

# GRAMMATICALIZATION AS PATTERN FORMATION: ROMANIAN AUXILIARIES FROM A DIACHRONIC ROMANCE PERSPECTIVE<sup>1</sup>

ALEXANDRU NICOLAE<sup>2</sup>

**Abstract.** By studying the grammaticalization of Romanian auxiliaries from a diachronic Romanian and a comparative Romance perspective, this paper argues that the output of grammaticalization is a predictable pattern in a given language, i.e. a language-specific parametric choice. Specifically, in the passage from old to modern Romanian we observe that a number of emergent periphrastic structures (innovations in contrast to Latin) died out, against the well-known transition from syntheticity to analyticity in the development of the Romance languages (i.e. the profusion of auxiliary structures in this particular situation). In order to account for what appears to be a diachronic paradox, we show that, under a rich cartographic structure of the IP, Romanian auxiliaries systematically grammaticalize as exponents of the category mood; the auxiliaries of the now-defunct periphrases have a richer feature matrix (and this accounts for their demise). The MoodP is also the target of synthetic (finite) verb movement, hence Romanian is, (micro)parametrically, a mood-oriented language, a hypothesis which accounts for the particular diachrony of periphrastic constructions in this language, as well as other properties.

**Keywords:** grammaticalization, auxiliary verbs, verb movement, mood, pattern formation, analyticity, Romanian, Romance.

## 1. RESEARCH QUESTIONS

**Claims.** Starting from Giacalone Ramat’s observation that “members of the category ‘auxiliary’ exhibit differences in their degree of grammaticalization and are located at different points along the ‘Verb-to-TAM’ chain” (Giacalone Ramat 2000: 125 with reference to It. *venire* ‘come’ and *andare* ‘go’; highlight ours), this paper focuses on Romanian T(ense)A(spect)M(ood) auxiliaries and brings together formal and functional considerations in support of the following main claims:

(i) the syntactic position of auxiliary grammaticalization is a particular structural position (associated with specific grammatical-semantic interpretations) in each given

---

<sup>1</sup> This work was supported by the postdoctoral grant PN III-P1-1.1-PD-2016-0870, CNCS – UEFISCDI: “Discontinuous Structures in the Diachronic Syntax of Romanian: Some Unfinished Business”, principal investigator: Alexandru Nicolae. Some of the ideas presented here have been also addressed in Dragomirescu, Nicolae and Zafiu (2021), however with different arguments.

<sup>2</sup> “Iorgu Iordan – Al. Rosetti” Institute of Linguistics (Romanian Academy); Faculty of Letters, University of Bucharest. E-mail: alexandru.nicolae@unibuc.ro.

language (viz. a *language-specific* property), a proposal that opens up the possibility of parameterization;

(ii) in the situation of Romanian, this particular structural position is mood: auxiliaries are exponents of mood – hence auxiliary grammaticalization targets the IP-position Mood (under a rich, cartographic IP structure);

(iii) the hypothesis in (i) entails that the output of grammaticalization is a predictable pattern in a given language; hence, to the well-known properties of grammaticalization (desemanticization, cliticization, erosion, cf. Heine 1993 / desemanticization, decategorization, coalescence, erosion, cf. Lehmann 1995), a novel one may be added: grammaticalization is a mechanism of change that *creates a* (predictable) *pattern* – when several elements of the same type undertake the same path of grammaticalization (e.g. lexical verbs becoming TAM auxiliaries), they reach a similar structural end point.

**Domain of inquiry.** The periphrastic structures under analysis in this paper are made up of what we call ‘TAM auxiliaries’ plus a non-finite lexical verb – a past participle, an infinitive or a gerund (/present participle). TAM auxiliaries solely encode mood, tense, and aspect values, and realize the cells of an inflexional paradigm typically realized by inflexional forms elsewhere in the paradigm, cf. Lat. *habuīt* = Rom. *a avut* / Fr. *il a eu*.<sup>3</sup> We leave out the passive auxiliary *fi* ‘be’ and other structures with functional verbs which are not full auxiliary verbs (e.g. the ‘semi-auxiliary’ verbs *putea* ‘can, be able to’, *trebui* ‘must, have to’); here are the reasons for excluding this set of functional verbs: (i) these functional verbs display the inflection of a lexical verb, in contrast to TAM auxiliaries referred to above, (ii) they do not make up a cluster/verbal complex with the lexical verb, and (iii) clitic climbing obtains in some configurations, but not in all. The periphrastic futures with the lexical verb in the subjunctive (the ‘*am să*’ and the ‘*o să*’ futures) have been left out as these periphrases are structurally different from those involving TAM auxiliaries discussed here); for example, pronominal clitics reside in the subjunctive domain and do not undergo clitic climbing to the auxiliary (we will, however, get back to these subjunctive-based futures below, as they are relevant for the issue of compositionality). The TAM auxiliaries under discussion share a series of morphosyntactic properties which identifies them as a class: (i) they have very limited inflection (i.e. they are exponents of TAM categories, they do not themselves undergo TAM inflection); (ii) pronominal clitics obligatorily adjoin to the auxiliary<sup>4</sup>; (iii) the auxiliary and the lexical verb make up a cluster/verbal complex (cf. also Guțu Romalo 1962, Giurgea 2011) – the contiguity between the auxiliary and the lexical verb can be broken only by the five clitic adverbial *cam*, *mai*, *prea*, *tot* and *și*, not by full XPs; even under V-Aux inversion (more widespread in older stages of Romanian), this contiguity in the cluster is maintained (Nicolae 2019b: ch. 2).

**Objectives.** In this paper, we focus on Romanian in a comparative (especially Romance) setting and bring evidence to support the general claims advanced above. In

<sup>3</sup> Cf. also Ramat and Rica (2016: 53): “The Romance verb system introduces many periphrastic forms that have roughly the same function as the synthetic forms of the mother language”.

<sup>4</sup> The accusative 3rd person pronominal clitic *o* has special properties: it is enclitic to the lexical verb in the presence of an auxiliary whose onset is the vowel *a-* (e.g. *am văzut-o* ‘(I) have.IND.1SG see.PTCP=**her**(CL) vs *I-am văzut* ‘(I) **him**(CL)=have.IND.1SG see.PTCP). Structural (Ledgeway 2018) as well as phonological factors (Nicolae 2015: 91, 125, 157–158) have been invoked to account for the special linearization properties of this pronominal clitic. What is, however, relevant for our discussion here is the fact that *o* is enclitic to the lexical verb in these configurations, therefore it is still part of the cluster/verbal complex.

particular, we focus on a phenomenon that consists in the disappearance of a set of TAM periphrases in the diachrony of Romanian; the defining property of these now-defunct periphrases is that their auxiliaries have a richer feature matrix (their auxiliaries also inflect for tense), this setting them apart from the auxiliaries of the surviving periphrases. Ineluctably, this paper also touches other related issues. One of these is *compositionality*; we show that, although sometimes counterintuitive, the main temporal interpretation of a given form is, in general, obtained compositionally<sup>5</sup>, i.e. through the contribution of its component parts (Comrie 1985: 76; *pace* Vincent 2015). Implicitly, the division of labour between the auxiliary/auxiliaries and the lexical verb is also taken up.

The diachronic analysis is based on a corpus of old Romanian texts (see **Corpus of old Romanian texts**) starting from the earliest attested Romanian writings of the 16<sup>th</sup> century. Following Romanian philological tradition (see Timotin 2016 and references therein), the period labelled as ‘old Romanian’ refers to the timespan roughly stretching from the beginning of the 16th century to the end of the 18th century.

The **outline** of the paper is the following: in §2 we present the empirical and theoretical background necessary for placing our claims in perspective; §3 is devoted to the presentation of empirical data which support our claims; §4 proposes a formal analysis of the data and discusses the consequences of the analysis; §5 concludes.

## 2. BACKGROUND AND FRAMEWORK

Research in comparative Romance historical syntax has systematically insisted on the idea that the profusion of auxiliary structures, one of the most significant changes in the passage from Latin to Romance (Ledgeway 2011: 420), is best understood from the perspective of “a number of general cross-linguistic parameters of auxiliiation [...] which characterize to various degrees those Romance verbs which realize verb-related categories such as tense, aspect, mood, and voice” (Ledgeway 2016: 767), rather than from the perspective of the existence of a discrete class of Romance auxiliaries<sup>6</sup>. Note also in this respect Manoliu’s (1961: 221) early observation (with reference to the grammaticalization of Romance auxiliaries): “grammaticization does not happen in all languages in identical directions or act exactly upon the same verbs, nor does it affect the same number of verbs” (cf. also Papahagi 2014 on Romanian future periphrases). Anderson’s (2006) cross-linguistic survey of auxiliary-verb constructions has revealed that the most basic and geographically and genetically widespread functions auxiliaries are to encode (or allow the encoding of)

<sup>5</sup> This does not entail that non-compositional forms do not exist; for various reasons (e.g. successive instances of grammaticalization and periphrasis formation, known as *Dahl’s paradox*), compositionality breaks down and the interpretation of an analysable linguistic structure is not read off from its component parts (see Vincent 2015)

<sup>6</sup> The “restructuring” of the verbal systems in the transition from Latin to Romance is not limited to synthetic-to-analytic shifts (TAM marking by means of auxiliary verbs), but also includes: emergence of analytic passives, emergence of conditionals and counterfactuals (analytic in Rom. or synthetic in Fr., It., Sp., Ptg., made up of the infinitive + a form of HABERE, in an unusual word order), appearance of finer-grained semantic distinctions (e.g. future proper *vs* imminential), and emergence of causatives (“halfway between genuinely biclausal structures [...] and inflectional or synthetic causatives”, Vincent 2016: 44) (Vincent 2016; see also Ramat and Ricca 2016, Bertinetto and Squartini 2016).

tense, aspect, and mood<sup>7</sup>. Taken together, these observations indicate that the feature matrix of an auxiliary (as well as the division of labour of the components of a periphrasis) has to be identified for each language/structure in turn; and in light of Ledgeway's and Manoliu's remarks above which point to the "absence of a discrete class of Romance auxiliaries" (Ledgeway 2011: 420), this task is of outmost importance for the analyst of a Romance language.

Before we move to the analysis of the empirical data, it is important to briefly introduce the framework: we adopt the cartographic insight that the I-domain is made up of three different hierarchically ordered layers of structure (Cinque 1999); we thus distinguish a Mood-related field, a Tense-related field, and an Aspect-related field as in (1) (see Schifano 2018 for an up-to-date approach; see also Nicolae 2015: 64–90 for a comprehensive discussion of the clause structure of Romanian from this perspective). Note that it has become common practice in the reference literature to assume that the Romance I-domain consists of a relevant number of functional projections, an idea well captured by Ledgeway and Cruschina's (2016: 559) characterization of Romance clausal structure, described as "a highly articulated clause structure, considerably richer in functional projections than traditionally assumed".

- (1)  $[_{CP} \text{ForceP} > \text{FinP} [_{IP} \text{MoodP}(\text{field})^8 > \text{TP}(\text{field}) > \text{AspP}(\text{field}) [_{\text{Voice-VP}} \dots$

In modern Romanian, synthetic finite verbs undergo V-to-I movement (Dobrovie-Sorin 1994, Cornilescu 2000, Ledgeway 2015 i.a.), to the top-most I-field, Mood (Nicolae 2015, Schifano 2018). In analytic constructions, both the auxiliary/auxiliaries and the lexical verb reside in the I-domain<sup>9</sup> (Alboiu and Motapanyane 2000, Nicolae 2015); in this respect, Romanian contrasts with Romance languages like French, where auxiliaries reside in the I-domain, but lexical verbs do not undergo raising to the I-domain. Old Romanian is characterized by relevant differences in the level of verb raising: on the one hand, V-to-C movement (analysed by Nicolae 2019b as an instance of medieval Romance V2) also occurs in finite non-imperative clauses, this giving rise to the V-(Cl)-Aux word order and pronominal enclisis; on the other hand, old Romanian shows instances of low verb movement, on the surface manifested as scrambling and interpolation (see Nicolae 2019b: Ch. 2 and Ch. 3 for a comprehensive discussion).

<sup>7</sup> Auxiliaries encoding **tense**: Canela-Krahô (Macro-Jê, Brazil); Wambaya (Australia); Jingulu; Tuvan; Turkmen; Tswana; auxiliaries encoding **mood**: Mapudungu (Araucanian, Chile); Xakas; Tswana (Bantu, Botswana); Betta Kurumba (Dravidian, India); Chepang (Tibeto-Burman, Nepal); Ngiyambaa (Australia); auxiliaries encoding **aspect**: Gtaʔ; Rama (Chibchan, Nicaragua); Loni (Austronesian, Papua New Guinea); Raga (Austronesian, Vanuatu); Lavukaleve (East Papuan; Solomon Islands). Source: Anderson (2006).

<sup>8</sup> For the limited purposes of this paper, it is immaterial to work with the entire array of Cinquean projections, so we will conventionally use the notation MoodP for the Mood field, TP for the Tense field and AspP for the Aspect field.

<sup>9</sup> In conditional imprecations, characterized by the V-(Cl)-Aux word order, the lexical verb undergoes movement to C; imperative synthetic verbs and gerunds also undergo movement to C (as shown by pronominal enclisis); the first two instances of movement to C are triggered by a [+directive] feature; movement to C with gerunds is morphologically determined (see Nicolae 2015: 109–113 for details).

### 3. ROMANIAN AUXILIARIES AS MOOD MARKERS

#### 3.1 The division of labour in TAM periphrases

A cursory comparison between the ‘have’-based periphrases of (standard) French (2) and (standard) Romanian (3) immediately reveals the different TAM organization of these two languages:

(2)	a	<i>j'ai</i> I=have.IND.PRS.1SG 'I ate/have eaten'	<i>mangé</i> eat.PTCP	(French)
	b	<i>j'avais</i> I=have.IND.IMPF.1SG 'I had eaten'	<i>mangé</i> eat.PTCP	
	c	<i>j'aurai</i> I=have.FUT.1SG 'I will have eaten'	<i>mangé</i> eat.PTCP	
	d	<i>j'aurais</i> I=have.COND.PRES.1SG 'I would have eaten'	<i>mangé</i> eat.PTCP	
(3)	<i>eu</i>	<b>am</b> I have.IND.1SG 'I ate/have eaten'	<i>mâncat</i> eat.PTCP	(Romanian)

The contrast between (2) and (3) indicates that in Romanian, the ‘have’-auxiliary is confined to the indicative compound past, while its French counterpart has wider inflectional possibilities, forming alongside the past participle a bigger number of periphrases; in this respect, it is important to recall D’hulst, Coene and Avram’s (2004) observation that Romanian lacks the periphrastic past perfect based on the simple past of the verb ‘have’ and the past participle (*\*avusei mâncat* have.PLUPERF.1SG eat.PTCP), as well as a periphrastic construction of the type ‘have’ in the imperfect plus the past participle (cf. Fr. (2b) or It. *avevo cantato*). Thus, as has been noticed by Dobrovie-Sorin (1994), D’hulst, Coene and Avram (2004), Coene and Tasmovski (2007: 331-332), Avram and Hill (2007), Giurgea (2011) and Nicolae (2015, 2019a), as an auxiliary, in Romanian ‘have’ does not possess tense features: it is unable to undergo tense variation, but it is unambiguously specified for the indicative, bearing thus **mood** features. By contrast, the bigger number of periphrases in which French ‘have’ may occur is due to the fact that the French auxiliary may undergo both **tense** and **mood** variation. Thus, the feature matrix of the auxiliary ‘have’ differs from one language to the other. These observations immediately raise problems concerning the division of labour between the auxiliary and the lexical verb in the periphrasis – and, implicitly, the issue of compositionality. We will return to these issues later in this section, where a larger set of periphrases are considered.

We begin by focusing on the nature and diachrony of the Rom. compound past auxiliary *avea* (‘have’) in support of the hypothesis that it is an exponent of mood; this analysis will then be extended to the entire array of Romanian TAM auxiliaries. Several facts support the hypothesis that Rom. ‘have’ is an exponent of mood, devoid of tense (and aspect) features.

First, consider the inflectional make-up of ‘have’ as a finite lexical verb (4) vs its inflection as an auxiliary (5). One immediately observes the absence of the tense and aspect morphemic contribution in the internal structure of the auxiliary verb.

(4)	Rom. <i>avea</i> ‘have’ as a lexical verb (finite forms)				
a.	Indicative	present	<i>a-m</i>	<i>av-e-m</i>	
			<i>a-i</i>	<i>av-e-ți</i>	
			<i>ar-e</i>	<i>a-u</i>	
b.		imperfect	<i>av-ea-m</i>	<i>av-ea-m</i>	
			<i>av-ea-i</i>	<i>av-ea-ți</i>	
			<i>av-ea-ø</i>	<i>av-ea-u</i>	
c.		pluperfect	<i>av(-)u-sese-m</i>	<i>av(-)u-sese-răm</i>	
			<i>av(-)u-sese-și</i>	<i>av(-)u-sese-răți</i>	
			<i>av(-)u-sese-ø</i>	<i>av(-)u-sese-răø</i>	
d.	Subjunctive	present ( <i>să</i> )	<i>a-m</i>	<i>av-em</i>	
			<i>a-i</i>	<i>av-eți</i>	
			<i>aib-ă</i>	<i>aib-ă</i>	
(5)	<i>avea</i> ‘have’ as a compound past auxiliary				
			<i>a-m</i>	<i>a-m</i>	
			<i>a-i</i>	<i>a-ți</i>	
			<i>a</i>	<i>a-u</i>	

Secondly, consider the following argument from diachrony: the basis of grammaticalization for the Romance/Rom. auxiliary ‘have’ is indicative present tense form of HABERE (cf. Harris 1982, Pinkster 1987 and Roberts 2013 and references therein; see, with particular reference to Romanian, Rosetti 1938, Caragiu-Marioțeanu 1969, Dimitrescu 1978), which underwent the changes depicted in (6) for Romanian.

- (6) Lat. HABERE ‘have’ > Rom. auxiliary *avea* ‘have’  
*habeo* > *aibu* > *amu* (by analogy with 1PL) > *am*  
*habes* > *ae* > *ai*  
*habet* > *ae(t)* > *a*  
*habemus* > *aemu*<sup>†</sup> > *amu* > *am*  
*habetis* > *aeți*<sup>†</sup> > *ați*  
*\*habunt*<sup>‡</sup> > *au*  
<sup>†</sup>*aemu*, *aeți* – attested in Aromanian  
<sup>‡</sup>cf. also *faciunt* > *facunt*, attested in the Latin inscriptions from Dacia

The grammaticalization of Lat. HABERE as the Rom. auxiliary *avea* is characterized by the regular phenomena which occur when lexical verbs become auxiliaries: (i) phonological reduction (see (6)); (ii) loss of thematic structure (cf. Lat. HABEO EPISTULAS SCRIPTAS ‘I’ve got the letters written’ → Rom. *Am scris o scrisoare* ‘I have written a letter’, see Roberts 2013); and (iii) loss of (grammatical) features. Loss of grammatical features is particularly relevant: in the case of the Romanian (and Romance) ‘have’ compound past, the basis of grammaticalization is the indicative present tense form of HABERE; thus, the feature which is lost is the [PRESENT] tense feature, while the [INDICATIVE] mood feature is preserved. Endowing the Romanian auxiliary *avea* with tense features (i.e. a [PAST] feature) would

imply that grammaticalization involves acquiring novel features, not loss of features – and this goes against most of what is known about grammaticalization in general, and the grammaticalization of auxiliaries in particular. Rather, if Roberts and Roussou's (2003) technical view is adopted, then 'have' grammaticalizes by upwards movement on the functional spine, coming to lexicalize one of the higher functional heads in the IP, i.e. it merges directly in Mood<sup>0</sup> (or in one of the Mood<sup>0</sup> heads if a detailed Cinquean hierarchy is adopted) and it values the features of this head as [INDICATIVE]. To sum up, the diachronic transformation of 'have' into a compound past auxiliary inescapably leads to the conclusion that it is an exponent of mood, devoid of tense (and aspect) features.

The analysis of the Rom. auxiliary 'have' as a marker/exponent of indicative mood immediately raises the issue of compositionality: is the (Romanian) compound past compositional? For authors like Vincent (2015), the French compound past is not, "since there is a conflict between the [PAST] value of the whole periphrasis and the feature [PRESENT] that can be assigned to a 'have' in other contexts, e.g. *Pierre a une petite sœur* 'Pierre has a little sister'." (p. 106). Vincent's observation can be straightforwardly extended to the Romanian compound past. Another problem which should be addressed by any compositional analysis is the following. It is well known that, besides expressing a past event (e.g. *Am locuit aici acum 20 de ani* 'I lived here 20 years ago'), the Romanian compound past is also used as a present perfect (e.g. *Am locuit în București din 1984* 'I have been living in Bucharest since 1984'); is there a possibility to formulate a correct division of labour between the lexical verb and the auxiliary which ensures that both readings are available and the interpretation of the periphrasis is compositional? We believe there is, if a proper framework is formulated.

Sigurdsson (2016: 80) observes that the "ambiguity of non-finite tenses is widespread across languages, perhaps universal". Romanian past participles are not exceptional in this respect, as their feature matrix has been analysed as encoding *past tense* and *perfective aspect* (Stati 1965:195, D'hulst, Coene and Avram 2004: 360, 364 i.a.); past participles in general have been given this analysis (see, for example, Comrie 1985: 65ff or Sigurdsson 2016 i.a.). In a series of individual and joint papers (Sigurdsson 2016, Sigurdsson and Maling 2012), H. A. Sigurdsson formulates a neo-Reichenbachian (cf. Reichenbach 1947) account of tenses, in the line of Giorgi and Pianesi (1997), which has the potential to allow one to formulate a proper account of the division of labour between the auxiliary/auxiliaries and the lexical verb, ensuring that double readings are available. In this framework,  $\leftrightarrow$  marks computational relations between Speech Time, Event Time, and Reference Time abbreviated as S, E, R); the potential computational relations are those given in (7):

- (7) Computational relations (Sigurdsson 2016)  
 = unshifted "simultaneously as"  
 $\geq$  non-future (past/present) "no later than"  
 $>$  past "sooner than"  
 $\leq$  non-past (present/future) "no sooner than"  
 $<$  future "later than"

According to Sigurdsson (2016), a tense system involves a finite part and a non-finite part: the non-finite part is responsible for the (E  $\leftrightarrow$  R) relation, while the finite part is responsible for the relation between S and (E  $\leftrightarrow$  R) (i.e. S  $\leftrightarrow$  (E  $\leftrightarrow$  R)). This double system

is not discernible in the case of simple tenses due to the simultaneity of R and E (i.e.  $E = R$ ). However, in addition to unshifted ( $E = R$ ), the non-finite part of the tense system of languages like English has two potentially shifted relations:

- (8)  $E = R$ : unshifted – (most) gerunds: *working*  
 $E \geq R$ : present/past – past participles: *worked*  
 $E \leq R$ : present/future – infinitives: *to work*

We believe that Sigurdsson's analysis of English non-finite forms can be extended to Romanian. In light of the above comments, it is a clear fact that the Romanian past participle has a simultaneous and a shifted reading. This immediately accounts for the fact that the Romanian compound past is used as tense of the past and as a present perfect. Turning to infinitives, it has been noticed since Stowell (1982) that infinitives may have both a simultaneous reading and a shifted reading. The Romanian (present) infinitive is no exception in this respect: in the structure of periphrastic forms, the infinitive's most prominent contexts of occurrence are the *voi*-future (9a) and the present conditional (9b); in the former, the infinitive has a shifted (future) reading, in the later it generally has a simultaneous reading (but see (13) below).

- (9) a. *voi* *merge* (future)  
 IND.1SG go.INF  
 'I will go'  
 b. *aş* *merge* (conditional)  
 COND.1SG go.INF  
 'I would go'

Contrasts like the following confirm the hypothesis that the auxiliary/auxiliaries primarily encode mood values, and the lexical verbs is responsible for temporal interpretation.

- (10) a. *voi* *cânta* (future proper)  
 IND.1SG sing.INF  
 'I will sing'  
 b. *voi* *fi* *cântat* (future perfect)  
 IND.1SG IRR sing.PTCP  
 'I will have sung'
- (11) a. *O* *fi* *venind* *azi* / *mâine* / *\*ieri?*  
 PRESUMP IRR come.GER today tomorrow yesterday  
 'Is it possible that he is coming today/tomorrow?/ Is he coming today/tomorrow?'  
 b. *O* *fi* *venit* *??azi* / *\*mâine* / *ieri?*  
 PRESUMP IRR come.PTCP today tomorrow yesterday  
 'Is it possible that he came? / Did he come?'
- (12) a. *ar* *fi* *venind* (non-past conditional)  
 COND.3SG IRR come.GER  
 'he would come / be coming'  
 b. *ar* *fi* *venit* (past/perfect conditional)  
 COND.3SG IRR come.PTCP  
 '(s)he would have come'

Let us focus on the minimal pairs in (10)–(12). The pair in (10) places in contrast the future proper and the future perfect; the future proper is made up of the auxiliary *voi* plus the infinitive, while the future perfect uses the same *voi*-auxiliary plus a sequence made up of the irrealis auxiliary *fi* ‘be’<sup>10</sup> and the past participle of the lexical verb – this sequence has also been interpreted as being the past/perfect infinitive, hence the future perfect may be reanalysed as being made up of the auxiliary *voi* plus the perfect/past infinitive (cf. Avram 1999: 40, D’hulst, Coene and Avram 2004 and Nicolae 2015: 82f. i.a.; the same goes for the perfect conditional). Obviously, the R ↔ E relation is established by the non-finite component of these periphrases. The minimal pair in (11) places in contrast the two forms of the presumptive; the only difference between them is the morphology of the lexical verb: a gerund/present participle in (11a) and the (past) participle in (11b); the difference in temporal orientation – (11a) has a present/future orientation (as shown by the felicity of the ‘today’, ‘tomorrow’ adverbials in this contexts), excluding a past/perfect orientation, and (11b) has the opposite reading (witness the compatibility with the ‘yesterday’ adverbial) – derives exclusively from the non-finite morphology of the lexical verb, as the sequence of auxiliaries that precedes the lexical verb is identical. Finally, consider the minimal pair in (12); (12b) is a past/perfect conditional and (12a) is a more rarely used gerundial periphrasis (typically overlooked in descriptive grammars of Romanian), whose interpretation is similar to that of the present conditional (cf. (9b)), but with an overtone of uncertainty contributed by the gerund morphology of the lexical verb (this bringing it closer to the presumptive in (11a)) (Popescu 2019). Once again, like in the previous case, the obvious differences in temporality (also reflected by the translations) result from the different morphology of the lexical verb (participle *vs* gerund). In this respect, it is important to note that D’hulst, Coene and Avram (2004) also show that in the situation of the future perfect or the past/perfect conditional, anteriority is expressed on the lexical verb, not on the auxiliary.

Before we conclude this section, there are several issues which should be taken up and clarified. Consider again the minimal pair in (9) above: (9a) is the indicative future and (9b) is the present conditional. With both periphrases, the lexical verb occurs as an infinitive, and the only difference between them is the choice of different auxiliaries: *voi* for the indicative future and *aş* for the present conditional. *Prima facie*, this might be taken as direct evidence against our analysis, which assumes that auxiliaries are exponents/markers of mood, as the future/present distinction results from the selection of different auxiliaries (but note also that the indicative/conditional difference does too). However, there are at least three different arguments in favour of the analysis of Romanian auxiliaries as exponents/markers of mood.

To begin with, recall that the future is, essentially, an irrealis form, not necessarily a tense (see the discussion in Palmer 2001), and so is the conditional (see Popescu 2013 for Romanian). While past tenses and perfect tenses generally express a factual event which

<sup>10</sup> Despite being typically analysed in traditional grammars as a perfective auxiliary (due to its occurrence with forms like the future perfect (10b), perfect/past conditional (12b), past/perfect infinitive) (GLR 1966, Dobrovie-Sorin 1994, GALR 2008), Avram and Hill (2007) and Niculescu (2013) show that the non-passive auxiliary *fi* ‘be’ is an irrealis auxiliary (witness its occurrence in gerundial periphrases (cf. (11a), (12a)), which are not perfective in any respect – see the discussion in Niculescu 2013: 190–192).

took place, irrealis forms have been characterised as non-assertive and non-factual<sup>11</sup>. Note that the label “present conditional” is conventional: it stands in opposition to the label “past/perfect conditional”; and it is, actually, a misnomer: the infinitive of the lexical verb may still occur both with the simultaneous and with the shifted reading, as the “present” conditional may actually have a present (13a) or a future (13b) orientation. (In this respect, it is relevant to mention that Spanish grammars discuss the conditional under the heading ‘tenses of the indicative’.)

- (13) a. *aș*                      *face*    *asta*    *chiar acum*  
          COND.1SG            do.INF    this    right now  
          ‘I would do this right now’
- b. *aș*                      *veni*                      *mâine*  
          COND.1SG            come.INF                tomorrow  
          ‘I’d come tomorrow’

A second piece of evidence comes from one of the alternative future periphrases, the *am să*-future, which is made up of the auxiliary ‘have’ and the lexical verb in the subjunctive (14).

- (14) a. *am*                                      *să*            *vin*  
          have.IND.PRS.1SG                SUBJ        come.1SG
- b. *ai*                                        *să*            *vii*  
          have.IND.PRS.2SG                SUBJ        come.2SG
- c. *are*                                       *să*            *vină*  
          have.IND.PRS.3SG                SUBJ        come.3SG
- d. *avem*                                    *să*            *venim*  
          have.IND.PRS.1PL                SUBJ        come.1PL
- e. *aveți*                                    *să*            *veniți*  
          have.IND.PRS.2PL                SUBJ        come.2PL
- f. *au*                                        *să*            *vină*  
          have.IND.PRS.3PL                SUBJ        come.3PL  
          ‘I/you/(s)he/we/you/they will come’<sup>12</sup>

This periphrasis is structurally different from the TAM periphrases analysed so far, as insisted in §1, the *am să*-future is part of a distinct class of periphrases (see also §3.2.1 below), and the analysis of auxiliaries formulated so far does not extend to this class of periphrases. However, when it comes to compositionality, the *am să*-future is highly relevant to our argumentation due to its fully transparent internal structure. This periphrasis

<sup>11</sup> Cf. also Mithun (1999: 173): “The irrealis portrays situations as purely within the realm of thought, knowable only through imagination.”

<sup>12</sup> Diachronically, this periphrasis is the result of the grammaticalization of a construction involving ‘have’ with a modal deontic reading (*Am să plec* ‘I have to/must leave’ → ‘I will leave’), a widespread path of grammaticalization (Kuteva *et al.* 2019: 288); the deontic reading is still marginally available. Although it originates from a construction with an isomorphic structure (an infinitive preceded by the modal ‘want’ originally in the present tense, see main text below), the *voi*-future no longer retains the modal reading. As the auxiliary verbs become morphemically opaque, the purely modal readings are eliminated and only the future readings are preserved.

is made up of verb *avea* ‘have’ fully inflected for the indicative present tense plus a present subjunctive. In contrast to the compound past version of the auxiliary ‘have’ (see (5)), in the *am să*-future the auxiliary has full inflection of lexical ‘have’; compare the paradigm of ‘have’ in the *am să*-future in (14) with that of lexical ‘have’ in (4a); the boldfaced occurrences in (14) are those where lexical ‘have’ and *am să*-future ‘have’ differ from compound past ‘have’. Consider now the subjunctive component of this periphrasis: this subjunctive has been analysed by Pană Dindelegan (2013: 210-211) as a “non-finite” subjunctive, due to its perfect functional equivalence with the infinitive in this periphrasis; in more formal terms, it is an “anaphoric” subjunctive (see Cotfas 2011 for a typology of Romanian subjunctives), a variety of subjunctive which has no temporal operator of its own, and which typically occurs in OC/raising configurations or as a formative of analytic forms. Thus, to sum up, what we have in this periphrasis is ‘have’ devoid of theta-assigning possibilities in the **indicative present tense** (morphemically speaking) plus a “**non-finite” subjunctive**; is there any element formally specified as a “future”? No, there is not, yet the reading of the *am să*-future is identical to that of the *voi*-future. The lesson we draw from the analysis of the *am să*-future is that an auxiliary in the indicative present (due to its athematic nature and semantically bleached nature, ‘have’ can be considered an auxiliary here) in conjunction with the shifted, future reading of the “non-finite” subjunctive (functionally, an infinitive) yields a future reading. We believe that this confirms our proposal that a future interpretation is obtained compositionally from the combination of an indicative auxiliary and a non-finite form with a shifted interpretation.

Thirdly, is there a reason why an auxiliary like *voi* selects an infinitive with a shifted reading, yielding a future, while one like *aș* selects an infinitive which is underspecified (simultaneous and shifted), yielding a conditional with both a present and a future orientation? This interpretative difference might find its explanation in the different etymologies of the auxiliary verbs. While there are many etymological controversies, the most plausible analysis is that the auxiliary *aș* has its origin in **past tense forms** (imperfect, perhaps contaminated with the simple past) of *vrea* (‘want’) (see, more recently, Coene and Tasmowski 2006 and Zafiu 2017 for this hypothesis; see also Dragomirescu, Nicolae and Zafiu 2021: §8.2.1 for a more detailed discussion)<sup>13</sup>. By contrast, the auxiliary *voi* originates from the **present tense forms** of the descendant of Lat. *VOLO, VELLE*, regularized (as *voleo, velis, volet, volemus, voletis, volunt*, which yielded *voi, vei, va, vom, veți, vor*) (Marta 1978: 297). If we understand temporal interpretation as resulting from the combining an auxiliary marking mood with an infinitive, then the diachronic evolution of conditional *aș* and indicative *voi* might explain why the first one selects an underspecified infinitive, and the second one selects a shifted (future oriented) infinitive: it is highly plausible that a past tense form *vs* a present tense form of a volitional verb undergoes different types of semantic bleaching, producing irrealis auxiliaries of different types; ‘volition’ in the past and ‘volition’ in the present are quite different categories from a semantic perspective. While this etymological explanation might border on speculation, we may retain the idea that the relation between auxiliaries and the lexical verb may be reformulated from the perspective of selection (this explaining the different temporal

<sup>13</sup> Essentially, there are three main etymological hypotheses on the origin of the conditional auxiliary *aș*: the ‘have’ hypothesis, the ‘want’ hypothesis and the ‘be’ hypothesis (see Coene and Tasmowski 2006: 324–331; Geană 2013: 1235). With the notable exception of Titova (1959), most of the proponents of the HABERE hypothesis assume that the conditional auxiliary derives from a past form of a descendant of HABERE in a modal usage (see Zafiu 2017: 3 for details), a fact which supports the hypothesis advanced in the main text.

interpretations of the periphrases): one auxiliary (an indicative auxiliary) selects an infinitive with a shifted reading (yielding a future), while the other (a conditional auxiliary) selects an underspecified infinitive (yielding a form with a present and a future orientation).

In conclusion, we believe that the arguments presented in this section provide solid evidence in favour of the hypothesis that, in the set of periphrases made up of a non-finite verb form (a participle, an infinitive, or a gerund) and an auxiliary/two auxiliaries, auxiliaries are markers/exponents of mood. Evidence has been brought also in favour of the compositional nature of these periphrases. Last but not least, in support of our conclusion it is worth highlighting the fact that it is not coincidental that auxiliary selection in Romanian is distributed according to the category of mood, on the realis/irrealis dimension (Ledgeway 2015), as testified by the existence of an irrealis auxiliary in Romanian, namely *fi* ('be') (Avram and Hill 2007) (see also footnote 10 above).

### 3.2. Grammaticalization as pattern formation: disappearance of periphrases in the passage from old to modern Romanian

In this section, we focus on a particular phenomenon which took place in the passage from old to modern Romanian, consisting in the disappearance of a relevant number of periphrastic structures (novel, in contrast to Latin); against the well-known transition from syntheticity to analyticity in the development of the Romance languages (Romanian included), there is a set of periphrases that died out<sup>14</sup>. We show that what distinguishes these now-defunct periphrases from the surviving periphrases is the richer feature matrix of their auxiliary/auxiliaries. We first present a brief outline of the TAM system of modern Romanian, and then move to the analysis of the diachronic data.

#### 3.2.1 A brief outline of the TAM system of modern Romanian

The tables below represent a systematization of the TAM system of standard modern Romanian in accordance with Romanian reference grammars (see Zafiu 2013 for a review).

##### Synthetic forms

(encode the TAM values syncretically, through inflectional means)

##### Indicative

- **present**: *ascult, ascuți, ascultă, ascultăm, ascultați, ascultă* ('I (am) listen(ing)...')
- **imperfect**: *ascultam, ascultai, asculta, ascultam, ascultați, ascultau* ('I was listening...')
- **simple past** (obsolete / regional): *ascultai, ascultași, ascultă, ascultarăm, ascultarăți, ascultară* ('I listened')
- **pluperfect**: *ascultasem, ascultaseși, ascultase, ascultaserăm, ascultaserăți, ascultaseră* ('I had listened')

##### Subjunctive<sup>15</sup>

- **present**: *să* + inflected verb: *să ascult, să ascuți, să asculte, să ascultăm, să ascultați, să asculte* ('that I should listen...')

<sup>14</sup> Few of these periphrases have been preserved in the Daco-Romanian dialects (see Dragomirescu, Nicolae and Zafiu 2021: §8.4 for an inventory and discussion).

<sup>15</sup> The Romanian present subjunctive is made up of the invariable particle *să* plus than inflected verb; structurally, it is analytic, but not periphrastic, and this is why it is listed alongside the synthetic verb forms in this brief outline.

**Imperative:** *Ascultă!* / *Ascultați!* ('Listen!'(SG./PL.)), *Nu asculta!* / *Nu ascultați!* ('Don't listen!' (SG./PL.))

### Periphrastic forms

(TAM marking is encoded by the auxiliary/auxiliaries + the lexical verb)

#### Indicative

- **compound past:** 'have' + past participle: *Am ascultat* ('I (have) listened')
- **future:**
  - (standard & regional) *voi* + infinitive: *Voi/Oi/Ăi asculta* ('I will listen')
  - (colloquial) *o* + subjunctive: *O să ascult* ('I will listen')
  - (colloquial) 'have' (present) + subjunctive: *Am să ascult* ('I will listen')
- **future perfect:** *voi* + *fi* + past participle: *Voi/Oi fi ascultat* ('I will have listened')
- **future in the past:** 'have' (imperfect) + subjunctive: *Aveam să ascult* ('I was going to listen')

#### Subjunctive

- **perfect:** *să* + *fi* + past participle: *să fi ascultat* ('to have listened')
- **epistemic (gerundial):** *să* + *fi* + gerund: *să fi ascultând* ('to be / might be / may be listening')

#### Conditional

- **present:** *aș*-auxiliary + infinitive: *Aș asculta* ('I would listen')
- **perfect:** *aș*-auxiliary + *fi* + past participle: *Aș fi ascultat* ('I would have listened')
- **gerundial:** *aș*-auxiliary + *fi* + gerund: *Aș fi ascultând* ('I would listen/be listening')

#### Presumptive

- **present:**
  - (syncretic with the regional future): *Oi asculta* ('I might be listening')
  - *voi* + *fi* + gerund: *Voi fi ascultând* ('I might be listening')
- **perfect:**
  - (syncretic with the future perfect) *voi* + *fi* + participle: *O/Va fi ascultat* ('He might have listened')

It is important to make a few comments on the subjunctive-based future periphrases. The colloquial future made up of the particle *o* plus the subjunctive (*O să ascult* 'I will listen'), the colloquial future made up of fully inflecting 'have' in the indicative present tense plus the subjunctive (*Am să ascult* 'I will listen') (see also the discussion of example (14) in §3.1 above), and the future in the past made up of 'have' in the indicative imperfect plus the subjunctive (*Aveam să ascult* 'I was going to listen') are structurally different from the periphrases where the lexical verb surfaces as a non-finite form: pronominal object clitics adjoin to the subjunctive (15) and do not undergo clitic climbing to the particle/functional verb; the verb 'have' may undergo inflection yielding a future in the past (15b); and negation may also marginally adjoin to the subjunctive (16). Dobrovie-Sorin (1994) and Avram (1999) argue that they are subject to a biclausal analysis. As stated in §1, our analysis does not extend to these periphrases; it is limited to periphrases where the lexical verb shows up as a non-finite form.

- (15) a. *o / am* *să-l* *ascult*  
 FUT have.IND.PRES.1SG SĂ=CL.ACC.3SG.M listen.1SG  
 ‘I will listen to him’
- b. *aveam* *să-l* *ascult*  
 have.IND.IMPERF.1SG SĂ=CL.ACC.3SG.M listen.1SG  
 ‘I was going to listen to him’
- (16) *nu o /am /* *aveam* *să (?nu) ascult*  
 not FUT have.IND.PRES.1SG have.IND.IMPERF.1SG SĂ not listen.1SG  
 ‘I will not listen / I wasn’t going to listen’

Once the subjunctive-based future periphrases are left out, we notice that the Romanian auxiliaries can be classified depending on the category of mood:

- (17) *aș*: **conditional** (present, perfect, and gerundial)  
*(v)oi*: **indicative** future (proper, perfect, and gerundial) and **presumptive** (the historical descendance of the presumptive from the indicative future is well-known, see Zafiu 2013: 40–41)  
*am*: **indicative** compound past  
*fi*: **irrealis** periphrases

### 3.2.2 The loss of periphrases in the history of Romanian morphology

A cursory analysis of the TAM system of old Romanian reveals the existence of both common and distinct forms in comparison to modern Romanian. In the passage from old to modern Romanian we notice two distinct phenomena, which appear to be contradictory to a certain degree.

On the one hand, *we witness a transition from syntheticity to analyticity*, characterized by the emergence/consolidation of novel analytic periphrases, manifested through:

- the replacement of the synthetic forms by analytic forms (e.g. the synthetic (present) conditional/future, cf. (18), is replaced by analytic formations);
- the emergence/consolidation of irrealis *fi* (‘be’) formations and of subjunctive-based future periphrases (see Dragomirescu, Nicolae and Zafiu 2021 for a relative chronology of the *fi*-periphrases);
- the encroachment of analytic formations on the contexts previously reserved for synthetic forms (e.g. gradual replacement of the functions of the simple past by the compound past) (see Frâncu 2009: 306, Zafiu 2016: 33–35 i.a.)

- (18) *să te* *ascultare* (MR counterpart: *dacă te-ar asculta*)  
 if CL.ACC.2SG listen.COND.PRES.3SG  
 ‘if he listened to you’ (CT.1560–1: 38<sup>v</sup>)

On the other hand, we observe *the disappearance of a relevant number of periphrastic structures*. The periphrases which died out may be classified into<sup>16</sup>:

<sup>16</sup> Dragomirescu, Nicolae and Zafiu (2021) establish a different typology of old Romanian periphrases which, on the one hand, classifies them depending on the lexical verb, and, on the other

(A) Periphrases whose single auxiliary has a richer feature matrix, some of which are in competition with synthetic forms (e.g. witness the periphrastic pluperfects in (19), competitors of the synthetic pluperfect; these periphrastic pluperfects died out):

- (19) a. *ce nici dinioară nu era*  
 which never not be.IND.IMPERF.3PL  
*înțeles ucenicii lui*  
 understand.PTCP apostles.DEF his  
 ‘what his apostles had never understood’ (CC<sup>1</sup>.1567: 197<sup>v</sup>)
- b. *salce-l fusese vădzut*  
 willow.DEF.NOM=CL.ACC.SG.M be.IND.PLUPERF.SG see.PTCP  
 ‘the willow had seen him’ (CS<sub>VI</sub>.1590–602: 59<sup>v</sup>, Zafiu 2016)

(B) Double compound formations, whose second auxiliary is the past participle of *fi* (‘be’) (e.g. (20)):

- (20) *acel Lupul sărdariul să fie fost umblat*  
 that Lupul commander.DEF SĂ be.SUBJ be.PTCP wander.PTCP  
*ajungându-să cu moscalii*  
 colluding=CL.REFL.3SG with Russians.DEF  
 ‘that commander Lupul would have wandered and colluded with the Russians’  
 (NL.~1750–66: 383)

While the transition from syntheticity to analyticity is in line with the general changes occurring in the passage from Latin to Romance (see Ledgeway 2012: §2 and references therein), the demise of some periphrases illustrates the very opposite situation and stands in need of an explanation.

In what follows, we present the inventory of these now-defunct periphrases, respecting the typology established above, and then assess the relevance of their disappearance.

#### (A) Periphrases whose single auxiliary has a richer feature matrix

##### ○ the pluperfect **indicative** periphrases:

◇ *be* in the imperfect + past participle (very frequent in the 16<sup>th</sup> c., Densusianu 1961)

- (21) *mila și bunătatea ce era*  
 mercy.DEF and kindness.DEF which be.IND.IMPERF.3SG  
*adus Iisus la ei*  
 bring.PTCP Jesus to them  
 ‘the mercy and kindness Jesus had brought them’ (CC<sup>1</sup>.1567: 127<sup>r</sup>)

◇ *be* in the pluperfect + past participle (rare in the 16<sup>th</sup> c., Densusianu 1961)

- (22) *Învinse Dumnezeu și tu*  
 win.PS.3SG God and you

hand, considers the entire array of old Romanian periphrases. The analysis presented here only considers the periphrases which went extinct.





**(B) Double compound periphrases**

○ double compound perfect indicative (interpretation: a “true-past-in-the-past”, Zafiu 2016)

- (33) a. *Mihaiu vodă câți săraci au fostu scăpat*  
 Michael voivode how-many poor.PL IND.3SG be.PTCP free.PTCP  
*mai denainte vreamे den robiiа turciloru*  
 more before time from slavery.DEF Turks.DEF.GEN  
*și a tătărălor*  
 and GEN Tartars.DEF.GEN  
 ‘how many poor people (had) Michael voivode freed from the slavery of the Turks and Tartars ages ago’ (DÎ.1599: XVIII)
- b. *iară din temelul ei au*  
 and from foundation.DEF its IND.3SG  
*fost-o început-o Barnovschie*  
 be.PTCP=CL.ACC.3SG.F start.PTCP=CL.ACC.3SG.F Barnovschie  
 ‘and Barnovschie-voivode (had) laid its foundations’ (NL.~1750–66: 36)

○ double compound gerundial indicative

- (34) *Iar stăpâna pasărei au fost având*  
 and master.DEF bird.DEF.GEN IND.3SG be.PTCP have.GER  
*ibomnic și au fost viind în casă*  
 lover and IND.3SG be.PTCP come.GER in house  
*pe taină și să culca cu dinsa.*  
 in secret and CL.REFL.3SG sleep.IND.PRES.3SG with her  
 ‘and the master of the bird was having a lover and he was secretly coming into the house and sleeping with her’ (Sind.1703: 84<sup>v</sup>)

○ double compound subjunctive

- (35) *Află-să această țară să fie fostu*  
 discover.PRES.3SG=CL.REFL.3SG this country SĂ be.3SG be.PTCP  
*lăcuit și alții într-însa mai nainte de noi*  
 live.PTCP also others in=it before of us  
 ‘one may discover that in this country others had lived before us’  
 (ULM.~1725: 3<sup>v</sup>)

○ double compound conditional, perfect and gerundial (very rare, Zamfir 2005, 2007)

- (36) *de n-are hi fost el dobândit*  
 if not=COND.3SG be.INF be.PTCP he obtain.PTCP  
*domniia*  
 reign.DEF.ACC  
 ‘if he had not obtained the throne’ (CazV.1643: 40<sup>r</sup>, Zafiu 2016)

- (37) *când s-ară fi fost ospătând feciorii*  
 when CL.REFL.3PL=COND.3PL IRR be.PTCP feast.GER sons.DEF  
*lui Iov*  
 GEN Job  
 ‘when Job’s sons would have been [=were] feasting’ (SA.1683: 26<sup>v</sup>)

○ double compound **indicative** future perfect (rare, Zafiu 2016)

- (38) *de va fi fost și în știrea lor*  
 if IND.3SG be.INF be.PTCP also in knowledge.DEF.ACC their  
*și de acealea nu vor fi fost băgat*  
 and of these not IND.3PL be.INF be.PTCP put.PTCP  
*seama*  
 attention.DEF  
 ‘if they had known it also, and did not paid attention to it, (...)’ (Prav.1652: 401)

Taking stock of the empirical material presented above, we observe that the common characteristic of all the now-extinct forms is the distribution of the TAM features in the cluster, different from that of the periphrases which have diachronically survived.

The examples of type **(A)** (examples (21)–(32)) display a ‘be’ or a ‘want’ auxiliary showing inflection for mood and tense: e.g. *era* ((21), (28)) is inflected for the indicative imperfect; *fuseși* (22) / *fusease* (26) is inflected for the indicative pluperfect; *vrea* (‘want’) in the conditional periphrases ((27)–(30)) is also inflected for mood and tense. Interestingly, auxiliaries not only display synthetic inflection, but may also be periphrastic themselves (cf. (29) and (30) with ‘want’ in the compound past). Note also that the double compound indicatives in (33)–(34) can be analysed along the same lines, with ‘be’ in the compound past, followed by a non-finite form – a participle, (33), or a gerund, (34).

The cluster of the double compound forms of type **(B)** (examples (33)–(38)) contains the past participle form of *fi* (i.e. *fost*). As shown in the previous section, by extending Sigurdsson’s (2016) account of non-finite forms to Romanian, the temporal contribution of participial morphology cannot be denied. Therefore, this set of forms too contains an auxiliary verb with tense features.

Thus, what accounts for the demise of these two sets of periphrases is the richer feature matrix of the auxiliary component of the formation: structures whose auxiliary overtly encodes tense become extinct. In this respect, it is important to highlight the fact that the demise of these periphrases is not an issue which has to do with auxiliary selection (i.e. elimination of the ‘be’ auxiliary, preservation of the ‘have’ auxiliary). Besides ‘be’-based periphrases, ‘want’-based periphrases are preserved: ‘want’ is preserved in the structure of the future and of the presumptive, and the irrealis auxiliary *fi* (‘be’) is productive and extends its range (i.e. *fi*-based subjunctives emerge in an attested phase of Romanian, see Dragomirescu, Nicolae and Zafiu 2021: §8.2.2). Note also that of the three periphrastic subjunctives of old Romanian, all formed with a ‘be’ auxiliary – the perfect subjunctive, the epistemic gerundial subjunctive (see §3.2.1 above), and the double compound subjunctive (35) –, the first two are preserved in the passage to modern Romanian; this shows that the consolidation of analyticity is an on-going process in the history of the Romanian verbal morphology and that the disappearance of some periphrases is strictly determined by the featural make-up of auxiliary verbs.

### 3.3 Summarizing conclusions

Comparative and intralinguistic considerations have shown that the division of labour in the marking of TAM in the analytic cluster is the following: auxiliaries encode mood-related categories (indicative / conditional // realis / irrealis), while the lexical verb satisfies the T-related necessities. This analysis finds its confirmation in the diachrony of Romanian verbal periphrases: the periphrastic structures whose internal structure violates this division of labour are systematically eliminated from the TAM system of Romanian. This also indicates that **grammaticalization observes a pattern**, and the target of grammaticalization is **fixed**. The next section addresses this issue from a more theoretical perspective.

## 4. A FORMAL ACCOUNT AND ITS CONSEQUENCES

*Synchronically*, from a formal perspective, the analysis of Romanian auxiliaries as exponents of mood translates as their direct insertion/merger<sup>17</sup> in Mood<sup>0</sup> (39); valuation of tense is ensured by the movement of the lexical verb from the lexical domain to the inflectional domain – specifically to T (recall from §2 that in Romanian periphrastic structures the lexical verb also undergoes movement to the I-domain; this issue is taken up again below). For the double-auxiliary structures with the irrealis auxiliary *fi* (the future perfect, the perfect subjunctive, the presumptive periphrases, etc. – see §3.2.1 above), in Nicolae (2019a) I have proposed an analysis with split Mood<sup>0</sup> heads (distinguishing a head reserved for traditional mood distinctions, indicative *vs* subjunctive, and a head reserved for the realis/irrealis distinction)

(39)

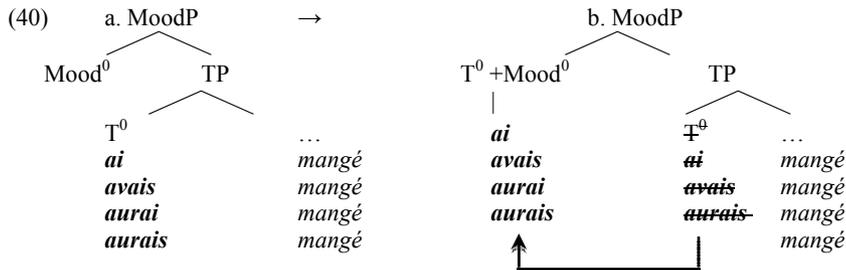
MoodP		
Mood <sup>0</sup>	TP	
	△	
<i>am</i> (IND.1SG)	<i>citit</i> (read.PTCP)	('I (have) read')
<i>voi</i> (IND.1SG)	<i>citi</i> (read.INF)	('I will read')
<i>aş</i> (COND.1SG)	<i>citi</i> (read.INF)	('I would read')

The direct consequence of this analysis is the inability of the auxiliary to undergo any other type of TAM variation. As the MoodP/Mood-field is the highest IP

<sup>17</sup> We assume that auxiliaries value the features of Mood<sup>0</sup> via external merge; valuation of features via external merge is implicitly permitted (Ian Roberts and David Pesetsky, p.c.) and explicitly employed (e.g. Rouveret 2012) in minimalist grammars. There are several possible alternatives to this model; for example, one may assume that auxiliaries merge in an Aux<sup>0</sup> projection, they are probed by the IP-related TAM heads and subsequently undergo movement to these heads (cf. Harwood 2014 for an analysis of English auxiliaries along these lines); however, besides considerations of simplicity (which support a more straightforward analysis like the one adopted here), as will be seen in the main text, the auxiliary's merger site appears to be a criterion of parameterization – which is a strong argument in favour of the analysis adopted here.

projection/field in Cinque's hierarchy, there are no superior positions in the IP for an auxiliary merged in Mood to raise to.

By contrast, consider the French auxiliaries discussed in §3.1 above (example (2)). As shown, French auxiliaries are involved in tense valuation and also undergo mood variation; this indicates a lower merge site for them, most probably a  $T^0$  head in the TP field (40a). Merger in a lower IP-head allows for subsequent head-movement to the Mood field (40b).



The lower merger site of French auxiliaries has consequences parallel to those found in Romanian: the fact that French allows for the merger of auxiliaries in the Tense field accounts for the existence of double compound forms, with the *surcomposé* auxiliary being merged in a lower T-head. Thus, while Romanian has a split Mood head (with different exponents), French allows for the existence of split T heads.

- (41)
- |           |   |                                       |                                    |                                       |              |
|-----------|---|---------------------------------------|------------------------------------|---------------------------------------|--------------|
| <p>a.</p> | <p><i>il</i><br/>he</p>                         | <p><i>a</i><br/>have.IND.PRES.3SG</p> | <p><i>eu</i><br/>have.PTCP</p>     | <p><i>terminé</i><br/>finish.PTCP</p> | <p>(Fr.)</p> |
|           |   |                                       |                                    |                                       |              |
| <p>b.</p> | <p><i>j'avais</i><br/>I-have.IND.IMPERF.1SG</p> | <p><i>eu</i><br/>have.PTCP</p>        | <p><i>envoyé</i><br/>send.PTCP</p> |                                       |              |
|           |   |                                       |                                    |                                       |              |

One important prediction of this analysis is the following: the lower the merger site of an auxiliary, the greater the number of periphrases in a given language. Of course, this raises the larger question of gaps in the system: why are some periphrases expected to exist simply not present in the language? Vincent (2015: 115–116) briefly takes up this question; he points to the progressive nature of periphrasis emergence, summarized by the following quote (which refers to the ungrammaticality of It. *venire* 'come' and *andare* 'go' passives in the compound past, but which is relevant for the general issue addressed here): "it seems as if the periphrasis has not yet reached this part of the paradigm, a fact which suggests that as new periphrases emerge they spread gradually rather than all at once into the pre-existing structural categories of the language in question" (Vincent 2015: 116). Thus, the view on auxiliaries sketched here, which is focused on the structural locus of a given auxiliary, needs to be complemented with the issue of 'extension', well synthesized by Vincent (2015).

The account formulated here also has consequences for the analysis of verb movement *from a comparative Romance perspective*. Recall from §2 that in Romanian (and Romance, in general), finite lexical verbs undergo movement from the lexical domain to the inflectional domain, a fact which has been established since the seminal work of Emonds (1978) and Pollock (1989). By adopting a rich Cinquean hierarchy, in the tradition

of Ledgeway and Lombardi (2005), Schifano (2015, 2018) sets up a detailed map of adverbials diagnosing IP positions and, on the basis of the occurrence of French and Romanian finite lexical verbs to the left of the adverbials *probably* (42), *already* (43) and *always* (44), formulates the conclusion that Romanian and French synthetic verbs display the same option: high verb movement of the lexical verb in the IP, i.e. movement Mood-field.

- (42) a. *Antoine confond probablement (\*confond) le poème.* (Fr.)  
 b. *Andrei greșește probabil (greșeste)<sup>18</sup> poemul.* (Ro.)  
 ‘A. is probably wrong with respect to the poem’
- (43) a. *Marie connaît déjà (\*connaît) cette histoire.* (Fr.)  
 b. *Maria cunoaște deja (cunoaște) povestea asta.* (Ro.)  
 ‘M. already knows this story’
- (44) a. *Antoine confond toujours (\*confond) ce genre de poèmes.* (Fr.)  
 b. *Andrei confundă mereu (mereu) acest tip de poeme.* (Ro.)  
 ‘A. always confuses this type of poems’

However, when it comes to periphrastic forms, there is a sharp contrast between Romanian and French, noticed since Alboiu and Motapanyane (2000): both the adverbial placement diagnostic ((45)–(46)) and the floating quantifier (47) diagnostic indicate that in Romanian the lexical verb undergoes movement to the I-domain (and clusters with the auxiliary), while in French only the auxiliary occupies a position in the I-domain, the lexical verb occupying a lower position, most probably on the edge of the (Voice-)v-domain.

- (45) a. *Il est probablement venu.* (Fr.)  
 b. *Probabil el a (\*probabil) venit probabil.* (Ro.)  
 ‘He probably came’
- (46) a. *Il a bien mangé.* (Fr.)  
 b. *El a (\*bine) mâncat bine.* (Ro.)  
 ‘He ate well’
- (47) a. *Les enfants ont tous vu (\*tous) de bons films.* (Fr.)  
 b. *Copiii au (\*toți) văzut toți filme bune.* (Ro.)  
 ‘The children have all seen good movies’

This contrast confirms the division of labour in TAM marking proposed above. In Romanian, there is a direct contribution of the lexical verb to the valuation of Tense, which determines the raising of the lexical verb to the T field in Romanian, a fact which explains, among other things, the clustering effects of the auxiliary and the lexical verb in Romanian. By contrast, in French, since auxiliaries are properly equipped with Tense feature (and, as proposed above, merge in a T-head), movement of the lexical verb to T is idle (and probably illicit from a technical perspective).

To sum up, the analysis of auxiliaries put forward here also accounts, among other things, for the differences between the level of verb raising in Romanian and French periphrastic forms, two languages whose option for synthetic verb raising is identical.

<sup>18</sup> In Romanian, the Adv-V order is a marked pattern derived via the movement of the adverb to the left periphery (Schifano 2014).

Finally, there is yet another piece of evidence in favour of the hypothesis that Romanian auxiliaries are exponents of mood and that grammaticalization systematically targets the Mood projection. Consider the set of examples in (48) which shows that with multiple auxiliary conditionals (including the double compound conditional in (48c)), the irrealis auxiliary ‘be’ already appears as bare the bare form *fi* since the earliest Romanian texts.

- (48) a. *Dumnezeu* *știe* *cine* *ar*  
 God know.IND.PRES.3SG who COND.3SG  
*fi* *încăput până acmu*  
 IRR fit.PTCP until now  
 ‘God knows who would have fitted until now’ (DÎ.1593: XCIII)
- b. *De ați fi având credință*  
 if COND.2PL IRR have.GER faith  
 ‘if you had faith’ (CT.1560–1: 158<sup>v</sup>)
- c. *când s-ară fi fost*  
 when CL.REFL.3PL=COND.3PL be be.PTCP  
*uspătând feciorii lui Iov*  
 feast.GER sons.DEFGEN Job  
 ‘when Job’s sons were feasting’ (SA.1683: 26<sup>v</sup>)

By contrast, with the subjunctive periphrases, the auxiliary *fi* (‘be’) is inflected for the **present subjunctive** in the earliest Romanian texts (witness the forms *fi* or *fi* in the examples below). The periphrasis in (49a) represents the basis for the perfect subjunctive, the one in (49b) is the basis of the epistemic (gerundial) subjunctive, and (49c) is the double compound subjunctive.

- (49) a. *s-au cădzut să fi*  
 CL.REFL.IMPERS=IND.3SG ought.to.PPLE SA be.SUBJ.1PL  
*dzis*  
 say.PTCP  
 ‘we should have said’ (CH.1717–23: 18<sup>v</sup>)
- b. *pentru ca să fi judecând la tot norodul*  
 for that SĂ be.SUBJ.3PL judge.GER to all people.DEF  
 ‘so they might be judging all the people’ (BB.1688: 340)
- c. *să fie fostu lăcuit și alții*  
 SĂ be.SUBJ.3SG be.PTCP live.PTCP also others  
 ‘(...) others had lived’ (ULM.~1725: 3<sup>v</sup>)

Reanalysis as the bare non-inflected *fi* (cf. (50) for the modern Romanian equivalents of (49a) and (49b)) occurs very late (in 19<sup>th</sup> c., Zafiu 2016: 19); it consists of the analogical levelling of these subjunctive paradigms through the elimination of the [PRESENT] tense feature of the auxiliary and its merger in a higher Mood<sup>0</sup> head (‘upwards’ grammaticalization); this instance of grammaticalization is very similar to that of the grammaticalization of Lat. HABERE as a compound past auxiliary, discussed in §3.1 above). Note also that the double compound forms in (48c) and (49c) disappeared altogether as an effect of the disappearance of *fost* ‘be.PTCP’ as an auxiliary (see §3.2.2 above).

- (50) a. *să fi zis* (OR: *fi*<sub>SUBJ.1PL</sub> → MR: *fi*<sub>NON-INFLECTED</sub>)  
 b. *să fi judecând* (OR: *fi*<sub>SUBJ.3PL(=3SG)</sub> → MR: *fi*<sub>NON-INFLECTED</sub>)

The diachronic development of the perfect subjunctive and of the epistemic (gerundial) subjunctive confirms the hypothesis that Mood<sup>0</sup> (/heads in the Mood field) is the locus of grammaticalization of Romanian auxiliaries.

## 5. CONCLUSIONS

The data analysed in the paper allows us to formulate the following **descriptive results**:

(i) In periphrases in which the lexical verb occurs as a non-finite form, Romanian auxiliaries encode mood values and are inserted in head positions from the Mood field of the I-domain; the non-finite morphology of the lexical verb contributes the tense component to the interpretation of the periphrasis. A more flexible Reichenbachian framework of tenses like the one formulated by Sigurdsson allows us to account for the interpretative properties of periphrases without sacrificing compositionality.

(ii) The mood-oriented nature of Romanian auxiliaries also acts as a diachronic “filter” on the formation of periphrases: the grammaticalization of auxiliaries in Romanian has systematically proceeded as reanalysis upwards along the hierarchy of functional projections, involving the bleeding of the tense (and, presumably, aspect) features of the grammaticalizing auxiliary and ultimately involving direct merge (insertion) in Mood<sup>0</sup> (/one of the Mood<sup>0</sup> heads, if an extended Cinquean hierarchy is adopted); periphrases whose feature matrix is richer did not historically survive.

We can also draw some **theoretical conclusions** from the data and phenomena analysed in the paper:

(i) It has been shown that, in Romanian, the grammaticalization of auxiliaries involves not only movement higher up the spine, but also the choice of a particular structural position. Thus, in the situation of repeated instances of grammaticalization, it appears that the same structural position is chosen in a given language; therefore, besides the well-known effects of grammaticalization (enumerated in §1), grammaticalization is a mechanism that creates identical structural patterns.

From this perspective, one can address the issue of *possible* and *impossible periphrases*, by answering the question of what counts as a well-formed analytic cluster in a given language and why certain periphrases become grammaticalized in a given language while others do not. The issue of *probability* is different, and Vincent’s (2015) caveat, cited in the previous section, should be kept in mind: not all potentially possible clusters become grammaticalized periphrases.

(ii) It has been also shown that there is a relation between the level of verb raising and the locus where auxiliaries merge. In Romanian, auxiliaries merge in a Mood<sup>0</sup> head and are exponents of mood; in double auxiliary structures, both auxiliaries are exponents of mood; and there is V-to-Mood raising (synthetic verbs). By contrast, we have argued that, in French, auxiliaries merge in a T<sup>0</sup> head and are exponents of tense and mood (upon undergoing head-movement to Mood<sup>0</sup>); in double auxiliary structures, one of the auxiliaries is an exponent of tense and the other is an exponent of mood and tense; and there is V-to-Mood raising (synthetic verbs). Thus, just like one can speak of a macro-parameter of V-raising – which distinguishes V-to-I languages (e.g. the Romance languages), V-to-C languages (e.g. Germanic V2 languages, Dinka Bor) and low verb movement languages (e.g. English, Latin), one can speak of an IP-internal micro-parameter of verb raising, which distinguishes mood-oriented languages like Romanian from tense-oriented languages like French. Of course, this hypothesis is speculative

for the time being, as it has been formulated on the basis of comparing two Romance languages (one of which, Romanian, was analysed in more detail), but we believe that it can lead to a better understanding of the Romance verbal morphosyntax in future research.

#### Acknowledgements

I have first advanced the hypothesis that Romanian auxiliaries are exponents of mood in my PhD dissertation (published as Nicolae 2019a); ever since then I have been gathering data and formulating arguments in favour of this idea. The CNCS – UEFISCDI postdoctoral grant PN III-P1-1.1-PD-2016-0870 gave me the opportunity to put all these together; I hereby acknowledge the support from this grant for the writing of this paper. I am grateful to Gabriela Pană Dindelegan, Mihaela Gheorghe, Adina Dragomirescu, Ștefania Costea, and Ionuț Geană for carefully reading the draft of the paper, to Adnana Boioc Apintei, Alexandra Cornilescu, Florica Dimitrescu, Adam Ledgeway, Martin Maiden, Mihaela Cecilia Popescu, J.C. Smith, Camelia Stan, and Rodica Zafiu, who discussed with me on various occasions some of the ideas presented here, and to the audiences at the following conferences and workshops, where parts of this paper have been presented: Occasional Romance Linguistics Seminar (Oxford 2020); “Annual International Conference of the English Department” (Bucharest 2019); “45<sup>th</sup> Cambridge Romance linguistics seminar” (Cambridge 2017); “Conferințele Centrului de Lingvistică Teoretică și Aplicată” (Bucharest 2017).

#### CORPUS OF OLD ROMANIAN TEXTS<sup>19</sup>

- BB.1688 *Biblia*. Ed.: *Biblia adecă Dumnezeiasca Scriptură a Vechiului și Noului Testament*, tipărită întâia oară la 1688 în timpul lui Șerban Vodă Cantacuzino, Domnul Țării Românești, Bucharest: Editura Institutului Biblic, 1977.
- CazV.1643 Varlaam, *Cazania*. Ed. by J. Byck. Bucharest: Editura Academiei, [s.a.], 1–506.
- CC<sup>1</sup>.1567 Coresi, *Tâlcul Evangheliilor*. Ed.: *Coresi, Tâlcul evangheliilor și molitvenic românesc*, ed. V. Drimba, Bucharest: Editura Academiei Române, 1998, 31–187 (Transylvania, Wallachian subdialect; Gheție and Mareș 2001: 115).
- CC<sup>2</sup>.1581 Coresi, *Evanghelie cu învățătură*. Ed. S. Pușcariu, Al. Procopovici: Diaconul Coresi, *Carte cu învățătură (1581)*, vol. I, *Textul*, Bucharest: Socec, 1914.
- CH.1717–23 Dimitrie Cantemir, *Hronicul vechimei a romano moldo-vlahilor*, ed. S. Toma, Bucharest: Minerva, 1999–2000, 1–274 (vol. I), 5–223 (vol. II).
- CPr.1566 Coresi, *Apostol*. Ed. I. Bianu, *Texte de limbă din secolul XVI, IV, Lucrul apostolesc tipărit de diaconul Coresi la 1563*, Bucharest: Cultura Națională, 1930.
- CS *Codex Sturdzanus*. Ed. Gh. Chivu, Bucharest: Editura Academiei Române, 1993, 237–300.  
CS<sub>VI</sub>.1590–602 – *Legenda lui Sisinie*.  
CS<sub>VII</sub>.1590–602 – I. *Omilia de Paști (Să neștire buru creștiru)*.
- CT.1560–1 Coresi, *Tetraevanghel*. Ed.: *Tetraevanghelul tipărit de Coresi. Brașov 1560–1561*, comparat cu *Evangheliarul lui Radu de la Mănăcești. 1574*, ed. F. Dimitrescu, Bucharest: Editura Academiei, 1963. (Wallachian subdialect, Brașov)
- CV.1563–83 *Codicele Voronețean*. Ed. M. Costinescu, Bucharest: Editura Academiei Române, 1981, 229–400.
- DÎ *Documente și însemnări românești din secolul al XVI-lea*, text stabilit și indice de Gh. Chivu, M. Georgescu, M. Ioniță, Al. Mareș, Al. Roman-Moraru, Bucharest: Editura Academiei Române, 1979.
- MC.1620 M. Moxa, *Cronograf*. Ed.: Mihail Moxa, *Cronica universală*, ed. G. Mihăilă, Bucharest: Minerva, 1989, 95–223.

<sup>19</sup> This represents a subset of the old Romanian texts used for *The Syntax of Old Romanian* (2016). The dating and the citation conventions for the Syntax of Old Romanian, also employed here, have been established by Emanuela Timotin.

- NL.~1750–66 Ion Neculce, *Letopiseșul*. Ed.: Ion Neculce, *Letopiseșul Țării Moldovei și O samă de cuvinte*, ed. I. Iordan, Bucharest: Editura de Stat pentru Literatură și Artă, ed. a II-a, 1959, 31–388.
- NT.1648 *Noul Testament*. Ed. Alba Iulia: Reîntregirea, 1998.
- PO.1582 *Palia de la Orăștie*. Ed. V. Pamfil, Bucharest: Editura Academiei, 1968.
- Prav.1652 *Îndreptarea legii. 1652*, ed. Colectivul pentru vechiul drept românesc condus de acad. A. Rădulescu, Bucharest: Editura Academiei, 1962 (*Adunarea izvoarelor vechiului drept românesc scris*, 7), 33–631.
- SA.1683 Ioan Zoba din Vinț, *Sicriul de aur*. Ed. A. Goția, Bucharest: Minerva, 1984, 5–179.
- Sind.1703 *Sindipa*. Ed. M. Georgescu, Bucharest: Minerva, 1996 (*Cele mai vechi cărți populare în literatura română*, 1), 249–315.
- ȘT.1644 *Șapte taine a besearecii, Iași, 1644*. Ed. I. Mazilu, Iași: Editura Universității „Alexandru Ioan Cuza”, 2012, 173–259.
- ULM.~1725 Grigore Ureche, *Letopiseșul Țării Moldovei*. Ed. P.P. Panaitescu, Bucharest: Editura de Stat pentru Literatură și Artă, 1955, 57–210.

#### REFERENCES

- Alboiu, G., V. Motapanyane, 2000, “The generative approach to Romanian grammar: An overview”, in: V. Motapanyane (ed.), *Comparative Studies in Romanian Syntax*, Amsterdam, Elsevier, 1–48.
- Anderson, G.S., 2006, *Auxiliary Verb Constructions*, Oxford, Oxford University Press.
- Avram, L., 1999, *Auxiliaries and the Structure of Language*, Bucharest, Editura Universității din București.
- Avram, L., V. Hill, 2007, “An irrealis BE auxiliary in Romanian”, in: R. Aranovich (ed.), *Split Auxiliary Systems: A Cross-linguistic Perspective*, Amsterdam, John Benjamins, 47–64.
- Bertinetto, P.M., M. Squartini, 2016, “Tense and aspect”, in: A. Ledgeway, M. Maiden (eds), *The Oxford Guide to the Romance Languages*, Oxford, Oxford University Press, 939–953.
- Caragiu-Marioțeanu, M., 1969, “Verbul”, in: I. Coteanu (ed.), *Istoria limbii române*, vol. II, Bucharest, Editura Academiei, 254–279.
- Cinque, G., 1999, *Adverbs and Functional Heads*, Oxford, Oxford University Press.
- Coene, M., L. Tasmowski, 2006, “On the Balkan-Slavic origins of the Romanian conditional”, *Revue roumaine de linguistique*, LI, 2, 321–340.
- Comrie, B., 1985, *Tense*, Cambridge, Cambridge University Press.
- Cornilescu, A., 2000, “The double subject construction in Romanian”, in: V. Motapanyane (ed.), *Comparative Studies in Romanian Syntax*, Amsterdam, Elsevier, 83–133.
- Cotfas, M.A., 2011, *On the syntax of the Romanian subjunctive. Control and obviation*, Bucharest, University of Bucharest, PhD dissertation.
- D’hulst, Y., M. Coene, L. Avram, 2004, “Syncretic and analytic tenses in Romanian. The Balkan setting of Romance”, in: O. Mišeska Tomić (ed.), *Balkan Syntax and Semantics*. Amsterdam, John Benjamins, 355–374.
- Densusianu, O., 1961, *Istoria limbii române*, ed. by J. Byck, Bucharest, Editura Științifică.
- Dimitrescu, F. (ed.), 1978, *Istoria limbii române: fonetică, morfosintaxă, lexic*, Bucharest, Editura Didactică și Pedagogică.
- Dobrovie-Sorin, C., 1994, *The Syntax of Romanian*, Berlin, Mouton de Gruyter.
- Dragomirescu, A., A. Nicolae, R. Zafiu, 2021, “The loss of analyticity in the history of Romanian verbal morphology”, *in press*.
- Emonds, J., 1978, “The verbal complex V’–V in French”, *Linguistic Inquiry*, 9, 151–175.
- Frâncu, C., 2009, *Gramatica limbii române vechi*, Iași, Casa Editorială Demiurg.
- GALR 2008 – Guțu Romalo, V. (ed.) *Gramatica limbii române*. vol. I – *Cuvântul*; vol. II – *Enunțul*, Bucharest, Editura Academiei Române.
- Geană, I., 2013, “Teaching the Romanian conditional to students of other languages”, *Procedia Social and Behavioral Sciences*, 70, 1232–1237.
- Giacalone Ramat, A., 2000, “On some grammaticalization patterns for auxiliaries”, in: J.C. Smith, D. Bentley (eds), *Historical Linguistics 1995: selected papers from the 12<sup>th</sup> International*

- Conference on Historical Linguistics, Manchester, August 1995. V.1. General Issues and Non-Germanic Languages*, Amsterdam, John Benjamins, 125–154.
- Giorgi, A., F. Pianesi, 1997, *Tense and Aspect: From Semantics to Morphosyntax*, New York, Oxford University Press.
- Giurgea, I., 2011, “The Romanian verbal cluster and the theory of head movement”, in: J. Herschensohn (ed.), *Romance linguistics 2010. Selected Papers from the 40<sup>th</sup> Linguistic Symposium on Romance Linguistics (LSRL), Seattle, Washington, March 2010*, Amsterdam, John Benjamins, 271–286.
- GLR 1966 – Graur, Al., M. Avram, L. Vasiliu, (eds) *Gramatica limbii române*, Bucharest, Editura Academiei.
- Guțu Romalo, V., 1962, “Forme verbale compuse”, *Studii și cercetări lingvistice*, XIII, 2, 191–199.
- Harris, M., 1982, “The ‘past simple’ and ‘present perfect’ in Romance”, in: M. Harris, N. Vincent (eds), *Studies in the Romance Verb*, London, Croom Helm, 42–70.
- Harwood, W. 2014. “Rise of the Auxiliaries: a case for auxiliary raising vs. affix lowering”, *The Linguistic Review*, 31, 2, 295–362.
- Heine, B., 1993, *Auxiliaries. Cognitive Forces and Grammaticalization*. New York, Oxford, Oxford University Press.
- Kuteva, T., B. Heine, B. Hong, H. Long, H. Narrog, S. Rhee, 2019, *World Lexicon of Grammaticalization*, second edition, extensively revised and updated, Cambridge, Cambridge University Press.
- Ledgeway, A., 2011, “Grammaticalization from Latin to Romance”, in: B. Heine, H. Narrog (eds), *The Oxford Handbook of Grammaticalization*, Oxford, Oxford University Press, 717–726.
- Ledgeway, A., 2012, *From Latin to Romance: Morphosyntactic Typology and Change*, Oxford, Oxford University Press.
- Ledgeway, A., 2015, “Romance auxiliary selection in light of Romanian evidence”, in: G. Pană Dindelegan, R. Zafiu, A. Dragomirescu, I. Nicula, A. Nicolae, L. Esher (eds), *Diachronic Variation in Romanian*, Newcastle upon Tyne, Cambridge Scholars Publishing, 3–34.
- Ledgeway, A., 2016, “Functional categories”, in: A. Ledgeway, M. Maiden (eds), *The Oxford Guide to the Romance Languages*, Oxford, Oxford University Press, 761–771.
- Ledgeway, A., 2018, “Parallels in clausal and nominal structures: Romanian clitic placement”, in: G. Pană Dindelegan, A., I. Nicula, A. Nicolae (eds), *Comparative and Diachronic Perspectives on Romance Syntax*, Newcastle upon Tyne, Cambridge Scholars Publishing, 23–52.
- Ledgeway, A., A. Lombardi, 2005, “Verb movement, adverbs, and clitic positions in Romance”, *Probus* 17, 77–101.
- Ledgeway, A., S. Cruschina, 2016, “The structure of the clause”, in: A. Ledgeway, M. Maiden (eds), *The Oxford Guide to the Romance Languages*, Oxford, Oxford University Press, 556–574.
- Lehmann, C., 1995, *Thoughts on Grammaticalization*, München, Lincom.
- Manoliu, M., 1961, “Remarks on the grammaticizing of verbs in the Romance languages”, *Revue de linguistique*, VI, 2, 217–238.
- Marta, M., 1978, “Verbele auxiliare”, in: F. Dimitrescu (ed.), *Istoria limbii române. Fonetică, morfosintaxă, lexic*, Bucharest, Editura Didactică și Pedagogică, 292–298.
- Mithun, M., 1999, *The Languages of Native North America*, Cambridge, Cambridge University Press.
- Nicolae, A. 2015. *Ordinea constituenților în limba română: o perspectivă diacronică*. Bucharest, Editura Universității din București.
- Nicolae, A., 2019a, *The Licensing of Nominal and Verbal Ellipsis in Romanian*, Bucharest, Editura Universității din București [revised version of the PhD dissertation *Types of Ellipsis in Romanian. The Interpretation of Structures Containing Ellipsis Sites and the Syntactic Licensing of Ellipsis*, 2013].
- Nicolae, A., 2019b, *Word Order and Parameter Change in Romanian: A Comparative Romance Perspective*, Oxford, Oxford University Press.
- Niculescu, D., 2013, *Particularități sintactice ale limbii române din perspectivă tipologică. Gerunziul*, Bucharest, Editura Muzeului Național al Literaturii Române.
- Palmer, F.R., 2001, *Mood and Modality*, 2nd edition, Cambridge, Cambridge University Press.
- Pană Dindelegan, G., 2013, “Non-finite verb forms and non-finite clauses. General features”, in: G. Pană Dindelegan (ed.), *The Grammar of Romanian*, Oxford, Oxford University Press, 204–211.
- Papahagi, C., 2014, “Convergent grammaticalization of some Romance auxiliaries”, *Revue roumaine de linguistique* LIX, 4, 317–334.

- Pinkster, H., 1987, "The strategy and chronology of the development of future and perfect tense auxiliaries in Latin", in: M. Harris, P. Ramat (eds), *The Historical Development of Auxiliaries*, Berlin, New York, Amsterdam, Mouton de Gruyter, 193–223.
- Pollock, J.-Y., 1989, "Verb movement, Universal Grammar, and the structure of IP". *Linguistic Inquiry* 20, 365–424.
- Popescu, C.M., 2013, *Viitorul și condiționalul în limbile romanice. Abordare morfosintactică și categorizare semantică din perspectivă diacronică*, Craiova, Editura Universitaria.
- Popescu, C.M., 2019, "Din nou despre formele de condițional din limba română. Schiță de analiză și categorizare", in: A. Chircu, M. Aldea (eds), *Din dragoste de dascăl și de voroavă. Omagiu doamnei profesor Elena Dragoș, la aniversare*, Cluj Napoca: Casa Cărții de Știință, 242–251.
- Ramat, P., D. Ricca, 2016, "Romance. A typological approach", in: A. Ledgeway, M. Maiden (eds), *The Oxford Guide to the Romance Languages*, Oxford, Oxford University Press, 50–62.
- Reichenbach, H., 1947, *Elements of Symbolic Logic*, New York, MacMillan Co.
- Roberts, I., 2013, "Some speculations on the development of the Romance periphrastic perfect", *Revue roumaine de linguistique* LVIII, 1, 3–30.
- Roberts, I., A. Roussou, 2003, *Syntactic Change. A Minimalist Approach to Grammaticalization*, Cambridge, Cambridge University Press.
- Rosetti, A., 1938, *Istoria limbii române. I. Limba latină*, Bucharest, Fundația pentru literatură și artă „Regele Carol II”.
- Rouveret, A., 2012, "VP ellipsis, phases and the syntax of morphology", *Natural Language & Linguistic Theory*, 30, 3, 897–963.
- Schifano, N., 2014, "(Un)marked patterns of verb-movement: the case of Romanian", in: R. Zafiu, A. Dragomirescu, A. Nicolae (eds), *Limba română: Sincronie și diacronie în studiul limbii române. I. Gramatică. Fonetică și fonologie. Istoria limbii române*, Bucharest, Editura Universității din București, 191–201.
- Schifano, N., 2015, "The paradigmatic instantiation of TAM. A novel approach to romance verb-movement", in: E. O. Aboh (ed.), *Romance Languages and Linguistic Theory 2013. Selected Papers from 'Going Romance' Amsterdam 2013*, Amsterdam, John Benjamins, 83–102.
- Schifano, N., 2018, *Verb Movement in Romance: A Comparative Study*, Oxford, Oxford University Press.
- Sigurdsson, H.Á., 2016, "The split T analysis", in: K. M. Eide (ed.), *Finiteness Matters: On Finiteness-Related Phenomena in Natural Languages*, Amsterdam, John Benjamins Publishing Company, 79–92.
- Sigurdsson, H.Á., J. Maling, 2012, "Silent heads", in: L. Brugè, A. Cardinaletti, G. Giusti, N. Munaro, C. Poletto (eds), *Functional Heads. The Cartography of Syntactic Structures*, vol. 7, Oxford, Oxford University Press, 368–378.
- Stati, S., 1965, "Verbul", in: Al. Graur (ed.), *Istoria limbii române*, vol. I, Bucharest, Editura Academiei, 166–197.
- Stowell, T., 1982, "The tense of infinitives", *Linguistic Inquiry* 13, 561–570.
- Timotin, E., 2016, "Presenting the corpus: Typologizing, dating, and locating the texts", in: G. Pană Dindelegan (ed.), *The Syntax of Old Romanian*, Oxford, Oxford University Press, 1–7.
- Titova, V.P., 1959, "O problemă litigioasă a morfologiei istorice românești (originea condiționalului)", *Studii și cercetări lingvistice*, X, 4, 561–571.
- Vincent, N., 2015, "Compositionality and change", in: C. Bower, B. Evans (eds), *The Routledge Handbook of Historical Linguistics*, Oxon, New York, Routledge, 103–123.
- Vincent, N., 2016, "A structural comparison of Latin and Romance", in: A. Ledgeway, M. Maiden (eds), *The Oxford Guide to the Romance Languages*, Oxford, Oxford University Press, 37–49.
- Zafiu, R., 2013, "Mood, tense and aspect", in: G. Pană Dindelegan (ed.), *The Grammar of Romanian*, Oxford, Oxford University Press, 24–65.
- Zafiu, R., 2016, "The syntax of moods and tenses", in: G. Pană Dindelegan (ed.), *The Syntax of Old Romanian*, Oxford, Oxford University Press, 14–52.
- Zafiu, R., 2017, "The auxiliary of the Romanian conditional: semantic and functional arguments concerning the reconstruction of a disputed grammaticalization process", *Diacronia* 6, 1–20.
- Zamfir, D.-M. 2005, 2007. *Morfologia verbului în dacoromâna veche (secolele al XVI-lea – al XVII-lea)*. I (2005), II (2007), Bucharest, Editura Academiei Române.