OBJECT PRONOUNS IN THE EVOLUTION OF ROMANIAN: A BIOLINGUISTIC PERSPECTIVE

ANNA MARIA DI SCIULLO, STANCA SOMESFALEAN[1]

Abstract. We examine pronominal objects in Old Romanian and show that the fluctuation in their position (pre-/post-verbal) and in their form (clitic/strong pronoun) is the result of the Directional Asymmetry Principle (DAP), a complexity-reducing principle proposed in Di Sciullo (2011), according to which language evolution is symmetry breaking. We show that DAP is sensitive to both derivational and representational complexity. Under its effects, on grounds of derivational complexity reduction, Romanian lost the discourse-driven verb movement that yielded enclisis. On grounds of representational (sensori-motor) complexity reduction, Romanian lost the use of strong pronouns in contexts that now only allow clitics. Thus, a fluctuating phase in the evolution of pronominal objects is followed by a phase where a preponderant use is attested (i.e. proclitics in Modern Romanian). We confirm previous findings on the diachronic development of the Romanian DP under the effects of DAP, showing the role of complexity reduction in language change.

Keywords: Old Romanian, determiners, symmetry-breaking, complexity.

1. ISSUE

In Old Romanian (OR, 16th–18th century), object personal pronouns can be post-verbal, (1a), (2a), (3a), and pre-verbal (4a), (5a), with what looks like[2] a strong preference for a post-verbal positioning for both clitics and strong pronouns. In contrast, Modern Romanian (MR) manifests an exclusive proclitic use in the same contexts (1b), (2b), (3b), (4b), (5b).

[1] Anna Maria Di Sciullo, Département de linguistique, Université du Québec à Montréal, di_sciullo.anne-marie@uqam.ca; Stanca Somesfalean, Département de linguistique, Université du Québec à Montréal, Somesfalean.stanca@uqam.ca. This work is supported in part by funding from the Social Sciences and Humanities Research Council of Canada to the Major Collaborative Research on Interface Asymmetries, grant number 214-2003-1003, and by funding from the FQRSC on Dynamic Interfaces, grant number 137253.

[2] In the corpus we examined. It should be noted that, given the timeline, OR has also been referred to as EMR ('Early Modern Romanian') in Alboiu et al (2004), a.o.

(1) a. *cu slavă priimişi mine* […] (Coresi, 137r)
with glory received PRON.ACC.1SG.
b. *cu slavă mă primişi* (MR)
with glory CL.ACC.1SG. received
'With glory you have received me.'

(2) a. *Doamne, cântec nou cânt ţie,* […]. (Coresi, 274r)
Lord, song new sing PRON.DAT.2SG
b. *Doamne, cântec nou îţi cânt* […]. (MR)
Lord, song new CL.DAT.2P.SG. sing
'Lord, a new song I sing to you.'

(3) a. […] *fără dereptate mânară-mă* […] (Coresi, 238v)
without reason led-CL.ACC.1SG.
b. […] *fără dereptate mă mânară* (MR)
without reason CL.ACC.1SG. led
'Without reason (they) led me'

(4) a. *nu mă ruşinez când caut* […] (Coresi, 231v)
not CL.REFL.1SG. embarrass when search
b. *nu mă ruşinez când caut* […] (MR)
not CL.REFL.1SG. embarrass when search
'(I) am not ashamed when (I) search'

(5) a. *Şi acestu sfat îi da* […] (Amiras, 253v)
and this advice CL.DAT.3SG. give
b. *Şi acest sfat îi dădea* […] (MR)
and this advice CL.DAT.3SG. give
'And he gave him this piece of advice'

We assume that linguistic variation, including diachronic change, is dependent on the effects of feature valuation, which may vary between languages as well as in the course of the development of a given language. The fluctuation in word order between pre- and post- positions for a given category in a projection chain is a function of the availability of both a valued and an unvalued feature F, giving rise to movement if F is unvalued, and not otherwise. We interpret this choice as a point of symmetry and we explore the effect of factors that are external to the Language Faculty on the reduction of complexity brought about by this choice, as well as its gradual elimination over time. Specifically, we examine the fluctuation in the position of the object pronoun in OR illustrated above, and propose that it is an instance of the Directional Asymmetry Principle (DAP), a complexity-reducing principle proposed in Di Sciullo (2011) and linked to the symmetry-breaking laws active in the natural world (Lewontin 1970, 1974; Graham, Freeman & Emlen 1993; Palmer, 2004, a.o.). A biolinguistic explanation for a diachronic phenomenon has the advantage of further bridging the explanatory gap between language development and biology.

2. AN INSTANCE OF DIRECTIONAL ASYMMETRY PRINCIPLE

Symmetry breaking is part of the natural laws affecting the evolution of the shape of biological organisms. Seen as a dynamic force external to the Language Faculty, it provides a biolinguistic explanation for language variation and evolution with respect to the position

of a head and its dependent. A head-dependent structure includes a prominent element, the head (H). H can be to the right or to the left of its dependent (XP), as in (6), which depicts the position of H with respect to its sister for simplicity; however, the position of H with respect to XP is set in an extended projection chain of H. It has been observed that both (6a) and (6b) are attested at some stage of the historical development of languages, while in a subsequent stage only one of the two options is available. In order to account for this phenomenon, the Directional Asymmetry Principle is formulated in Di Sciullo (2011) as in (7), where symmetry breaking applies to the availability of structures such as (6a) or (6b) in the course of language diachronic development.

(6) a. b.

(7) *Directional Asymmetry Principle* (DAP)
Language evolution is symmetry breaking:
fluctuating asymmetry is followed by directional asymmetry.
Fluctuating asymmetry (random left or right positioning of a head) *> Directional asymmetry* (exclusive left or right positioning of a head).

Di Sciullo (2011) provides evidence that DAP makes correct predictions for language historical evolution on the basis of the development of possessive pronouns from Genitives in the evolution of Classical Greek to Modern Greek and Greek dialects, as well as in the evolution of Latin to Italian and Italian dialects. The predictions of DAP have also been shown to cover the development of prepositions in Indo-European languages in Di Sciullo & Nicolis (2013), and the development of the definite determiner in Romanian in Di Sciullo & Somesfalean (2013).

According to DAP, language evolution is symmetry breaking. Symmetry introduces choice-points, thus instability in a system that seeks to eliminate it in order to reinstate an asymmetrical stable state. The effects of symmetry breaking in language historical development are legible at the sensory-motor interface. As predicted, the fluctuating stage of pronoun position in OR is followed by a phase where a preponderant location is attested: in MR the predominant use of the object personal pronoun clitic is preverbal, i.e. proclitic[3].

The OR use of enclitics, the development of Differential Object Marking (DOM), and the rise of Clitic Doubling (CD) constructions are all phenomena that have been addressed and discussed in recent works (Zafiu 2014; Hill 2013; Chiriacescu & Von Heusinger 2009; Alboiu & Hill 2012; Von Heusinger & Onea Gaspar 2008, see also Hill & Mardale 2017, 2021, a.o.). We consider some of these facts in a broader perspective, as instances of language evolution processes. The notion of language evolution goes beyond the classical notion of language change and grammaticalization (Roberts & Roussou 2003) by incorporating recent results from evolutionary developmental biology. This incorporation has both descriptive and explanatory advantages over classical notions of

[3] While post-verbal strong pronouns exist in MR, they are part of DOM/CD constructions, i.e. the presence of the clitic is obligatory.

language change and grammaticalization. The descriptive advantage is that fluctuating stages are predicted to occur and can be described systematically. The explanatory advantage is that questions such as why languages change and why grammaticalization exists can be addressed on the basis of the existence of general laws governing the development and evolution of biological form.

3. ANALYSIS

3.1. Enclisis in OR

Enclisis is a generalised characteristic of OR, evidenced not only with pronominal objects, as seen in examples (1a), (2a), (3a), but also with verbal clitics, i.e. auxiliaries, as in (8a) below, and adverbial clitics. While we mention the other constructions marginally in our analysis, this paper is concerned with the behaviour of pronominal objects only.

(8) a. ***ales-au*** *12 oameni de ţară* (Amiras, 249r)
chosen-AUX.2PL. 12 men of country
b. ***au*** ***ales*** *12 oameni de ţară* (MR)
AUX.2PL. chosen 12 men of country
'They have chosen 12 countrymen'

The massive use of enclitics in OR may seem like instances of Wackernagel's law, very strong in Slavic languages and assumed to have greatly influenced the written Romanian language (Frâncu 2009). However, Alboiu & Hill (2012) and Alboiu et al (2014) argue that Wackernagel's law is not active in OR, given the fluctuation in the placement of clitics in OR, i.e. clitics are not consistently in second position (cf. ex (9), from Alboiu & Hill 2012); clitics may also be preverbal (cf. ex. (10) from Alboiu & Hill 2012), and finally, the rise of proclitics is independent of Wackernagel's law. They conclude that the enclisis that characterises OR is discourse-driven. For more details and examples, see these cited works.

(9) *cu pizmă huluiia-**l*** (Frâncu 2009:277)
with hate cursed-CL.3SG.M.
'cursed him with hate'
(10) ***să*** *vedea că după acest război fără noroc* […] (Ureche/Panaitescu 1958 :115)
CL.REFL saw that after this war without luck
'one could see that after this war without luck […]'

Our focus in this paper is a particular case of the enclisis that characterises OR, namely of pronominal objects. Moreover, OR allows for both preverbal and postverbal pronominal objects, a fluctuation thus coexists at a given moment in the evolution of Romanian, illustrated in (11) below. Interestingly, while the pronominal object enclisis is wide-spread in OR – for both clitics and strong pronouns, the tendency in MR is towards the use of clitic objects, exclusively preverbal. Object strong pronouns, when used, can only be doubling constituents (i.e. the presence of the preverbal clitic is necessary for CD). This is illustrated in (12).

(11) a. *pădzească* ***tine*** *cel mare domnul şi*
protect PRON.ACC.2SG. the great lord=DEF and
te *alduiască* […] (Frag.Tod. 4r)
CL.ACC.2SG. bless

b. ***te*** *pădzească* ***pe*** ***tine*** *cel mare domnul şi*
CL.ACC.2SG. protect DOM you the great lord.DEF. and
te *alduiască* (MR)
CL.ACC.2SG. bless
'May the great Lord protect you and bless you.'

(12) From –CD in OR to +CD in MR

Old Romanian	**Modern Romanian**	**English**
primiişi ***mine*** receive PRON.ACC.1SG.	***mă*** *primişi (pe mine)* CL.ACC.1SG. receive (DOM PRON.ACC.1SG.)	'you received **me**'
cânt ***ţie*** sing PRON.DAT.2SG.	***îţi*** *cânt (ţie)* CL.DAT.2SG. sing (PRON.DAT.2SG.)	'I sing **to you**'
*mânară-****mă*** led-CL.ACC.1SG.	***mă*** *mânară* CL.ACC.1SG. led	'they led **me'**

We provide an account for the observed fluctuation of the position of pronominal objects in OR and of the MR tendency towards proclisis. This reinforces previous findings about the same trend in the evolution of the Romanian DP, as shown in Di Sciullo & Somesfalean (2013). Specifically, Di Sciullo and Somesfalean (2013) show that MR is in a phase of directional asymmetry with respect to the behaviour of the Gen/Dat forms of the definite determiner. Thus, while Nom/Acc forms of the definite determiners have reached a phase of directional asymmetry (i.e. enclisis), the Gen/Dat forms are still allowing fluctuation, with a strong tendency towards proclisis. See Di Sciullo & Somesfalean (2013) for further details and examples.

Romanian constructions with definite determiners allowed us to confirm the prediction of DAP, i.e. that a directionality is observed in the evolution of the language from an older stage to a modern stage: while the fluctuating asymmetry is brought about by a choice in the valued or unvalued properties of Case features in Old Romanian, the symmetry brought about by these choice points is gradually eliminated in the modern stage of the language, where eventually only one of the two options remains available.

Based on these conclusions, we expect DAP to be active also in the evolution of Romanian pronominal object constructions, with the effect of reducing complexity. In what follows we will appeal to two notions of complexity proposed in Di Sciullo (2012):
i) Internal complexity (I-complexity) is derived by the operations of the Language Faculty and is measured in terms of length of derivations. Thus, a derivation of a linguistic expression that involves fewer operations will be preferred over a more 'costly' derivation on grounds of computational efficiency.
ii) External complexity (E-complexity) is legible at the sensori-motor (SM) interface and is calculated in terms of density of representations, which is not limited to string linear

measure, but includes supra-segmental material such as tone, as discussed in Di Sciullo (2005), and stress. Thus, a representation that contains less SM material will be less 'costly' on grounds of representational efficiency.

We propose that the change in the pattern of pronominal objects from OR to MR is the result of a bi-fold complexity reduction mechanism, namely the reduction of both I-complexity, which is basically derivational, and the reduction of E-complexity, which is basically representational. We now turn to the structure of the constructions under investigation and discuss their complexity. We will first discuss I-complexity (henceforth, derivational complexity) and then E-complexity (henceforth, representational complexity).

3.2. Derivational complexity

We assume that pronouns are determiners, as in Postal (1969), and that clitics and strong pronouns differ in their level of complexity, as in Kayne (1991, 1994); Uriagereka (1995); Cardinaletti & Starke (1999); Sportiche (1999); Di Sciullo (1990); Di Sciullo & Aguero (2008), a.o. More specifically, we assume, with Uriagereka (1995), that pronominal clitics, as anchors on new information, are in the head of a functional projection at the periphery of IP. As mentioned above, we assume that movement is driven by feature checking/valuation (cf. Chomsky 1995, 2000, 2001; Pesetsky and Torrego 2006; a.o.). We will not discuss the feature checking/valuation in the derivations, as the identification of the features checked/valued is orthogonal to our discussion.

Thus, in a construction such as (13) below, the clitic is in (Head,FP) and the proclitic positioning of the object pronoun follows, as illustrated in (14).

(13) *[…] Costantin Ciobanul […], de altă parte,*
Constantin Shepherd.DEF on other side
îl ***sfătuia*** *să* *vie […]* (Amiras, 253v)
CL.ACC.3SG.M. advise SUBJ come
'Constantin The Shepherd, on the other hand, advised him to come back'

(14) [$_{FP}$ [$_{F}$ îl [$_{IP}$ [$_{I}$ sfătuia … [$_{vP}$ [$_{V}$ s~~fătuia~~ [$_{CP}$ …

We illustrate the strong pronoun object example (15) with the structure in (16) below.

(15) *[…] cu slavă priimişi* ***mine***. (Coresi, 137r)
with glory received PRON.ACC.1SG.
'With glory you received me.'

(16) [$_{IP}$ [$_{I}$ priimiși [$_{vP}$ [$_{V}$ ~~primișii~~ [$_{DP}$ mine

However, as mentioned above, OR also presents evidence of postposed clitic constructions in declaratives, as in (17) below.

(17) a. *Domnul fereaşte-**te*** *de* *tot răul.* (Coresi, 248v)
Lord.DEF protects-CL.ACC.2SG. from all harm
'The Lord protects you from all harm.'
b. *Domnul* ***te*** *fereşte* *de* *tot răul.* (MR)
Lord.DEF CL.ACC.2SG protects from all harm
'The Lord protects you from all harm.'

We analyse these as instances of verb movement, in the sense of Emonds (1978); Pollock's (1989), a.o., a movement that is still active in MR, but only in imperative and gerund constructions, such as (18), illustrated in (19) with a structure based on Isac (1998).[4]

(18) *Fereşte-**te*** *de soare!* (MR)
protect.IMP.2SG-CL.ACC.REFL.2SG from sun
'Protect yourself from the sun!'

(19) [$_{MoodOp}$ [$_{M}$ fereşte [$_{FP}$ [$_{F}$ te [$_{MP}$ [$_{M}$ ~~fereşte~~ [$_{vP}$ [$_{V}$ ~~fereşte~~ [$_{PP}$ …

The question that immediately arises is what drives generalized V-to-C in OR. We assume that V-to-C in OR is discourse-related, as in Alboiu & Hill (2012) and Alboiu et al (2014). Adopting a cartographic approach (Rizzi 1997), the authors analyse V>clitic order (i.e. all instances of enclisis in OR : verb>auxiliary clitics, V>adverbial clitics, V>pronominal clitics,) as the result of verb movement to a focus head, triggered for discourse purposes, an optional movement that depends on whether certain discourse features (i.e. a focus operator feature optionally associated with the CP field) are present in the derivation. In their analysis, four types of focus operators (following Hohle 1992; Krifka 2007; Richter & Mehlhorn 2006) are present in OR and operator feature checking is satisfied either by constituent movement to (Spec,FocP) – for instance, a *wh*-phrase – or by head-to-head movement of the verb to Foc – in which case the operator is null. Thus, V>clitic order obtains when the verb moves higher than the tense-bearing projection T, to Foc, for checking emphatic focus (EF) or verum focus (VF) features. This analysis predicts that the V>clitic order would be optional in declaratives, as in (20), obligatory in yes/no questions, as in (21), and excluded in *wh*-questions, as in (22).

(20) a. *afla-**să*** *această tară […]* (Ureche/Panaitescu 1958:67)
happened-CL.REFL this country
'This country happened to…'
b. ***să*** *vedea* *că* *după*
CL.REFL.3 saw that after
acest *război* […] (Ureche/Panaitescu 1958:115)
this war
'You could see that after this war…'

(21) *Cunoşti-**mă*** *pre* *mine,* *au ba?* (Neculce/Iordan 1955:120)
know-CL.ACC.1SG. DOM PRON.ACC.1SG. or not
'Do you recognize me or not ?'

(22) *Cum* ***ar*** *hi împăratu* *să* *hie drag tuturora?* (Costin/Panaitescu 1979:33)
how AUX. be king.DEF SUBJ be dear all.DAT
'How should the king be to be loved by all?'

[4] In Isac (1998, 2015) the (Modern) Romanian verb moves to Mood projection, while the subjunctive particles, imperatives and gerunds move to a higher MoodOp projection in order to check strong irrealis features.

Thus, the partial structure of an OR declarative such as (20a), for instance, would look like (23) below, where the verb moves to Foc.[5]

(23) … [$_{FocP}$ [$_{Foc}$ fereaşte [$_{FP}$ [$_{F}$ te [$_{IP}$ [$_{I}$ ~~fereaşte~~ [$_{vP}$ [$_{V}$ ~~fereaşte~~ [$_{PP}$ …

The fact that MR still allows stylistic, highly focused expressions where indicatives or conditionals precedes the clitic, as in (24)-(25) below, is an argument in favour of such an analysis, where the preverbal position of the verb is associated with an emphatic reading.

(24) *Pare-**se** că vrea să plece.* (MR)
seems-CL.REFL that wants SUBJ leave.3
'It seems that (s)he wants to leave.'

(25) *Mira-**m-aş** că vine şi ea!* (MR)
wonder-CL.REFL.1SG-AUX.1SG that comes also PRON.NOM.3SG.F.
'I would be surprised if she came along.'

We adopt this movement of the verb to a Focus projection in order to derive the V>clitic constructions. These constructions are attested started from mid-17th century. In the constructions involving strong pronominal arguments, on the other hand, the verb may also move, but not as high as FocP. Zafiu (2010), Alboiu & Hill (2012) and Alboiu et al (2014) all show that 16th century OR does have (non-emphatic) verb movement but it targets a lower projection than FocP, namely to FinP (the equivalent of IP in our structures).

Based on our assumptions on derivational complexity mentioned above and the structures in (14), (16) and (23), the derivation of cl>V or V>strong pronoun constructions involves fewer operations than the derivation of V>cl constructions, where the verb has moved to FocP. It follows that the derivation of (14), as well as that of (1), (2), (3b) is less costly from a computational point of view than the derivation of (23), as well as that of (3a), hence it is preferable for efficiency reasons. Thus, in a fluctuation period such as the one observed in OR, our analysis predicts that given DAP and the fact that the derivation of post-verbal clitic objects is more derivationally costly, proclisis will be preferred. Our prediction is confirmed by MR data.

3.3. Representational complexity

We have seen that verb movement yields variation in the position of pronominal objects in OR. But we have not said anything about the variation in the choice between a strong and a clitic form of the object pronoun in the evolution of Romanian, cf. the contrast between (1a), (2a) and (1b), (2b). What drives the choice of a clitic over a strong pronoun in the evolution of Romanian? Why are patterns (26a) and (26d) – i.e. with strong object pronouns – attested in OR, rather than simply (26b) and (26e) – i.e. with clitic objects, which incidentally is also what survived in highly stylistic MR (cf. (26c) and (26f))?

[5] The constituents preceding FocP are in a topicalised projection TopP. The proposed cartography of the OR clause in Alboiu & Hill (2012) is TopP>FocP>FinP/IP>TP. We differ from their clause structure assumptions only with respect to clitic placement: while they place clitics adjoined to T, we have them in F, as in Uriagereka (1999), above IP. We also assume Long Head Movement (Rivero 1993, a.o.), ensuring that the verb is able to move to higher projections such as FocP.

(26) Summary of diachronic changes

Old Romanian (strong pronoun use)	**Modern Romanian (clitic use)**
a) *primiişi* ***mine*** received.2SG PRON.ACC.1SG.	b) ***mă*** *primişi* *(pe mine)* CL.ACC.1SG. receive (DOM PRON.ACC.1SG.) c) stylistic: *primişi-**mă*** receive-CL.ACC.1SG.
d) *cânt* ***ţie*** sing PRON.DAT.2SG.	e) ***îţi*** *cânt* *(ţie)* CL.DAT.2SG. sing (PRON.DAT.2SG.) f) stylistic: *cântu-**ţi*** sing-CL.DAT.2SG.

We believe the answer to this question lies in the degree of complexity at the SM interface that differentiates strong pronouns and clitics. In other words, the choice of a strong pronoun (in OR) implies the choice of a more complex SM form, an option which is gradually eliminated in favour of a less complex form, in our case, a clitic (in MR). This implies that DAP is equally sensitive to another measure of complexity, i.e. E-complexity.

Numerous studies have investigated the difference in structure between strong pronouns and clitics. Cardinaletti & Starke (1999), Déchaine & Wiltscko (2002), Di Sciullo (2005), a.o., have proposed systems where the visible lack of structure in the clitic form is the reflection of a deficient internal structure. The fact that deficient pronouns have an impoverished structure is shown by their morpho-phonological form (*l, i*, etc.), while strong pronouns are more articulated, often including determiner forms (*lui, ei*, etc.). Since features have a morphological reflex in the theory we are adopting, we should expect that clitics lack encoding some of the features that are present in the strong forms. In other words, the features of the clitic should constitute a subset of the features of the strong pronoun. The exact feature argued to be deficient in clitics as opposed to strong pronouns may differ according to the approach. It has been proposed that Romance clitics lack encoding a [person] feature, cf. Uriagereka (1995), a.o. In Cardinaletti & Starke (1999), the difference between strong pronouns and deficient ones is the presence/absence of the Case projection in their structure. In Déchaine & Wiltschko (2002) strong pronouns and clitics have a different categorical status.

We adopt Di Sciullo (2005), where the internal structure of functional elements, is represented in terms of the operator shell (Op-Shell), which consists of two layers of asymmetrical relations. The upper layer of the shell is the locus of bivalent operator features, such as the determiner [±D] feature. The [+D] feature is externalized as definite determiners, e.g. *the*, and the [-D] feature, is externalized as expletive determiners, e.g. *it*. The lower layer of the Op-Shell hosts the restrictor of the variable bound by the operator. The difference between strong and weak pronouns resides in the presence of a focus [+Foc] feature in the case of strong pronouns, and its absence [-Foc] in the case of weak pronouns, as illustrated in (27a) and 27b).

(27) a. [Op**D** F [α Re β]] strong pronoun
[+D] phi-features
[+Foc]
b. [Op**D** F [α Re β]] clitic
[+D] phi-features
[-Foc]

Considering the upper layer of the OP-shells in (27), the pronominal operator ($Op_{D)}$ is associated with a focus feature (Foc) in the case of a strong pronoun (27a), but not in the case of a clitic, (27b). The F head is the locus of the variable bound by the operator. This variable is linked to its restrictor (Re) in the lower layer of the Op-Shell. For example, with pronouns, Re can be [+Human], e.g. *he/him* or [–Human], e.g. *it*. The dependent of the restrictor is associated with phi-features, including person, number, gender and Case.

In this framework, "the Op-Shell covers the morphological properties of [±Q] elements, including question words and complementizers, and [±D] elements, including definite, indefinite, and expletive determiners, demonstratives and pronouns, which have the same asymmetric form.'' (Di Sciullo 2005:121). In this framework, functional elements including determiners, demonstratives, and complementizers have the same morphological form and differ with respect to their functional features.

The difference in SM representational complexity may not always arise from string-linear properties. In our case, while a string-linear difference is visible in certain forms of the strong pronoun/clitic pair, such as *mine* PRON.ACC.1SG. vs. *mă* CL.ACC.1SG., this difference may not be obvious in other forms, such as *ţie* PRON.DAT.2SG. vs. *îţi* CL.DAT.2SG. On the other hand, the notion of density of SM representations encompasses string-linear properties and supra-segmental features, in our case stress. Thus, in both *mine* / *mă* and *ţie* / *îţi* pairs, for instance, only the strong pronoun can bear stress. This difference in SM representational complexity leads to the preference of the clitic (the less complex form) over the strong pronoun (the more complex form).

Our analysis predicts that, whenever a choice is possible, a clitic will be preferred over a strong pronoun, which concurs with what is found in L1 acquisition studies (Granfeldt & Schlyter 2004). It also concurs with principles such as Avoid Pronoun (Chomsky 1981) or Minimise Structure (Cardinaletti & Starke 1999, essentially stating that whenever a weak pronoun is available it must be chosen over a stronger pronoun). In the constructions under examination here, after a period of fluctuation in OR where both strong and clitic object pronouns coexist in a given configuration, only the clitic form survives in later stages of the language. As mentioned above, this is not to say MR doesn't have strong pronouns. As shown in (26b) and (26e), MR allows strong pronouns, but only in CD constructions, i.e. the presence of the clitic is required[6]. In other words, the default pronominal argument seems to be the clitic, and when the strong pronoun is present, DOM is too. Irimia (2015) shows that strong pronouns have indeed different properties in OR as opposed to MR. Namely, while DOM and CD are not obligatory in OR, they are in MR. She links this difference to the levels of prominence active in the language at a given point in time. While in MR the DOM constructions are subject to both the animacy and the

[6] One could wonder why these doubling cases are not subject to DAP. It is generally assumed that CD structures are highly emphatic and thus motivated on grammar external grounds.

definiteness scale, presumably in OR the definiteness scale is not fully implemented, yielding a variable behaviour of strong pronouns. Thus, it may be the case that, as the later stages of Romanian impose more constraints on the presence of the strong pronouns (i.e. DOM becoming increasingly obligatory), the choice of pronominal arguments gradually reduces to clitic forms, a 'simpler' choice on both E-complexity and I-complexity grounds.

3.4. Summary

Our study of the change in form of pronominal object constructions from OR to MR reveals that they are the result of two phenomena: on one hand, there is an optional, discourse-related movement of the verb to a position higher than the tense-bearing node (cf. Alboiu and Hill 2012, Alboiu et al 2014); on the other hand, there is a choice between strong and clitic forms of the object pronoun. We propose that the form of the pronominal object constructions in the evolution of Romanian is the result of the reduction of two types of complexity:

i) I-complexity or derivational CI complexity (as a measure of the number of syntactic operations that apply in the derivation of a linguistic expression)

Under its effect, MR gradually lost the verb movement motivated by discursive features.[7] The only verb movement to a projection higher than the tense-bearing node that is still attested in MR is not discourse-related (i.e. not optional), but motivated by syntactic-feature checking/valuation in imperative and gerund constructions.

ii) E-complexity or representational SM complexity (as a measure of the SM density of a representation)

Under its effect, MR gradually lost the choice of strong pronouns in favour of clitics in argument positions (i.e. examples such as (26a), (26d) are disallowed, in favour of (26b) and (26e)), independently of verb movement.

The combined effect of the two complexity-reduction mechanisms is the complete loss of postverbal strong pronouns (without DOM) in MR.

4. CONCLUSION

We have examined pronominal objects in Old Romanian to Modern Romanian and investigated the hypothesis that the fluctuation in their position (pre-/post-verbal) and their form (clitic/strong pronoun) is the result of the DAP, a complexity-reducing principle proposed in Di Sciullo (2011), according to which language evolution is symmetry breaking.

We confirmed the effects of the DAP in the evolution of Romanian. We proposed that in addition to derivational complexity reduction, representational complexity reduction is also a factor of language change.

Fluctuation emerges in the position and the form of the object pronoun in the evolution of Romanian. As predicted by our hypothesis, this fluctuation, which was available in OR, was gradually reduced throughout the development of MR. This evolution can be explained in terms of symmetry breaking principles such as the DAP, as part of the

[7] Reminiscent of these are cases of stylistic emphasis in MR such as in (24) and (25) above, crucially involving clitics.

natural laws reducing complexity. Language change is pervasive across languages. According to our view, symmetry breaking is a recurrent phenomenon in language diachrony whereby morpho-syntactic symmetry introduces choice-points, thus instability, in a natural system seeking to eliminate them in order to initiate novel asymmetrical stable states.

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