control, raising, and ‘ECM’-infinitivals. What is essential here is that these are all dependent on (= selected or licensed by) a higher predicate. Accordingly, the source of the [ACC] Case of Subjects in nonfinite argument clauses (= Complements) has been ascribed to the dependency between matrix predicate and embedded Subject, something that is evidently not an option with the relevant examples above, which are Adjunct (= ‘non-selected/-licensed’, thus omissible) clauses. Importantly, the study of nonfinite Complementation (cf. Bošković 1997 for an elaborate survey) has produced an asymmetry w.r.t. the structural complexity of Control and COMP-infinitivals on the one hand, and raising and ‘ECM’-infinitivals on the other: While the former are considered CPs¹³, the latter are considered truncated (= reduced) to IP, essentially for the lack of any evidence to the contrary. This structural asymmetry is reflected in the different mobility of e.g. Control vs. ‘ECM’-infinitivals:

- (11) a. [_{CP} PRO_k To read less Chomsky]_i is what I_k promise *t_i*.
 b. *_{[IP} Him to read less Chomsky]_i is what I want *t_i*.

In a nutshell: Only CPs can be moved (pseudo-clefted, topicalised), passivised, phonetically isolated, etc., but IPs cannot. While these contrasts may prove valid, it is far from clear that they are reducible to the contrast in structural complexity – the CP vs. IP opposition retains an *ad hoc* flavour. What is worse is that these differences (or at least some of them) do not seem to extend easily to the Adjunct clause given in (9c, d) above. While their similarity to ‘ECM’-Complements (no overt COMP, [ACC] Subject Case) suggests a treatment as IPs, they are not subject to the same mobility constraints¹⁴:

- (12) a. It is [_{?P} him kissing the goldfish] that is a disturbing image. – CLEFT
 b. What is a disturbing image is [_{?P} him kissing the goldfish]. – PSEUDO-CLEFT

Thus, the categorical status (CP vs. IP) of the clausal gerund in (12) remains unclear (?P). In any case, attractive as a generalisation of superficially different nonfinite structures to a uniform structural representation might be, I think it misses a central desideratum of minimalist theory: economy. All that e.g. a null COMP theory of the nonfinite Adjuncts discussed above does is extend the explanation of one phenomenon (i.e. Case-assigning prepositional COMPs) to another one (i.e. COMP-less nonfinite clauses with [ACC] Subjects), while there is an equally adequate, but, importantly, more economical solution readily available, not appealing to an *ad hoc* stipulation like null COMPs: default Case. Therefore,

Semantics; cf. e.g. Katz & Fodor 1963): transitive verbs like *kill* are decomposed into a CAUSE part and a lexical part, but now also syntactically with compositional V-to-v movement (this is particularly relevant to ditransitive verbs, not discussed here). Thus, a sentence like *Kain killed Abel* might be paraphrased as *Kain CAUSEed Abel to DIE*. For the present purposes, *v* is intended to represent the syntactico-semantic complex V+v.

¹³ The particulars of Control theory shall not bother us here. In short, Control infinitivals contain a null Subject PRO, which is coreferential with (= controlled by) the matrix Subject/Object. In addition, as any nominal – be it overt or null – is assumed to need Case, PRO is taken to receive null Case by I. The null C is motivated by mobility tests discussed in the text. There have been other controversies in Control theory, which cannot be discussed here (cf. Davies & Dubinsky 2004 for an historical overview.)

¹⁴ Granted, copular sentences, and clefts, and pseudo-clefts in particular, are a difficult case in their own right. The asymmetry in grammaticality w.r.t. mobility between the Adjunct clause in (12), and the ‘ECM’-clause in (11b), however, remains a fact.

instead of assuming null Case assigners wherever a non-canonically Case-marked Subject occurs in a nonfinite structure, I maintain the more economical approach based on default Case assignment (prepositional COMPS notwithstanding).

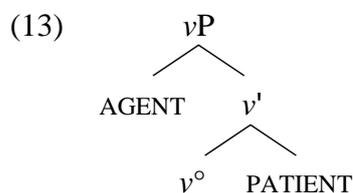
Against this background, I would like to discuss in the following section evidence for and against the structural complexity of ARIs. More concretely, based on the tripartition of the clause into CP > IP > vP (where each phrase is likely to stand for a more fine-grained clause structure along the lines of Cartographic approaches to phrase-structure; cf. Rizzi 1997, among many others), boils down to the question: Are ARIs CPs, IPs, or vPs?

2.2 The phrase-structural complexity of ARIs

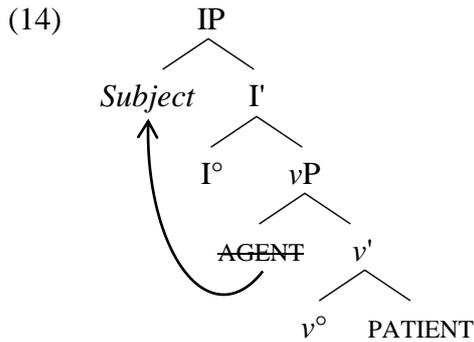
2.2.1 Minimalist syntax

On the next two or three pages I give a concise account of the essentials of the most recent framework of generative syntax, hoping that the following discussion will be much easier to follow.

Syntactic theory in the (mainstream) generative vein (evolving around Chomsky's works), which in its latest incarnation (going back to Chomsky 1993) might be referred to as *minimalist syntax*, assumes a phrase-structural skeleton for each clause (reduced clauses being excluded for now) consisting of three domains nested within each other like in a Matryoshka doll: CP > IP > vP. The lowest, verbal domain vP is where argument structure is licensed in a uniform fashion, as thematic roles (AGENT, PATIENT, etc.) are concerned (the so-called *Universal Theta-Assignment Hypothesis* (UTAH), first formulated in Baker 1988). Thus, AGENT nominals are always licensed in the Spec(ifier) of vP as an external argument, and PATIENTS (a.k.a. THEMES in generative vocabulary) as the sister (i.e. the Complement) of vP as internal arguments.



What is particularly interesting in this respect is a contrast in thematic structure deriving from the split of intransitive verbs into two classes: verbs that have a PATIENT-like Subject (unaccusatives, e.g. *fall*), and those that have an AGENT-like Subject (unergatives, e.g. *dance*). Provided the UTAH is valid, unaccusatives, lacking external arguments, would evidently fail to yield the actually observed surface word order of intransitive-unaccusative sentences if their PATIENT argument were spelt out *in situ*, i.e. as the Complement of *v*. Rather, they would produce the ungrammatical **Fell the guillotine* instead of the correct *The guillotine fell*. This line of argumentation is the base of the *VP-internal Subject Hypothesis* (VPISH), which captures one aspect a principle like the UTAH entails – that the notion of Subject is a derivative one. Thus, it is assumed that the Subject-to-be argument (be it AGENT, PATIENT, etc.), i.e. the highest nominal within the vP, moves from its vP-internal position to (the Spec of) a higher, vP-external one, becoming the grammatical Subject. The Subject position is generally assumed to be the Spec of IP (or of another I-related head – or of an even higher one, under particular circumstances, as proposed in more recent works; cf. e.g. Rizzi & Shlonsky 2006, 2007).



The inflectional head I of the clausal domain superseding vP not only licenses Subjects in its Spec (implemented as a feature [EPP] scanning the domain in its scope for a nominal and attracting it), but also hosts Tense, Aspect, and Modality/Mood features (all ultimately surfacing as verbal inflection), as well as an Agreement (more precisely, a SVA, or, in more recent generative vocabulary, a φ -feature comprising PERSON, NUMBER, and GENDER), and a feature related to Subject Case, i.e. [NOM]¹⁵. The rough idea behind this feature accumulation around I goes as follows: If finiteness can be equated with morphological Tense (but cf. the discussion below), which is licensed by I, then SVA must be licensed around I as well since it only surfaces in finite environments. The same holds for [NOM], which is the typical Subject Case in *finite* contexts (default [ACC] Case being the nonfinite counterpart; cf. above). If I contains no Tense feature, however, i.e. if it is nonfinite, it still seems to be able to attract a Subject to its Spec position – as the preceding discussion of e.g. ECM-infinitivals has shown –, the difference with regard to finite I being the lack of Tense, SVA, and [NOM].

With this rough outline of the principles behind the derivation of your typical indicative sentence, I am now in the position to discuss the structural complexity of ARIs. The section immediately following will – as announced above – take the discussion of the syntax of ARIs one step back, and address whether ARIs qualify as ‘clauses’, i.e. as unified, integrated syntactic structures, at all. This will be followed by a discussion of ARIs as structures of different, increasing complexity, ranging from vP to CP.

2.2.2 ARIs as clauses

While, intuitively, the ARI might come across as a clause proper, on closer inspection, from a narrowly syntactic perspective, things are not as straightforward. Certain of its characteristics, to be addressed in what follows, raise the question of whether ARIs are really mono-clausal, i.e. one syntactically unified phrase (vP , IP, CP), or rather bi-phrasal, i.e. two syntactically distinct phrasal chunks.

The first controversial aspect is the intonational (prosodic) structure of ARIs. Thus, speaker judgements differ as to whether ARIs form one intonation phrase (IntP) (a), or rather two distinct ones (b):

- (15) a. [_{IntP} HIM like books]!? – UNIFIED INTONATION CONTOUR
 b. [_{IntP} HIM]!? [_{IntP} Like books]!? – COMMA INTONATION

Thus, a prosodic structure like (a), representing a unified intonation contour, would support a mono-clausal analysis of ARIs, while the comma intonation in (b) might favour a bi-phrasal

¹⁵ In what follows, these aspects of the I-domain are heavily simplified for presentational purposes. Actually, the relation between Tense, SVA, [NOM], and finiteness have been undergoing constant revisions at least since Chomsky (1981).

one (with connectivity possibly established post-syntactically). Solely on prosodic grounds, the question cannot be easily settled. Thus, the most careful observation to be made would be that prosodic variation exists with ARIs, with a unified intonation contour and an interrupted one (comma intonation) coexisting. However, this entails the question of whether we are dealing with two distinct *syntactic* phenomena, or with only one, which is prosodically variable. While this might be hard to answer, there is evidence that at least the prosodic subset represented in (a) also constitutes a unified syntactic domain.

A classic diagnostic for clausal domains is binding theory (cf. Chomsky 1981), in particular the coreferential binding of reflexives like *himself*, etc. (*anaphors* in generative terminology; coreferentiality indicated by co-indices), which is captured by the binding condition A (here, a simplified version by Büring 2005:55; for the original formulation, cf. Chomsky 1981:188): “A reflexive must be bound within the smallest category [α] containing it, its case assigner, and a Subject”. Put even more simply, a reflexive and its antecedent must be *clause-mates* (clause = domain/smallest category α). Otherwise, a clause containing a reflexive would not be well-formed, as shown by the following example, where the reflexive *himself* does not find an appropriate antecedent within α (requiring the personal pronoun *him*):

- (16) Courtney_i and Kurt_k have just married. But he_k knew [α that she_i didn’t love him_k/**himself*_k].

As it stands, reflexives do not pose any problem in ARIs – of course provided their antecedent is contained within the same domain:

- (17) I’ve just heard that Kurt committed suicide... – What!? [α Kurt_i kill *himself*_i/*him_i]? This can’t be true!

If the ARI in (17) were represented as a bi-phrasal structure, the grammaticality with a reflexive (*himself*) contained in it would be unexpected: As shown in (16), a reflexive should not be able to occur in a ‘clause’ (α) on its own, without an antecedent. Thus, what is deviant in the following representation is the notation indicating the syntactically licensed coreferentiality between a reflexive (*himself*) and its antecedent (*Kurt*), which is at odds (marked by a starred index) with the insights gained from Binding Theory (viz. that both must share a domain). This would be a wrong binding-theoretic prediction since the ARI per se is of course well-formed containing a reflexive:

- (18) [α Kurt_i]? [α Kill himself_{*i}]?

While the preceding argument from binding-theoretic considerations relies on a negative/indirect line of argumentation, another, more clearly morphosyntactic one comes from the phenomenon of inflected infinitives. As laid out above, ARIs are available in a whole range of languages (language families), among them Portuguese. Now, interestingly, varieties of the latter possess an *agreeing infinitives*, i.e. infinitives morphologically marked for SVA (the following is an example from Brazilian Portuguese (BP)¹⁶).

- (19) Eles saírem cedo de casa!? Impossível!
 PRN.3PL get.out-INF-3PL early of home impossible
 ‘Them leave home early!? Impossible!’

¹⁶ Thanks to Marcello Modesto for the Brazilian Portuguese data. It should be added that the agreeing infinitive in BP might be restricted to particular registers/varieties.

Whatever the specific implementation, most theories assume that agreement (SVA being a specific subcase) is a *local* dependency between two elements, i.e. one holding within certain syntactic domains (of variable complexity), but never across sentences¹⁷. Trivially, in order for the BP infinitive to surface inflected for φ -features (i.e. *saírem* instead of *saír*), then, the Subject pronoun *eles* must share with the verb *saír* a unified, local domain – one phrase (= a clause), not two distinct ones¹⁸.

A third, strong piece of evidence for the mono-clausal analysis is provided by investigations of the left-peripheral activity in ARIs (Do they license topics, etc.?). As this point will be taken up in 2.2.4 in more detail, I here provide only one example from Spanish, which allows for clitic left dislocation (CLLD) in ARIs, whereby a constituent is fronted to the left, leaving behind a resumptive clitic pronoun¹⁹ (example from Etxepare & Grohmann 2005:130):

- (20) [Las elecciones]_i [ganar-[las]_i]_k Schröder *t_k*!
 the elections win-them.CL Schröder
 ‘Schröder win the elections!?’ (#The elections, Schröder win!?)

Given that the unmarked, assertive-futurate ‘base form’ of the sentence is *Schröder ganará las elecciones* ‘Schröder will win the elections’, i.e. SVO word order, the information-structurally modified (20) not only has its direct object *las elecciones* ‘the elections’ moved to a left-peripheral topic position, but also the infinitive *ganar* ‘win’ moves higher than the Subject *Schröder* (be it in Spec ν P or SpecIP). If the Spanish ARI in (20) would really be constituted by two phrases, movement operations like CLLD – from one phrase into another one – would clearly be unexpected, even prohibited under the general ban on transsentential movement.

A final, somewhat conceptual, argument derives from the minimalist theory of thematic structure (UTAH) discussed above: In short, if any ν is subcategorised for a specific number of arguments, these must be exhaustively satisfied in the course of the syntactic derivation of any ν P. If the ARI were taken to consist of two phrases – one containing the predicate, one the Subject –, then the predicate phrase (ν P) would clearly violate any conditions formulated within such a theory given that no external argument would be licensed (not to mention the unaccusative–unergative divide).

I take the evidence from connectivity and movement (binding, SVA, CLLD) to indicate that at least a (prosodic?) subset of ARIs must constitute a unified clausal structure. It is this very subset that is of interest here. What remains to be examined, then, is the structural complexity, i.e. the categorial status, of ARIs (roughly: ν Ps, IPs, or CPs).

¹⁷ Of course, while agreement dependencies are also formed transsententially in discourse (e.g. any personal pronoun without a referring expression in the same clause), this would not qualify as syntactic agreement in the narrow sense, which – contrary to discourse agreement – is subject to domain-specific locality constraints.

¹⁸ Whatever the exact approach (feature sharing, feature valuation, etc.), the idea in minimalist syntax is that the verb initially is not specified for φ -features, receiving them in particular syntactic configurations (e.g. in finite clauses) by a local agreement partner, i.e. the Subject, which is inherently specified for φ -features from the beginning of the derivation (for a more detailed sketch of the derivation of SVA, cf. 2.2.1 above).

Of course, the question why BP licenses overt Subjects and concomitant SVA with *infinitives* in the first place, while languages like English obviously do not, is a legit one. For the present purposes, however, this is not of relevance, since it is the local constraint on dependency formation (SVA) that matters, not exceptions to it that possibly result from cross-linguistic (morphological) variation. Cf. e.g. Landau (2004) for a discussion of the syntax of the peculiarities of (some) infinitives from a cross-linguistic perspective.

¹⁹ Alternatively, one might analyse both the left-dislocated constituent and the resumptive clitic as base-generated.

2.2.3 ARIs as vPs

Once the syntactically unified nature of ARIs has been established, the most minimal way of analysing them would be as bare vPs. The notion of ‘bare vP’ is closely related to theories of Small Clauses (SCs; cf. Williams 1975), which are verbless predicational structures like the following:

(21) I consider [_{VP} Fritz a moron]. (‘I think Fritz *is* a moron.’)

In principle, there are three options to deal with SCs syntactically in order to determine their categorial status: (i) as exocentric structures labelled *SC*; (ii) as endocentric structures headed by the predicate (A, P, D²⁰, or v/V); or (iii), as vPs headed by a covert predicator similar to *be* (v_{BE}, but not A, P, or D).

(22) a. I consider [_{SC} [_{NP} Fritz] [_{DP} a moron]].
b. I consider [_{DP} [_{NP} Fritz] [_{D°} a] [_{NP} moron]].
c. I consider [_{VP} [_{NP} Fritz] v^o_{BE} [_{DP} a moron]].

Interestingly, a corpus-based, empirical perspective shows that most tokens of the ARI – as rarely as it may occur compared to other syntactic ‘constructions’ – instantiate a verbless, SC-like structure, most often an adjectival one (the following German one is attested):

(23) Ich schwanger!?
PRN.1SG pregnant
‘Me pregnant!?’

Disregarding option (i), one might attempt to subsume both verbless and verbal ARIs under a SC-analysis, be it along the lines of (ii), or (iii). Indeed, this is assumed by Progovac (2006) in her survey of various nonsentential structures, among them the ARI, which she refers to as *verbal Root Small Clause* (VRSC), i.e. a main clause headed by v/V (= vP).

However, beyond these basic observations, there exists evidence for a more complex syntactic structure for ARIs that cannot be discarded.

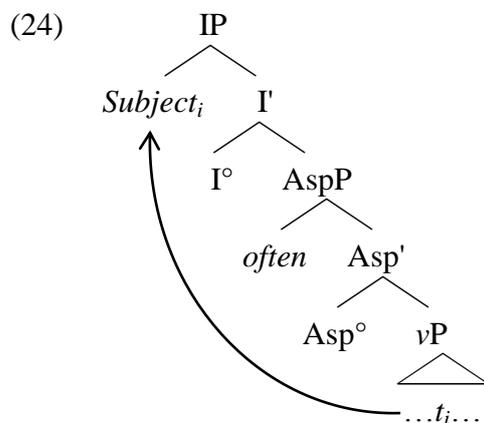
2.2.4 ARIs as IPs

No matter how one would syntactically represent an adjectival SC as that in (23) (as SC, AP, or vP), the asymmetry between the thematic structure and the surface syntax of unaccusative verbs ([_{VP} *fall he*] vs. *He fell*) strongly suggests a structure even more complex than vP, according to the thematic theory outlined above. While this might be an argument resting on theory-internal grounds, modification of ARIs by aspectual adverbs (like *often*) shows that there must be more structure than a thematically complete vP since semantically these adverbs need to take scope/quantify over a whole eventuality, which is syntactically represented by vP (‘It is ASPECT_{often} [that AGENT v PATIENT]’)²¹. In conjunction with the VPISH, then, adverbial

²⁰ In generative theory, what had been known as nominal phrases (NPs) have been treated as Determiner phrases (DPs) at least since Abney (1987).

²¹ A short note on the syntax of adverbs within minimalism: At least since Jackendoff (1972), it has been assumed that adverb classes are limited to particular zones (domains) of a clause, mostly three (as with Jackendoff: speaker-oriented (CP/S’), subject-oriented (IP/S), manner (VP)), or more (as exhausted by Cinque 1999, whose adverb hierarchy spans 30 functional categories). Irrespective of the partitioning of the clause w.r.t. adverbs, and irrespective of the explanatory source of any ordering restrictions represented by such hierarchies (syntactic vs. semantic), such hierarchies have proven a useful diagnostic in defining the complexity of syntactic

modification yields a schematic structure along the lines of the following representation, where the highest ν P-internal nominal must have moved across the adverb *often* (be it in SpecAspP, in the outer Spec ν P, or maximally adjoined to ν P):



Interestingly, ARIs are not only compatible with adverb types that modify the eventuality (i.e. ν P) as a whole, but also with adverbs that are licensed still higher in the clausal structure, within the I-domain. Those adverbs comprise among others root (\approx deontic) modality adverbs, as opposed to adverbs licensed still higher within the C-domain (incl. epistemic modality, evidential, etc.; cf. next section).

- (25) Fritz *necessarily*_{ROOT} digs girls since he's a man... – What!?! Fritz *necessarily*_{ROOT} dig girls!?! Why!?! As I see it, he might well be into men...

In addition, ARIs are compatible with temporal adverb(ial)s, but only with *non-deictic* ones, deictic ones being prohibited by the nonfiniteness characteristic of ARIs (to which I will return in section 3).

- (26) Fritz be a theoretical syntactician *some day*_[-deictic]/**tomorrow*_[+deictic]!?! You got it completely wrong! He'll be a syntactic theoretician!

On the assumption, then, that temporal adverbials are generally licensed by the I-head T, which is also where tense values are introduced, it is safe to conceive of the ARI as projecting at least to IP²² (as given in (24)).

2.2.5 ARIs as CPs

The common diagnostics to determine the presence/complexity of the C-domain of clauses are (i) modification by speaker-oriented adverbs (cf. above w.r.t. IP and ν P); (ii) operations targeting the left periphery (topicalisation, etc.). To cut things short, for the majority of

structures: for example, a 'defective' structure, i.e. a structure lacking e.g. the highest C-layer, should be incompatible with high, speaker-oriented adverbs such as *fortunately* (= 'the speaker of an utterance finds fortunate that p').

²² It might be worth pointing out that while the fine structure of I is approximately Mod > T > Asp, it would be premature to rule out the incompatibility of English ARIs with modal auxiliaries (**Fritz can/must/... be a theoretical syntactician some day!?!*) as depending on the putative absence of the head Mod: It is a general characteristic of English modal auxiliaries that they do not have an infinitival form in their paradigm (**He seems to can eat 12 eggs*). However, this is unlikely to be a semantic problem, modal periphrases being grammatical (*He seems to be able to eat 12 eggs*). Moreover, languages other than English do allow for infinitival modals (e.g. German: *Er scheint 12 Eier essen zu können*).

languages examined (incl. English), there is no indication of a left periphery (except for a group of Western Romance languages; cf. (20)), hence no reason to assume a C-domain:

- (27) Him (**unfortunately*) prepare a paper!?! (cf. He's *unfortunately* preparing a paper.)
 (28) *[A paper]_i, him prepare *t_i*!?! (cf. A paper, he's preparing (but no thesis).)

One feature of the ARI, which seems to have been neglected in the syntactic literature, is that it exhibits a rather systematic behaviour when it comes to the mobility of its *vP*: the *vP* may undergo what looks like topicalisation, leaving behind the Subject (the TopP here is without any particular theoretical commitment, generic):

- (29) a. Prepare a paper, him!?!
 b. [_{TopP} [_{vP} Prepare a paper]_i Top° [_{IP} him I° *t_i*]] . – *vP*-TOPICALISATION

Rather straightforwardly, this raises the question whether the derived front position of the predicate in (29) is a syntactic fronting operation at all, or really just an instance of conjunct reversibility, supporting the analysis of ARIs as biphrasal coordination structures (*Prepare a paper!?! Him!?!*; cf. 2.2.2). While one might be inclined to intuitively take the latter view, German ARIs, which may (optionally?) occur with an overt coordinator *und* 'and' linking Subject and predicate (also available to English, though to a limited degree/non-productively; cf. 2008:65ff.), suggest otherwise: In coordinative ARIs, *vP*-fronting is barred, and so is &P-fronting (fronting of the phrase headed by the coordinator):

- (30) a. Der ein Paper schreiben!?!
 that.one a paper write!?!
 'Him write a paper!?!'
 b. [_{vP} Ein Paper schreiben]_i, der *t_i*!?!
 (31) a. Der *und* ein Paper schreiben!?! – COORDINATIVE ARI
 that.one and a paper write!?!
 'Him (and) write a paper!?!'
 b. *[_{vP} Ein Paper schreiben]_i, der *und t_i*!?!
 c. * [&P *Und* ein Paper schreiben]_i, der *t_i*!?!

It is all but clear what kind of functional element the coordinator in ARIs really is: It is no Boolean coordinator (cf. Potts & Roeper 2006:198), neither of the symmetrical kind, denoting intersection (e.g. [_N John] *and* [_N Paul]...), nor of the asymmetrical kind, denoting logical spatio-temporal or modal relations (e.g. *He tripped, and fell*), both requiring identical categorial and semantic types of the conjuncts (where equi-categoriality is sometimes obstructed by ellipsis). Rather, the coordinator in ARIs appears to be a *predicator*, akin to the *as* cooccurring with the verb *regard* (*I regard* [_{PredP} him [_{Pred°} as] [*an idiot*]]). Leaving the discussion of this aspect of the ARI to future investigation, what is relevant is that ARIs do seem to license movement operations, as indicated negatively by intervening restrictions (coordinator).

A final question that remains to be addressed is the target of the movement operation given that in general (at least some) nonfinite structures are taken to be without a C-domain (i.e. truncated to IP), which, however, is where topics are assumed to be licensed, according to varying theoretical implementations (adjunction theories excluded, all approaches syntactic in character): (i) classically, in SpecCP; (ii) in the SpecTopP/FocP of an articulated C-domain: Force > Top > Foc > Fin (cf. Rizzi 1997, and others); (iii) in the Specs of the *non-*

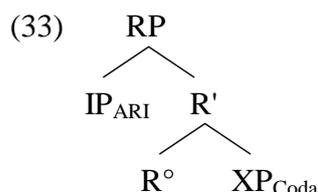
information-structural heads of a Rizgian C-system (i.e. in SpecForceP and/or SpecFinP; cf. López 2009); (iv) ‘medial’ topic positions (SpecIP), not in the C-domain, as e.g. proposed by Frey (2004) for German. Although interesting (in particular w.r.t. to a group of Western Romance languages, which *do* allow for left-peripheral operations in ARIs, though restrictively; cf. (30) and Wenger 2008:52), for reasons of space I cannot pursue investigations into the information-structural (IS) syntax of ARIs. Nonetheless, a theory of the syntax of finiteness (as to be rudimentarily sketched in section 3) should shed light on these matters as well since it is exactly here, around the C–I interface, where the derivation of both left-peripheral IS-operations and finiteness is computed.

2.2.6 A short note on the transsentential character of ARIs

It should be pointed out that not only the internal structure of ARIs is of controversial interest, but also the external, i.e. transsentential, context, in which they occur within discourse. As already laid out in the introductory section, ARIs are likely to be accompanied by a follow-up expression – a *Coda* –, which spells out (= confirms) their incredulitive force lexically:

(32) What!/? Him prepare a paper!/? *No way, dude!/Never!/I can't believe it!/...*

This feature of the ARI raises the question of what the linguistic nature of this dependency is – discursive or syntactic? While the former solution is relatively plausible (as e.g. assumed by Lambrecht 1990), the latter one, as it is maintained by Etxepare & Grohmann (2000 *et seq.*), is much less obvious. They argue for a quantificational tripartite *syntactic* representation of ARIs (ultimately following Heim 1982, Diesing 1992), headed by the quantificational operator R (as proposed by Zanuttini & Portner 2003 for exclamative clauses), contrasting an abnormal/unexpected event expressed by the ARI with a presupposed set of normal/expected situations (= the function of *widening*). R is taken to take as its restriction its external argument (the ARI), mapping it into its nuclear scope (the Coda) (cf. Wenger 2008:55ff. for a more detailed exposition and discussion).



As empirical evidence, Etxepare and Grohmann rely on connectivity effects that seem to hold between ARI and Coda. One such is the licensing of Negative Polarity Items (NPIs) like *any-X* (in the non-generic reading). NPIs must be licensed by ‘emphatic’ elements (negative, interrogative,...) c-commanding them:

- (34) a. I *don't*_{NEG} want to have *any*_{NPI}/*some more coffee.
 b. I want to have **any*_{NPI}/some more coffee.

As it turns out, NPIs contained within ARIs seem to need a (negative) licensing expression in their Coda (example taken from Etxepare & Grohmann 2005:134):

(35) Me buy *anything*_{NPI} in that shop!/? *Never!/No way!/*Of course!/*Okay!*

However, this piece of evidence faces several problems, one set concerning the grammatical nature of the Coda itself, the other the explanatory base for the connectivity effects. First, it is not evident that the Coda is an *obligatory* follow-up to ARIs at all since ARIs may well be uttered on their own, maybe accompanied by an *extralinguistic* (facial) expression of disbelief – which, however, does not constitute a *narrow syntactic* (grammatical) property. Besides that, the Coda expression itself is positionally rather variable (it can well occur preceding an ARI: *No way! Him read books!?*), and categorially-structurally a rather heterogeneous set (QP, DP, CP, elliptical expressions, etc.) – characteristics that in my view favour a discourse-based explanation of the connectivity, which is more loose than syntactic connectivity. In addition, as for the licensing of NPIs, a more straightforward account is available: The interrogative dimension of ARIs (ARIs clearly involve a force type consisting of at least an exclamative and an *interrogative* value, hence the ‘!?’). Interrogativity, however represented syntactically, licenses NPIs, as shown in the following example:

- (36) a. Would Steven like *any* more coffee? – QUESTION
 b. Steven like *any* more coffee!?! – ARI

In what follows, I will treat the ARI as a mono-clausal structure, leaving the discussion of its higher order structure (syntactic vs. discursive) to future research.

3 Finiteness

In this section, I will sketch a syntax of finiteness, which essentially boils down to an examination of the syntax-internal C–Infl interface. I believe the key to understanding the syntactic dimension of finiteness lies in the syntax of tense (more abstractly, referential anchoring), both morphologically and semantically speaking, within syntactic domains. Before laying out a syntactic account of finiteness, specifically w.r.t. the *nonfiniteness* in ARIs, I would first like to sketch the ontology of finiteness within the generative paradigm.

Traditionally, finiteness itself has been a theory-peripheral, often merely descriptive, notion associated with (at least) four phenomena: (i) Tense (TNS); (ii) NOM Case; (iii) Agr_S/SVA; and (iv), syntactic dependence. While initially (i.e. at least since the grammarians of the antiquity) the focus was on the morphological dimension of the verb (w.r.t. tense and ϕ -agreement, particularly PERSON), it has shifted to a broader, clausal context in modern theories of grammar: finite *clauses* license NOM Subjects; finite *clauses* can be syntactically independent (i.e. root clauses), nonfinite *clauses* are dependents, and do not generally license Subjects, etc.. Within generative theory the features (i)-(iii) have been described in terms of implicational licensing correlations of the following kind, at least since Chomsky (1981), which is how the notion of finiteness found its way into generative syntax, though initially as a rather *descriptive* label [+Fin]²³:

- (37) a. I[+Fin]: [+Tns] → [+Agr] → [NOM]
 b. I[-Fin]: [-Tns] → [-Agr] → ([Ø/NULL]²⁴)

²³ Although occasional occurrences in several GBT-era works suggest otherwise, e.g. FP within Pollock's (1989:372, 394) split-IP hypothesis, the vagueness and subsequent re-disappearance confirms the notion's (formerly) descriptive character.

²⁴ Default Case aside (which is ACC in English), English has two other nonfinite Subject Cases not licensed by I: ACC in so-called ECM-infinitivals (classically, i.e. AcI, e.g. *I want him to leave*), where ACC is licensed by the matrix verb, and GEN, which in nominal gerunds (*His visualising of my ideas is very creative*), is licensed DP-internally.

A constant assumption within the formulation of these correlation has always been that structural Case – the last link in the chain – is contingent on other phenomena, alternately on TNS or Agr. In current phase-based minimalism à la Chomsky (2000 et seq.), the licensing correlation is derivationally instantiated in T (= I)²⁵, which contains [TNS] and [φ] (φ is the former Agr, and consists of the feature bundle [PERSON, NUMBER, GENDER]), NOM being considered a post-syntactic PF-reflex licensed by a complete φ -feature on T. Accordingly, nonfinite contexts are considered to be headed by a φ -defective T_{def} (i.e. lacking [φ] completely, or only the sub-feature [NUMBER]), which does not license Case (default Case being different; cf. above). While the licensing chain as formulated in (37) does not reflect minimalist syntax, where there is no interdependency between [TNS] and [φ], it is nonetheless assumed to be φ -completeness/defectiveness that differentiates nonfinite from finite domains – hence, the capacity of agreement is equated with finiteness (according to option (iii) above).

Interestingly, at first sight, neither SVA, nor any of the other four options listed above prove sufficient as candidates for finiteness, as (cross-linguistically) there are nonfinite structures that *do* show SVA (contra the conception just sketched; cf. (19)), that can occur as independent root structures (e.g. the ARI), that can license NOM Subjects (e.g. Hungarian; cf. Szabolcsi 2005:619), and that can manifest overt (= morphological) Tense, as the following example from Classic Latin shows (from Cecchetto & Renato 2001:15):

- (38) Vellem hoc scripisse
 would-like-1SG that write-PST-INF
 ‘I would like to have written that.’

On the plausible assumptions that NOM Case is a secondary property, and that the dependence of nonfinite structures can be overridden rather easily (with syntax-external help, ‘pragmatic-illocutionary enrichment’), I would like to sketch a schematic derivation of ARIs with regard to nonfiniteness that relies on properties of tense rather than agreement^{26, 27}.

On closer scrutiny, examples of so-called tensed infinitives like the Latin one in (38) turn out not to involve fully referential, i.e. *deictic*, tense, but rather dependent *anaphoric* tense, which cannot referentially anchor to the speech event (the NOW of the *origo*), but derives its temporal interpretation contextually, either by entering into a dependency (binding, valuation, checking, etc.) with a higher matrix predicate, or – in case of root infinitives – by appealing to non-syntactic means. For the above example from Latin this means that the Tense morpheme *-is(s)-* of the infinitive *scripisse* is, strictly speaking, not a real PAST morpheme (indicated as PST in the gloss above), ordering a structure corresponding to an eventuality (or to an extended situation/interval), including an indication of event time (ET) and Reference time (RT), anterior to the Speech Time (ST) (cf. Reichenbach 1947 for these notions) (i.e. RT < ST), but – crucially – anterior to the ET/RT of the matrix predicate *velle* (i.e. anaphorically: RT_{scribere} < ET_{velle}), which itself is ordered contemporaneously with ST (PRESENT: ST, RT, ET_{velle}).

Arguably, the anaphoric nature of the temporal reference of the inflected Latin infinitive is just what would be expected for non-inflected counterparts in e.g. English. While this has been a major topic of controversy ever since Stowell (1982), according to whom some

²⁵ For now, I abstract away from the innovations introduced by the *feature inheritance* theory in Chomsky (2007, 2008).

²⁶ I am not discussing agreeing infinitives as those found in Brazilian Portuguese (cf. (19)).

²⁷ To my knowledge, yet other candidates for the identification of finiteness have been verbal Mood (e.g. Aygen 2002), assertability (e.g. Klein 2006), or none at all (or, in other words, a composite notion), as in Landau’s (2004) scale of finiteness. Particularly interesting is the (not new) idea of categorising (non)finiteness as a type of verbal Mood, nonfinite verb forms being in *complementary* distribution with other verbal Moods such as the Indicative, or the Subjunctive. For reasons of space, though, I will not discuss this option here.

linguists have maintained that (certain) control infinitives (e.g. *I_i want PRO_i to buy bread*) have a future-irrealis tense semantics that is also syntactically (but not morphologically) represented as a value on T (sometimes as an abstract distinction [\pm TNS]) instead of specific values like [TNS:PST]), many others view infinitivals as transparent domains whose tense is determined by (a higher) context, essentially the matrix verb, anaphorically (cf. e.g. Hornstein 1990:146ff.). Based on Neo-Reichenbachian approaches to the syntax of tense, the three time points/intervals are represented in the tripartite backbone of the clause, where finiteness is a function of the referential *anchoring* of the extended situation (i.e. IP \supset RT–ET) to C (\supset ST) (cf. Enç 1987; Bianchi 2003):

$$(39) [_{CP} C^{\circ}_{[ST]} [_{IP} I_{[RT]} [_{vP} v^{\circ}_{[ET]}]]]$$

Just like some of the works just mentioned, I would like to capitalise on the notion of *defectiveness* (a privative approach) – but rather as phrase-structural underspecification (i.e. scalar truncation²⁸) than as featural underspecification (e.g. a missing ϕ -probe on T, or a lacking Tense-feature). The dichotomy between phrase-structural and featural underspecification of structures mirrors the tension between mainstream (cf. e.g. Chomsky 2000) and Cartographic generative theories of phrase-structure (cf. e.g. Rizzi 1997), the former assuming the clausal skeleton to consist of macro-categories (C > T > v > V), the latter of fine-grained sequences of varying complexity (e.g. C = Force > Top > Foc > Fin > IP; cf. Rizzi 1997)²⁹. On the truncation view, then, nonfiniteness results from the *absence* of structure, specifically, C (\supset ST): the IP remains unanchored within its own domain, either linking up to a higher clause, or to a discourse context, as in the case of ARIs.

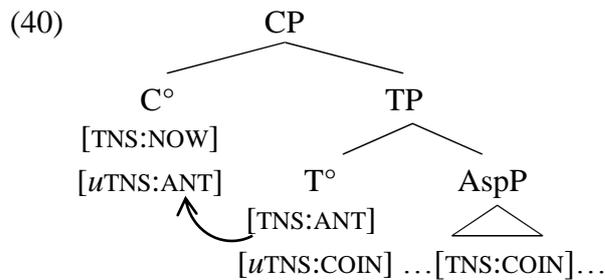
Going back to the licensing of agreement, Tense, and Case, then, the Neo-Reichenbachian syntax of tense just outlined in a simplistic fashion might be integrated with current reasoning as follows: On the assumption that it is C (or Fin/C^{min} = the lowest head of a split C-domain) that licenses [NOM] and [*u* ϕ :], and not T (I) (cf. the similar idea of C–T feature inheritance Chomsky 2007, 2008), the absence of SVA and NOM follows if an infinitival projects only to TP (or I^{max}), to the very exclusion of C[*u* ϕ : , NOM]. Subject raising can still be assured if one conceives of the [EPP] as a leftness condition (i.e. Spec condition) on domains (which may be overridden subsequently), having a nominal raise to the left edge of the I-domain under Attract Closest (cf. Chomsky 1995:297).

Finally, what remains to be sketched in more detail are the tense properties of infinitival structures. A more recent trend is the assumption that (mono-clausal) syntactic structures involve more than just one tense category, namely one that is lower in the clausal structure, topping off the vP, and a higher one, the classic T(P) (cf. e.g. Pesetsky & Torrego 2004). In the present approach, the higher Tense (proper, i.e. referential tense) is reanalysed as C/Fin (or as contained therein), while the lower tense is identified as the classic T, but redefined as (containing) a time variable [TNS:val] (on possible values cf. below) that denotes the temporal orientation of an extended event, which may be interacting with the event argument on v (ET) as well as aspectual categories to produce distinctions of viewpoint and inner aspect. The temporal dependency between C and T may be construed in terms of Agree-based feature

²⁸ Given a functional sequence $a > b > c$ (an fseq, i.e. a fixed hierarchy of functional projections; cf. Starke 2001), the lack of b entails the lack of a , i.e. only *scalar* truncation of the fseq is permitted. Allowing for *selective* truncation, e.g. $?a > c$, is not restrictive enough (indeed, not restrictive at all) in capturing phrase-structurally a configurational property of a syntactic structure.

²⁹ As Chomsky (2001:43, fn. 8) himself notes, this tension might only be apparent, explicitly stating that macro-categories may only be simplifying placeholder for finer structures as advocated by Cartography.

valuation: Besides [$\mu\varphi$:] and [NOM], C contains a (default?³⁰) time value denoting the NOW (referential index), say [TNS:NOW], while T carries a feature denoting the relative temporal orientation of the extended event it heads (i.e. relative tense), which can take one of three values [ANT(ERIODITY)], [POST(ERIODITY)], or [COIN(CIDENCE)]³¹. Furthermore, if the anaphoric relation is to be conceived of in terms of valuation (instead of, say, binding), T also carries an unvalued, uninterpretable ‘linking’ feature³². Overall, this treatment of Tense yields a decompositional-derivational syntactic approach to Tense (e.g. simple past = C[TNS:NOW] > T[TNS:ANT] > Asp[TNS:COIN]).



C must carry an active probe [μ TNS:], which searches for a matching value [TNS:val], in order for Agree(C,T) to be established. Thus, in the present example, C[μ TNS:] probes for and finds T[TNS:ANT], which heads an extended situation typed ‘anterior’ (temporal orientation) (and, irrelevant here, ‘perfective’, or simple, aspect). At the syntax–morphology interface, an according Tense morpheme – here, in English, {-ED} – is inserted into [μ TNS:ANT], with affix hopping (cf. Chomsky 1957 [2002]) producing the surface order (low, i.e. ν , in English)³³.

What about nonfinite structures? Evidently, with C, and thus the ‘proper’ Tense feature [μ TNS] as well as the referential anchor [TNS:NOW], being absent, an ARI is correctly predicted not to display deictic Tense, but to still be capable of producing distinctions of relative tense (temporal orientation). Indeed, if languages possess free or bound morphology that is able to lexicalise a nonfinite (i.e. C-less) T, this is possible under the proper contextual circumstances (contrary to what is claimed, e.g. in Etxepare & Grohmann 2007). As for anteriority, this is typical of past perfect contexts:

- (41) A: When I came home yesterday, Axel had already left... – B: What!/? *Him have left (already)!?* Not true! I spotted him behind the sofa when *I* came home!

³⁰ It is not clear to me at this point what the value of this feature would be in embedded contexts, where there is an indication of C, but the embedded tense is *dependent* (e.g. Subjunctive complements).

³¹ This tripartition can be derived from a feature hierarchy of temporal coincidence (cf. Ritter & Wiltschko 2005) composed of [\pm coincidence] and [\pm anteriority/posteriority] (or similarly, e.g. privatively).

³² Den Dikken’s (2006) concept of *linker* might apply to T (as pointed out by Boeckx 2008:161). The role of T (or other I-related heads) as a carrier of an extended situation variable is addressed in Butler’s (2004) quantificational theory of phrase structure (also cf. Drubig 2007), and within Brandt’s (2006) treatment of cipient structures, where a projection tP (‘little t’) closes off the ν P.

The reduced derivational relevancy of T has also become more explicit in Chomsky’s (2007, 2008) *feature inheritance* framework, where T acquires practically all the properties it had been previously associated with (SVA, etc.) from C derivationally, by inheritance. Pesetsky & Torrego (2001, 2004, 2007) is similar to the present approach, in that the C–T link is construed as a temporal Agree-dependency between C[μ TNS] and a goal in its scope bearing [TNS] (i.e. at least T or DP).

³³ Recall that the highest [μ TNS] feature would be (contained in) the finiteness category Fin in a more fine-grained perspective on phrase structure, and would thus still be dominated by (at least) another functional projection, viz. Force.

In nonfinite contexts, the perfect auxiliary, which is commonly associated with tempo-aspectual concepts like ‘present relevance’ or ‘current orientation’ (an eventuality anterior to ST extends into the NOW), is reduced to an expression of anteriority, as predicted by the lack of anchoring³⁴. The fact that ARIs – like most nonfinities – are interpreted as irrealis is likely to be due to extra-syntactic default interpretation, assigning an unactualised (= irrealis) semantics to unanchored situations.

4 Conclusion and outlook

In a nutshell: A careful survey of the linguistic properties of ARIs has shown two things: (i) that it can be subjected to syntactic analysis, contrary to arguments that see it as a ‘defective’ construction consisting of two loosely linked phrases; and (ii) that ARIs have an abstract syntactic structure that is more complex than meets the eye (vP/SC), but just as complex to match the requirements imposed by nonfiniteness (TP, but not CP).

An addendum: The analysis of ARIs as TPs (syntactically) and extended situations (semantically) still lacks one component of meaning – pragmatics, especially, illocutionary meaning. Uncontroversially, ARIs possess a kind of force (incredulitive), which is rather specialised and cannot be easily overridden (as is the case e.g. with declaratives as questions). However, provided that illocutionary force is somehow represented in syntax (as sentence mood, sentential force, or, put more simply, as a ‘clause-typing’ operator), ARIs (and reduced nonfinite structures more generally) prove problematic given that the locus of force is generally assumed to be very high in the clausal spine, in C (or Force), as suggested by COMPs indicating clause-type (*that* → declarative, *if* → interrogative). W.r.t. ARIs then, I can only speculate that their illocutionary force is derived compositionally extra-syntactically, rather than being represented structurally, e.g. by operators. In any case, the role of illocutionary meaning in nonfinite root structures, as well as the effect of prosody on illocutionary meaning need to be taken into account to be able to tackle these questions – a topic for another paper.

References

- Abney, Steven P. (1987). *The English Noun Phrase in Its Sentential Aspect*. Ph.D. thesis, MIT.
- Avrutin, Sergey (1999). *Development of the Syntax-Discourse Interface*. Dordrecht: Kluwer.
- Aygen, Nigar Gulsat (2002). *Finiteness, Case and Clausal Architecture*. Ph.D. thesis, Graduate School of Arts and Sciences, Harvard University.
- Baker, Mark C. (1988). *Incorporation: A Theory of Grammatical Function Changing*. Chicago, IL: University of Chicago Press.
- Belletti, Adriana (1990). *Generalized Verb Movement: Aspects of Verb Syntax*. Turin: Rosenberg & Sellier.
- Bianchi, Valentina (2003): "On finiteness as logophoric anchoring". In: Jacqueline Guéron & Liliane Tasmovski (2003). *Temps et Points de Vue/Tense and Point of View*. Nanterre: Université Paris X, 213-246.
- Boeckx, Cedric (2008). *Bare Syntax*. New York, NY: OUP.
- Bošković, Željko (1997). *The Syntax of Nonfinite Complementation: An Economy Approach*. Cambridge, MA: MIT Press.

³⁴ Also cf. the discussion around the Latin example (38) and p. 17. Latin realises the anteriority realised by *have* synthetically, by an inflectional affix.

- Brandt, Patrick (2006): "Receiving and Perceiving Datives (Cipients): A View from German". In: Daniel Hole et al. (2006). *Datives and Other Cases: Between Argument Structure and Event Structure*. Amsterdam, Netherlands: Benjamins, 103-139.
- Bücker, Jörg (2007) "'Du und tolerant?' – Zur Syntax, Semantik und Pragmatik deutscher 'Incredulity Response Constructions' (IRCs)." *'Grammatik in der Interaktion' (GIDI) Working Papers 5*.
- Bücker, Jörg (2008) "Polythetic Classes and 'Constructional Chains': 'Incredulity Response Constructions' (IRCs) and Related Constructions from a Cross-Linguistic and Diachronic Point of View." *'Grammatik in der Interaktion' (GIDI) Working Papers 13*.
- Büring, Daniel (2005). *Binding Theory*. New York, NY: CUP.
- Butler, Jonny (2004). *Phase structure, Phrase structure, and Quantification*. Ph.D. thesis, Department of Language & Linguistic Science, The University of York.
- Cardinaletti, Anna & Michal Starke (1999): "The typology of structural deficiency: A case study of the three classes of pronouns". In: Henk van Riemsdijk et al. (1999). *Clitics in the Languages of Europe*. Berlin: Mouton de Gruyter, 145-233.
- Carnie, Andrew (2008). *Constituent Structure*. New York, NY: OUP.
- Chomsky, Noam (1957 [2002]). *Syntactic Structures*. The Hague: Mouton.
- Chomsky, Noam (1981). *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris.
- Chomsky, Noam (1993): "A minimalist program for linguistic theory". In: Kenneth Hale & Samuel Jay Keyser (1993). *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*. Cambridge, MA: MIT Press, 1-52.
- Chomsky, Noam (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam (2000): "Minimalist inquiries: The framework". In: Roger Martin et al. (2000). *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*. Cambridge, MA: MIT Press, 89-156.
- Chomsky, Noam (2001): "Derivation by phase". In: Michael Kenstowicz et al. (2001). *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press, 1-52.
- Chomsky, Noam (2007): "Approaching UG from below". In: Uli Sauerland & Hans-Martin Gärtner (2007). *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics*. Berlin, Germany: Mouton de Gruyter, 1-29.
- Chomsky, Noam (2008): "On phases". In: Robert Freidin et al. (2008). *Foundational Issues in Linguistic Theory*. Cambridge, MA: MIT, 133-166.
- Cinque, Guglielmo (1999). *Adverbs and Functional Heads: A Cross-linguistic Perspective*. New York, NY: OUP.
- Davies, William D. & Stanley Dubinsky (2004). *The Grammar of Raising and Control*. Malden, MA, et al.: Blackwell Publishing.
- den Dikken, Marcel (2006). *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*. Cambridge, MA: MIT Press.
- Diesing, Molly (1992). *Indefinites*. Cambridge, MA: MIT Press.
- Drubig, H. Bernhard (2007): "Phases and the typology of focus constructions". In: Kerstin Schwabe & Susanne Winkler (2007). *On Information Structure, Meaning and Form: Generalizations across Languages*. Amsterdam, Netherlands: Benjamins, 33-66.
- Enç, Mürvet (1987): "Anchoring Conditions for Tense". *Linguistic Inquiry* 18:4, 633-659.
- Etxepare, Ricardo & Kleanthes K. Grohmann (2002): "Towards a syntax of Adult Root Infinitives". In: Teresa Satterfield et al. (2002). *Current Issues in Romance Languages*. Amsterdam, Netherlands: Benjamins, 65-79.
- Etxepare, Ricardo & Kleanthes K. Grohmann (2005): "Towards a grammar of Adult Root Infinitives". In: John Alderete et al. (2005). *Proceedings of the 24th West Coast*

- Conference on Formal Linguistics*. Somerville, MA, USA: Cascadilla Proceedings Project, 129-137.
- Etxepare, Ricardo & Kleanthes K. Grohmann (2007): "Temporal and aspectual variation in Adult Root Infinitives". In: Louis de Saussure et al. (2007). *Recent Advances in the Syntax and Semantics of Tense, Aspect, and Modality*. Berlin: Mouton de Gruyter, 147-168.
- Fillmore, Charles J., Paul Kay et al. (1988): "Regularity and idiomatity in grammatical constructions: The case of *Let Alone*". *Language: Journal of the Linguistic Society of America* 64:3, 501-538.
- Frey, Werner (2004): "A medial topic position for German". *Linguistische Berichte* 198, 153-190.
- George, Leland M. & Jaklin Kornfilt (1981): "Finiteness and boundedness in Turkish". In: Frank Heny (1981). *Binding and Filtering*. Cambridge: MIT Press, 105-127.
- Grohmann, Kleanthes K. & Ricardo Etxepare (2003): "Root infinitives: A comparative view". *Probus: International Journal of Latin and Romance Linguistics* 15:2, 201-236.
- Heim, Irene (1982). *The Semantics of Definite and Indefinite Noun Phrases*. thesis, Department of Linguistics, University of Massachusetts Amherst.
- Hoekstra, Teun & Nina Hyams (1998): "Aspects of root infinitives". *Lingua: International Review of General Linguistics* 106:1-4, 81-112.
- Hornstein, Norbert (1990). *As Time Goes By: Tense and Universal Grammar*. Cambridge: MIT Press.
- Jackendoff, Ray (1972). *Semantic Interpretation in Generative Grammar*. Cambridge, MA: MIT Press.
- Katz, Jerrold J. & Jerry A. Fodor (1963): "The structure of a semantic theory". *Language: Journal of the Linguistic Society of America* 39:2, 170-210.
- Klein, Wolfgang (2006): "On finiteness". In: Veerle van Geenhoven (2006). *Semantics in Acquisition*. Dordrecht: Springer, 245-272.
- Kratzer, Angelika (1996): "Severing the external argument from its verb". In: Johan Rooryck & Laurie Zaring (1996). *Phrase Structure and the Lexicon*. Dordrecht: Kluwer, 109-137.
- Lambrecht, Knud (1990): "'What, Me Worry?': Mad Magazine Sentences revisited". In: Kira Hall et al. (1990). *Proceedings of the Sixteenth Annual Meeting of the Berkeley Linguistics Society*. Berkeley: Berkeley Linguistics Society, 215-228.
- Landau, Idan (2004): "The Scale of Finiteness and the Calculus of Control". *Natural Language & Linguistic Theory* 22:4, 811-877.
- López, Luis (2009). *A Derivational Syntax for Information Structure*. New York, NY: OUP.
- Nikolaeva, Irina, Ed. (2007). *Finiteness: Theoretical and Empirical Foundations*. New York, NY: OUP.
- Pesetsky, David & Esther Torrego (2001): "T-to-C movement: Causes and consequences". In: Michael Kenstowicz et al. (2001). *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press, 355-426.
- Pesetsky, David & Esther Torrego (2004): "Tense, Case, and the nature of syntactic categories". In: Jacqueline Guéron & Jacqueline Lecarme (2004). *The Syntax of Time*. Cambridge, MA: MIT, 495-537.
- Pesetsky, David & Esther Torrego (2007): "The syntax of valuation and the interpretability of features". In: Simin Karimi et al. (2007). *Phrasal and Clausal Architecture: Syntactic Derivation and Interpretation*. Amsterdam, Netherlands: Benjamins, 262-294.
- Pollock, Jean-Yves (1989): "Verb movement, Universal Grammar, and the structure of IP". *Linguistic Inquiry* 20:3, 365-424.

- Potts, Christopher & Tom Roeper (2006): "The narrowing acquisition path: From Expressive Small Clauses to declaratives". In: Ljiljana Progovac et al. (2006). *The Syntax of Nonsententials: Multidisciplinary Perspectives*. Amsterdam, Netherlands: Benjamins, 183-201.
- Progovac, Ljiljana (2006): "The syntax of nonsententials: Small Clauses and phrases at the root". In: Ljiljana Progovac et al. (2006). *The Syntax of Nonsententials: Multidisciplinary Perspectives*. Amsterdam, Netherlands: Benjamins, 33-71.
- Radford, Andrew (1990). *Syntactic Theory and the Acquisition of English Syntax: The Nature of Early Child Grammars of English*. Oxford: Blackwell.
- Radford, Andrew (2009). *An Introduction to English Sentence Structure*. Cambridge: CUP.
- Reichenbach, Hans (1947). *Elements of Symbolic Logic*. New York, NY: McMillan.
- Ritter, Elizabeth & Martina Wiltschko (2005): "Anchoring events to utterances without tense". In: John Alderete et al. (2005). *Proceedings of the 24th West Coast Conference on Formal Linguistics*. Somerville, MA, USA: Cascadilla Proceedings Project, 343-351.
- Rizzi, Luigi (1993): "Some notes on linguistic theory and language development: The case of root infinitives". *Language Acquisition: A Journal of Developmental Linguistics* 3:4, 371-393.
- Rizzi, Luigi (1997): "The fine structure of the Left Periphery". In: Liliane Haegeman (1997). *Elements of Grammar: Handbook of Generative Syntax*. Dordrecht: Kluwer, 281-337.
- Rizzi, Luigi & Ur Shlonsky (2006): "Satisfying the Subject Criterion by a non-Subject: English Locative Inversion and Heavy NP-Shift". In: Mara Frascarelli (2006). *Phases of Interpretation*. Berlin, Germany: Mouton de Gruyter, 341-361.
- Rizzi, Luigi & Ur Shlonsky (2007): "Strategies of Subject extraction". In: Uli Sauerland & Hans-Martin Gärtner (2007). *Interfaces + Recursion = Language? Chomsky's Minimalism and the View from Syntax-Semantics*. Berlin, Germany: Mouton de Gruyter, 115-160.
- Schütze, Carson Theodore Robert (1997). *INFL in Child and Adult Language: Agreement, Case and Licensing*, Massachusetts Institute of Technology.
- Starke, Michal (2001). *Move Dissolves into Merge: A Theory of Locality*. Ph.D. thesis, University of Geneva,
- Stowell, Tim (1982): "The Tense of Infinitives". *Linguistic Inquiry* 13:3, 561-570.
- Vergnaud, Jean-Roger (2008): "Letter to Noam Chomsky and Howard Lasnik on 'Filters and Control,' April 17, 1977". In: Robert Freidin et al. (2008). *Foundational Issues in Linguistic Theory*. Cambridge, MA: MIT, 3-15.
- Visser, Frederikus Theodorus (1963). *An Historical Syntax of the English Language*. Leiden: Brill Academic Publishers.
- Wenger, Neven (2008). "Me a sentence type?!": *English Adult Root Infinitives Reconsidered in a Minimalist Syntax Framework*. M.A. thesis, Anglistisches Seminar, Heidelberg University.
- Wenger, Neven (2009). *The Syntax of Finiteness*. Frankfurt a. M.
- Williams, Edwin S. (1975): "Small Clauses in English". *Syntax and Semantics* 4, 249-273.
- Zanuttini, Raffaella & Paul Portner (2003): "Exclamative Clauses: At the Syntax-Semantics Interface". *Language: Journal of the Linguistic Society of America* 79:1, 39-81.

Neven Wenger
 University of Frankfurt
 GK 'Satzarten'
 Varrentrappstr. 40-42
 60486 Frankfurt am Main

neven.wenger@gmx.net