OLD FRENCH AND ROMANIAN DECLENSIONS FROM A *WORD AND PARADIGM* PERSPECTIVE AND THE NOTION OF "DEFAULT SYNCRETISM"

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Abstract. Old French and Romanian nominal inflections or declensions share the property of being apparently uncomplicated as their paradigms consist in only two forms at most: a base form and an inflected form. This outward simplicity, however, results from complex syncretisms. In Old French masculine nouns, the singular subject case and the plural object case are identically inflected, whereas the singular object and the plural subject cases are identical base forms; in Romanian feminine nouns, the singular genitive-dative and the two plural case forms are the same. Such syncretisms raise a descriptive and theoretical issue as they appear to be neither semantically motivated nor fully arbitrary. Drawing on the conceptual and formalizing resources of Word and Paradigm (WP) theory and Paradigm Function Morphology (PFM), the present essay attempts to solve the issue by assuming a third kind of syncretism that involves not the meaningful content of features, but their DEFAULT value. At the same time, it proposes a nearly full treatment of Old French and Romanian declensions in PFM terms.

Keywords: case, default, declension, gender, number, paradigm, syncretism.

1. INTRODUCTION

As is well-known, only Old French and Romanian among Romance languages kept something of the Latin rich nominal inflection for case and number or DECLENSION. The present study aims to provide a synchronic account of this phenomenon in a *Word and Paradigm* (WP) framework (Blevins 2006), using the formal apparatus of Paradigm Function Morphology (PFM – Stump 2001; Bonami, Stump to appear).

By "synchronic account" I mean an attempt to elaborate a plausible formal model of the internalized grammar of Old French and Romanian speakers in the domain under consideration. The fact that Old French has been a dead language for six hundred years ought not to deter us, since we are dealing with morphological matters that do not require – or not crucially so – recourse to grammaticality judgments. The abundant corpus of Old French texts from the eleventh to the fourteenth century is therefore more than enough to fuel the present study.

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What is new, I believe, in the latter lies precisely in the formalizing of a subset of Old French morphological data, whereas available analyses are mostly diachronic: Old French data are explained through series of changes beginning in the language's direct ancestor Vulgar Latin (La Chaussée 1977; Picoche 1979; Väänänen 1981; Clackson 2008). History is of course relevant (for Romanian as well), but it says nothing about the actual competence of the language users, which is what formalization, if it is not to be a mere game, attempts to simulate.As for Romanian, I am not aware that its declension has ever been tackled from the theoretical angle adopted here (but see Kihm 2007 for a first thrust in that direction).

Case-number declensions in Old French and Romanian appear to be simple: two cases, one exponent.[2] Analysis is complex, however. Complexity comes from a possibly rare case of SYNCRETISM in the paradigms for masculine nouns and adjectives in Old French and for feminine nouns and adjectives in Romanian. The study will focus on those, as only they raise intriguing and theoretically interesting issues.

Syncretism means formal identity of paradigm cells expressing distinct inflectional feature values (Corbett 2007b) : e.g. Romanian *(eu) tac* {1SG} 'I am silent' vs. *(ele/ei) tac* {3PL} 'they are silent'. A distinction is usually drawn between arbitrary or stipulated, i.e. semantically nonmotivated syncretism and nonarbitrary or unstipulated, i.e. semantically motivated syncretism (Stump 2001:215) : cf. Romanian arbitrary *tac* / *tac* vs. semantically motivated *(ea/el) invită* {3SG} 's/he invites' / *(ele/ei) invită* {3PL} 'they invite'. The latter indeed allows us to propose that number is not distinguished in the 3rd person in first conjugation verbs, whereas no such rationale – as "explanation" would be much too strong a term – is available for the identity of 1SG and 3PL forms, which seems to be merely a fact to be memorized.

My proposal, supported by the Old French and Romanian data, is that a third type exists, in which the identity of the cells is neither arbitrary nor explainable from the meaningful value of the features, but it is a function of the DEFAULT values of the features, depending on whether they are EQUAL in default (all <+> or all <–>) or OPPOSITE in default (<+> and <–>). Hence my term of DEFAULT SYNCRETISM.

The study is organized as follows. First (§2) I give a brief overview of WP. In §3 I summarily describe twelfth century Old French declension with a few references to Old Occitan (Anglade 1921/1977 ; Raynaud de Lage 1964; Nyrop 1965; Rheinfelder 1967; Moignet 1973; Zink 1989, 1990; Skårup 1997 ; Joly 1998; Buridan 2000; Klausenburger 2001), and I do the same in §4 for contemporary Romanian declension (GALR 2005; Kihm 2005, 2007) ; In §5 I point out the remarkable and intriguing properties of both declensions and I sum up the questions in §6, focussing, as mentioned, on masculine nouns and adjectives in Old

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[2] Traditional accounts of Romanian declension list five cases. As we shall see below, this number is easily brought down to two.

French and feminine nouns and adjectives in Romanian. In §7-8 I examine and reject two alternative analyses in terms of polarity and deponency. In §9 I consider another possibility, namely that a "toggling" property should be attributed to the exponents themselves (Weigel 1993), and I also reject it as it implies a constructivist and, I believe, mistaken view of morphological processes. I then propose what I think is the right solution, i.e. default syncretism as a property of the paradigm, variously realized in Old French and in Romanian (§10-11). Finally (§12) I risk going beyond formal accounts in order to try and understand why Old French and Romanian declensions are the way they are and why their pattern appears to be so rare in the world's languages. The said formal accounts are then given in full in two appendices.

2. WP AND THE REALIZATIONAL APPROACH: AN OVERVIEW

Two views of morphological phenomena are traditionally opposed: *Item and Arrangement* (IA) and *Item and Process* (IP) on the one hand (Hockett 1954); WP on the other hand (Robins 1959 ; Blevins 2006). According to Stump (2001: 2), lexical theories ought to be distinguished from realizational theories and incremental theories from inferential theories. IA and IP theories share the property of being lexical, the former incremental in addition (see Lieber 1992), the latter inferential (see Halle, Marantz's 1993 Distributed Morphology).

Lexical theories are CONSTRUCTIVIST. For them, a form such as Romanian *întrebasem* 'I had asked' results from successively adding the suffixes *-se-* "pluperfect" and *-m* '1SG' to the stem *întreba-*, itself formed by adding the thematic vowel *a* to the root *întreb*. All these elements – to the exception of the thematic vowel, a significant detail – are supposed to be present in the lexicon, as such (Lieber) or as abstract morphemes phonologically interpreted at the end of the syntactic derivation that concatenates them (Halle, Marantz). The syntax thus involved is either phrase syntax (Lieber, Halle, Marantz) or word syntax, differing to some extent from phrase syntax (Ackema, Neeleman 2004).

It follows from such a view that "full" words (e.g. *scaun* 'chair') differ from grammatical morphemes (e.g. *-se-*) only by the bound character of the latter. Morphology, insofar as it exists independently, only deals with bound elements, i.e. affixes and perhaps clitics. Periphrastic constructions, e.g. Romanian *va întreba* or *are să întrebe* 's/he will ask', can only be built by phrase syntax, even though they constitute intrinsic parts of the paradigm of the verbal lexeme ÎNTREBA.

WP as a general framework and PFM as a specific theory, in contrast, belong to the realizational inferential or ABSTRACTIVE family. They take as their basic element the word-form (Matthews 1974), e.g. *întrebasem*, i.e. a fully inflected word, distinct or not from the root or stem: compare *întrebasem* with *scaun*. The lexicon includes only word-forms – the only forms children acquiring their native language first meet, be it said in passing. Word-forms are interpreted through

contrast with other word-forms they paradigmatically relate to. PARADIGMS are therefore the true fundamental elements of the morphological component, to wit sets or *séries associatives* (Saussure 1915/1982: 175) of forms that share the same roots – or don't, in the relatively rare case of suppletion as in Romanian *sunt* 'I am', *eşti* 'you are', etc.

Grammatical morphemes have no autonomous lexical existence. They are ABSTRACTED from paradigmatically organized word-forms: e.g. *-m* '1SG' is abstracted by comparing *întrebasem* 'I had asked' with *întrebaseşi* 'you had asked', etc. ; *-s-* 'pluperfect' is abstracted by comparing *întrebasem*, *întrebaseşi*, etc. with imperfect *întrebam*, *întrebai*, etc. 'I asked, you asked, etc.' Abstracting means to perceive variation over a background of regularity such as the stem *întreba-*. Once it has been remarked, the variation may be generalized : What would be the 1ˢᵗ person singular pluperfect of the imaginary Romanian verb *a ştrumpfa* ? Answer: *ştrumpfasem*.

WP and PFM are naturally adjusted to morphomic phenomena (Aronoff 1994), i.e. purely morphological and semantically void processes, whereas constructivist theories can only deal with (even minimally) meaningful morphemes. Thematic vowels as mentioned above are one such phenomenon ; another is exemplified by Romanian *văzusem* 'I had seen', showing that the pluperfect is formed on the past participle stem when it differs from the infinitive stem : cf. *văzut* 'seen' vs. *a vedea* 'to see' compared with *întrebat* 'asked' vs. *a întreba* 'to ask'.

In a WP framework, periphrastic forms integrated to paradigms are formed in the morphological component just as synthetic forms are (Ackerman, Stump 2004; Ackerman, Stump, Webelhuth, to appear).

3. OLD FRENCH DECLENSION: A SUMMARY DESCRIPTION

Nouns and adjectives in Old French potentially inflect for two cases : the subject case (*cas sujet*) (SC) for the subject, whatever relates to it syntactically, and the vocative ; the object case (*cas régime*) (OC) for all the rest. Nouns belong to several declensions (aka inflectional classes) according to gender and stem's form. Following Buridan (2000), six declensions can be distinguished for nouns in Old French: M1, M2, MVS, F1, F2, FVS. Adjectives, agreeing in gender, number and case with the nouns they qualify, fall under four declensions: M1, MVS, F1, and FVS. There is a further distinction between adjectives which formally contrast masculine with feminine (e.g. *bon* / *bone* 'good') and adjectives which do not (e.g. *grant* 'big').[3]

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[3] There is also a so-called "neuter", identical to the singular OC, that is only used as the predicate of an expletive or infinitive subject as in *mout m'est bel* /much to-me is nice/ 'it's very nice to me', where *bel* appears instead of the expected SC *bels* (Raynaud de Lage 1964: 37).

3.1. M1

It includes masculine (M) nouns and adjectives whose stem ends in a consonant, a vowel, a stressed diphthong, or unstressed /e/ realized [ə] (schwa):

Table 1

Old French M1declension of BON MUR 'good wall'

	Singular	Plural
SC	*li bons murs*	*li bon mur*
OC	*le bon mur*	*les bons murs*

M1 makes a distinction between SC and OC at both numbers. SC.SG is marked by the -*s* ending, OC.SG is nonmarked ; the opposite obtains in the plural : SC.PL nonmarked, OC.PL marked by -*s*.[4] Hence a 4-cells paradigm with one exponent.[5]

Paradigms conventionally include the definite article, also inflected for gender, number and case. Notice, however, that bare noun phrases – i.e. NP's without a determiner – are much more frequent in Old French than in Modern French and word order is freer. Case marking is therefore often the only clue to the semantic role of the NP (on bare nouns in Modern French and other Romance languages, see Dobrovie-Sorin, Laca 2010). This is illustrated in (1) (Régnier 1967:45):

(1)   *Bertran   apele...*
        Bertran.OC call.PRES.INDIC.3SG
        'He calls Bertran…'

Object case on *Bertran* (contrasting with SC *Bertranz*) unambiguously signals that the sentence must be understood as translated in (1) – Old French being pro-drop (compare Modern French *Il appelle Bertrand*) – not as "Bertran calls" (Modern French *Bertrand appelle*).

Masculine nouns ending in /s/ or /ts/ (spelled *z*), e.g. *bois* 'wood', *vis* 'face', *braz* 'arm', do not decline, probably for phonological reasons, as */bratss/ would be ill-formed. The assumption is supported by Old Occitan SC.SG / OC.PL *brazes* 'arms' where epenthetic /e/ makes inflectional /s/ pronounceable (Anglade 1921/1977:216; Skårup 1997:62). Such a recourse is rare in Old Occitan, it is unattested in Old French.

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[4] I make a distinction between "nonmarked" meaning devoid of morphological marking and "unmarked" in the sense of markedness theory.

[5] At least until the second half of the thirteenth century final -*s* was pronounced in nearly all contexts. It could be mute only when preceded and followed by a consonant within a syntactic close-knit phrase as in *li bon(s) murs* (SC.SG) 'the good wall' (Raynaud de Lage 1964: 14).

Final schwa in M1 is always preceded by a consonant cluster or an affricate: cf. *pueble* 'people', *damage* /damádžə/ 'damage', *autre* 'other', which shows it to be epenthetic and the stem to be consonant-final (Zink 1989:10).

From a diachronic viewpoint, M1 CS.SG -*s* comes from Vulgar Latin NOM.SG -*s* of declensions II-III: cf. Vulgar Latin *mūrus* > Old French *murs* 'wall', Vulgar Latin *rex* /rek-s/ > Old French *rois* 'king'. M1 OC.PL -*s* comes from ACC.PL -*Vs* of the same declensions: cf. *mūros*, *reges*. (Declensions IV-V were extinct in Vulgar Latin.) Absence of -*s* in OC.SG and SC.PL proceeds from the same absence in ACC.SG of declensions II-III and NOM.PL of declension II: cf. *mūrum*, *regem*, *mūri*.

Considering that final -*m* was mute as soon as the end of the Republic (Meillet 1933) and discounting oblique cases, we get the following paradigm, identical to the M1 paradigm of Table 1 except for the post-tonic vowels:

Table 2

Vulgar Latin declension of BONUS MURUS 'good wall'[6]

	Singular	Plural
Nominative	*bonus murus*	*boni muri*
Accusative	**bonu muru*	*bonos muros*

Absence of -*s* in SC.PL of M1 nouns coming from the Vulgar Latin declension III despite NOM.PL -*es* – cf. *li roi* 'the kings' vs. *reges* – is analogical.

3.2. M2

It includes masculine nouns ending in nonepenthetical schwa:

Table 3

Old French M2 declension of (BON) PERE 'good father'

	Singular	Plural
SC	*li bons pere*	*li bon pere*
OC	*le bon pere*	*les bons peres*

M2 makes a case distinction only in the plural and a number distinction only in the OC. It frequently aligns on M1, hence SC.SG *peres* instead of *pere*.[7]

Absence of -*s* in SC.SG (except for analogy with M1) is etymological: cf. Vulgar Latin NOM.SG *pater* 'father'. The same absence in SC.PL despite Vulgar Latin *patres* 'fathers' is due to analogy.

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[6] ACC.SG **bonu muru* is reconstructed, hence the star.

[7] Since there is no such thing as agreement in inflectional class, the masculine adjective naturally keeps its M1 declension.

3.3. MVS

Also called "imparisyllabic", it includes masculine (M) nouns and adjectives with a variable stem (VS). MVS adjectives, very few in number, are all synthetic comparatives. MVS shows a special stem at SC.SG, to which -*s* optionally suffixes in the case of nouns:

Table 4

Old French MVS declension of BARON 'baron'

	Singular	Plural
SC	*li ber(s)*	*li baron*
OC	*le baron*	*les barons*

Table 4'

Old French MVS declension of GRAIGNOR 'bigger'

	Singular	Plural
SC	*graindre*	*graignor*
OC	*graignor*	*graignors*

The SC.SG stem ends in a consonant as in *ber(s)* or *glot(s)* / *gloton* 'glutton', or in schwa : e.g. *emperere(s)* / *empereor* 'emperor', *sire(s)* / *seignor* 'sire, lord', etc. All MVS nouns denote humans. In Modern French only the non-SC.SG stem usually survived (e.g. *baron*) or the two stems became different lexemes (e.g. *sire* 'sire' and *seigneur* 'lord').

The MVS declension arose owing to the mobility of Latin stress and the resulting sound changes: cf. *se̍niŏr > si̍re* vs. *seniōrem > seigno̍r* 'lord', *i̍nfans > e̍nfes* vs. *infa̍ntem > enfa̍nt* 'child', *me̍lior > mie̍udre* vs. *meliōrem > meillo̍r* 'better'.

3.4. F1

It includes feminine nouns ending in schwa, which inflect for number only as in (written) Modern French: cf. *la grant porte* 'the big door' / *les granz portes* 'the big doors', subject or object, where *grant* is one of those adjectives that do not vary for gender. A few F1 nouns (F1a) are invariable: *la paire* / *les paire* 'pair(s)', *la charre* / *les charre* 'cartload(s)', *la doie* / *les doie* 'the finger(s) (as a measure)', *la mile* / *les mile* 'the thousand(s)'.

F1 proceeds from Vulgar Latin declension I. Early deletion of final -*m* entailed loss of the NOM vs. ACC contrast in the singular: *porta = porta(m)*, *bona = bona(m)*. The confusion carried over to the plural where NOM *portae* and *bonae* were replaced by ACC *portas* and *bonas*. Invariable F1a nouns come from Vulgar Latin neuters: sg. *charre < *carru*, pl. *charre < *carra*.

3.5. F2

It includes feminine nouns not ending in schwa, e.g. *flor* 'flower', which take -*s* in SC.SG :

Table 5

Old French F2 declension of FLOR 'flower'

	Singular	Plural
SC	*la flors*	*les flors*
OC	*la flor*	*les flors*

F2 distinguishes case in the singular only (*flors* vs. *flor*) and number in the OC only (*flor* vs. *flors*). As in M1, F2 nouns ending in /s/ or /ts/ are *de facto* invariable: e.g., *la pais* 'the peace', *la croiz* 'the cross', *l'empereris* 'the empress', etc. Abstract nouns in -*té* belong to F2: cf. *beautez* / *beauté* 'beauty'. F2 nouns tend to align on F1 by not showing -*s* in SC.SG.

A few F2 nouns come from Vulgar Latin declension III feminines with -*s* in NOM.SG: cf. *la fins* 'the end' < *finis*. For the remainder, e.g. *la flors* (Classical Latin *flos*, *florem)*, one reconstructs Vulgar Latin NOM.SG **floris* (= GEN.SG of Classical Latin).

3.6. FVS

It includes variable stem ("imparisyllabic") feminine nouns and adjectives (the feminine partners of MVS adjectives). It is similar to MVS in the singular, except for never showing -*s* in SC.SG. It makes no case distinction in the plural:

Table 6

Old French FVS declension of NONAIN 'nun'

	Singular	Plural
SC	*la none*	*les nonains*
OC	*la nonain*	*les nonains*

Table 6'

Old French FVS declension of GRAIGNOR 'bigger'

	Singular	Plural
SC	*graindre*	*graignors*
OC	*graignor*	*graignors*

All FVS nouns end in schwa in SC.SG, but *suer* / *seror* 'sister'. There are fewer of them than MVS nouns, and they do not all denote humans.

The diachronic account is the same as for MVS: Vulgar Latin NOM *puta* > *pute* vs. Vulgar Latin ACC *putānam* > *putain* 'whore', Vulgar Latin NOM *sorŏr* >

suer vs. Vulgar Latin ACC *sorōrem* > *seror* 'sister'. In Modern French only the SC.SG stem survived (e.g. *nonne*, *soeur*) or the two stems became different lexemes (e.g. *pute* and *putain*, the former a coarser synonym of the latter).

4. ROMANIAN DECLENSION: A SUMMARY DESCRIPTION

It is traditionally accepted that Romanian nouns and adjectives potentially inflect for five cases : nominative (NOM), accusative (ACC), genitive (GEN), dative (DAT), and vocative. We leave vocative aside as it is clearly marginal and on the wane in actual usage (Croitor Balaciu 2004). The contrasts NOM / ACC and GEN / DAT are syntactically established (Pană Dindelegan 2003, Chapter 2). From a morphological viewpoint, however, NOM and ACC forms as well as GEN and DAT are always syncretic.

From this we conclude that Romanian nouns morphologically decline for two cases only, which we will call the direct case (DIR) = NOM + ACC for subjects, direct objects, and complements of some prepositions; and the oblique case (OBL) = GEN + DAT for genitives, datives, and complements of some prepositions. (Base form and inflected form are other terms in use.)

Nouns and adjectives belong to two declensions according to whether they are masculine or feminine in gender. (For neuter, see below.) Some adjectives do not vary in gender as in Old French (e.g. *mare*$_{SG}$ / *mari*$_{PL}$ 'big'), while others do so only in the singular (e.g. *mic*$_{M.SG}$ / *mică*$_{F.SG}$ / *mici*$_{PL}$ 'small'). I will illustrate with adjectives that contrast gender in both numbers (e.g. *frumos*$_{M.SG}$ / *frumoasă*$_{F.SG}$ / *frumoși*$_{M.PL}$ / *frumoase*$_{F.PL}$ 'beautiful'). Moreover, since definiteness is expressed suffixally in Romanian, I will assume, in accordance with WP principles, that each declension splits into two subclasses, conventionally called inarticulated and articulated, both arising from the morphological component (see Appendix II). Attributive adjectives agree in number and gender with the head noun. (For definiteness, see Appendix II.)

4.1. Masculine nouns

They show syncretism of DIR and OBL in the singular and the plural of the inarticulated declension. We maintain the contrast, however, since it is overt in the articulated declension and, as suggested above, the WP framework implies we consider such forms as *lupul* 'the wolf' and *lupului* 'of/to the wolf' to be morphologically constructed word-forms.[8]

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[8] *Un(ui)* is the masculine indefinite article; *niște* means 'some'. In noun-adjective noun phrases as in Table 7, the definite suffix actually attaches to whatever comes first from the noun or the adjective when both orderings are grammatical (compare *frumosul lup* 'the beautiful wolf'). Accounting for this phenomenon is important as it would seem to favour the traditional syntactic analysis of definiteness marking in Romanian over the morphological one upheld here. It will have to be left for later work, however.

Table 7

Declension of masculine LUP FRUMOS 'beautiful wolf'

		Inarticulated	Articulated
Singular	DIR	*(un) lup frumos*	*lupu-l frumos*
	OBL	*(unui) lup frumos*	*lupu-lui frumos*
Plural	DIR	*(nişte) lupi frumoşi*	*lupi-i frumoşi*
	OBL	*(nişte) lupi frumoşi*	*lupi-lor frumoşi*

We abstract from stem alternations (e.g. *om / oameni* 'man / men'), phonologically conditioned palatalizations (e.g. *frate / fraţi* 'brother(s)), and definite suffix allophony (e.g. *fratele* 'the brother'). In the singular, masculines like *lup* show two stems: a short, consonant-final stem at the inarticulated form; a long stem ending in the thematic vowel /u/ at the articulated form. In masculines like *frate*, the thematic vowel /e/ appears at both forms of the singular and the DIR.SG exponent of definiteness shows up as -*le*.

Historically, Romanian DIR.SG comes from Vulgar Latin NOM.SG (cf. *lupus*, *formosus*) and ACC.SG (cf. *lupu(m)*, *formosu(m)*), which merged so that final /s/ was lost, unlike what happened in Old French, which preserves NOM.SG -*s* as we saw (cf. SC.SG *li bels lops* 'the beautiful wolf').

DIR.PL comes from declension II NOM.PL (cf. *lupi*, *formosi*) generalized to ACC.PL (cf. *lupos*, *formosos*), again unlike Old French which lost final -*i* (cf. SC.PL *li bel lop* 'the beautiful wolves') and kept -*s* (cf. OC.PL *les bels lops* 'the beautiful wolves').

Masculines from declension III merged with declension II: cf. Romanian *frate / fraţi* < Vulgar Latin NOM.SG *frater* ~ ACC.SG *fratre(m)* / NOM.PL *fratres*; Romanian *rege/ regi* < Vulgar Latin ACC.SG *rege(m)* / NOM/ACC.PL *reges* (Brâncuş 2004).

4.2. Feminine nouns

They do not syncretize DIR and OBL in the singular of the inarticulated declension. They do so in the plural.

Table 8

Declension of -*ă*-final feminines like CASĂ FRUMOASĂ 'beautiful house'

		Inarticulated	Articulated
Singular	DIR	*(o) casă frumoasă*	*cas-a frumoasă*
	OBL	*(unei) case frumoase*	*case-i frumoase*
Plural	DIR	*(nişte) case frumoase*	*case-le frumoase*
	OBL	*(nişte) case frumoase*	*case-lor frumoase*

Table 9

Declension of *-e*-final feminines like CARTE FRUMOASĂ 'beautiful book'

		Inarticulated	Articulated
Singular	DIR	*(o) carte frumoasă*	*carte-a frumoasă*
	OBL	*(unei) cărţi frumoase*	*cărţi-i frumoase*
Plural	DIR	*(nişte) cărţi frumoase*	*cărţi-le frumoase*
	OBL	*(nişte) cărţi frumoase*	*cărţi-lor frumoase*

Some *-ă*-final feminine nouns decline as in Table 9 (e.g. *pisică* / *pisici* 'cat(s)'). We abstract from stem alternations: cf. *viaţa* / *vieţe* 'life/lives' *zi* / *zile* 'day(s)', etc. The thematic vowel /ă/ deletes before the definite article in DIR.SG.

OBL.SG *-e* comes from Vulgar Latin GEN/DAT.SG /-ɛ/ (*-æ*) ; DIR.PL *-e* comes from Vulgar Latin NOM.PL /-ɛ/ (*-æ*).

4.3. Neuter nouns

So-called "neuter" nouns are actually ambigeneric (Lombard 1974 :24): they decline like masculines in the singular, like feminines in the plural, entailing corresponding agreements. They therefore do not constitute a third declension. The ending *-uri*, although it is especially frequent with ambigeneric nouns, is neither specific to nor general in them.

Table 10

Declension of ambigeneric ("neuter") DEAL FRUMOS 'beautiful hill'
and PAHAR FRUMOS 'beautiful glass'

		Inarticulated	Articulated
Singular	DIR	*(un) deal/pahar frumos*	*dealu-l/paharu-l frumos*
	OBL	*(unui) deal/pahar frumos*	*dealu-lui/paharu-lui frumos*
Plural	DIR	*(nişte) dealuri/pahare frumoase*	*dealuri-le/pahare-le frumoase*
	OBL	*(nişte) dealuri/pahare frumoase*	*dealuri-lor/pahare-lor frumoase*

The ultimate origin of Romanian neuters is to be found in Vulgar Latin neuters like *bracchium* / *bracchia* 'arm(s)' or *corpus* / *corpora* 'body/bodies', in which the plural *-(or)a* ending was misanalysed as a feminine ending (compare Italian *il bello muro* / *le belle mura* 'the beautiful wall(s)').

5. REMARKABLE PROPERTIES OF THE OLD FRENCH AND ROMANIAN DECLENSIONS

5.1. The Old French declension

The most remarkable property of the Old French declension is the marking "reversal" (Baerman 2007a) exhibited by M1 : *-s* marks the SC in the singular, but

the OC in the plural. Conversely, no marking identifies the OC in the singular, the SC in the plural.

Notice that stem alternation competes with or adds to -*s* to identify SC.SG in MVS : *li ber ~ li bers*.

F2 looks like a mixture of M1 and F1 : it shows reversal as in M1 (*flors*$_{\text{SC.SG}}$ = *flors*$_{\text{OC.PL}}$), but -*s* is generalized in the plural. FVS = F2, except that the alternating stem (e.g. *none*) functionally replaces -*s* in SC.SG.

Schwa-final feminines (F1) contrast number only, so they cannot be said to decline in the strict sense that includes case inflection.

Being a member of M2 rather than M1 is fairly predictible: M2 nouns are few; final schwa never follows a consonant cluster or an affricate.

Two things that cannot be predicted are whether a consonant-final masculine noun belongs to M1 or MVS, and, if the latter, what is the phonological relation between the two stems. In *glot* / *gloton*, for instance, the non-SC.SG stem just involves the "augment" /õ^n/, whereas *ber* / *baron* shows some kind of ablaut (/e/ ~ /a/) in addition to augmentation. Pairs like *sire* / *seignor*, *graindre* / *graignor*, or *niés* / *neveu* 'nephew' stand on the brink of outright suppletion. The same remarks apply to FVS nouns, except for their showing less variation between the two stems. Actually, putting *suer* / *seror* and synthetic comparatives aside, the non-SC.SG stem always equals the SC.SG stem (e.g., /non-/) plus the augment /ẽ^n/.

That said, the significant fact seems to be that, in MVS as in FVS, the SC.SG stem contrasts with the stem that appears in all the other cells of the paradigm. I will therefore consider the SC.SG stem to be the special or nondefault stem.

More generally, taking singular to be default – i.e. assumed to be the case unless there is overt indication to the contrary – in two-valued number systems, the fact that SC.SG is morphologically marked, always in M1 and optionally in M2 and F2, suggests SC to be nondefault, which entails that OC is default (for the significance of morphological default, see Fraser, Corbett 1997). In MVS and FVS as well, SC.SG is nondefault by virtue of presenting a special stem that does not appear in the other cells of the paradigm. OC.SG is entirely nonmarked across the board (in M/FVS because it shows what may be considered the default stem appearing in all cells but SC.SG). In the plural, OC is marked with -*s*. Since plural is the nondefault value for number, however, we may consider exponence to be for number, not for case.

There is a risk of circularity, however, in ascertaining SC's nondefaultness only on the evidence of it being morphologically marked in the singular in three declensions. Being ultimately a semantic-cognitive property, i.e. a matter of what may be viewed as the normal state of affairs that doesn't need to be made explicit – e.g. being one exemplar rather than several of a countable entity – defaultness probably requires evidence of a less grammar-internal nature to be solidly founded. Such evidence is available.

First, there is typological evidence. True, Old French runs counter to the typological generalization according to which the subject case or nominative is morphologically nonmarked in nonergative (nominative-accusative) case systems. Ancient Indo-European languages such as Sanskrit, Greek, Gothic, and Latin (Meillet 1922/1964) constitute a massive counterexample to this generalization, however, insofar as the nominative appears at least as much marked as the accusative (Sanskrit, Greek, Classical Latin) or more marked (Gothic masculine *-a* and *-ja* stem nouns – Mossé 1956; Jasanoff 2008), with *-s* in all instances.[9] Moreover, we saw that, because of final *-m* deletion, the nominative of masculine nouns resulted being more marked than the accusative in Vulgar Latin (Table 2). Old French therefore did no more than follow its ancestor in instantiating a mixed type – nondefault subject case in a nominative-accusative case system – already represented in Indo-European.

Secondly, there is syntactic evidence, namely the fact that OC had more uses than SC both in types and in tokens. As mentioned above, SC is the case of the subject and what relates to it, namely attributive adjective phrases and adjective or noun predicates, and it is used as a vocative. Direct (accusative) and indirect (dative) objects of verbs, complements of prepositions, and adjuncts of all types appear in the OC. The latter's frequency in texts – and we may assume in speech – was thus far greater.

Thirdly, there is the historical fact that SC forms disappeared in Middle French but for a few exceptions still to be found in Modern French (e.g., *fils* 'son', where sounded final /s/ is felt to be part of the root, and personal names like *Charles* where it is mute and purely graphic – see Nyrop 1965: 205-209). From paradigm (1) Modern French only retains the two OCs, *le mur* 'the wall' and *les murs* 'the walls', now contrasting for number only, if at all.[10] As a rule, default forms tend to resist language change better than do nondefault forms.

Finally, as declension began to collapse at the beginning of the thirteenth century, encroachments of the OC into the SC domains became more and more widespread, whereas "mistakes" in the opposite direction are rare (see Rheinfelder 1967: 35; Buridan 2000: 75-80).

To sum up, Old French SC's nondefaultness is typologically and diachronically unsurprising, and it shares the external characteristics that usually denounce it: relative rarity of use and vulnerability to change.

Given this, it comes out as a riddle that SC.PL, which ought always to be marked as it is doubly nondefault, for case as well as for number, is entirely nonmarked in M1, M2, and MVS, i.e. in all masculine nouns. In this way, it

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[9] See Martinet (1986: 186) for the possibility that this *-s* may have begun its life as an ergative ending.

[10] I am only considering WRITTEN Modern French here. In the spoken language, *mur* and *murs*, both /mür/, are the same word-form, and number shows on the determiner only. As a general strategy, it seems reasonable to view written and colloquial Modern French as two distinct languages, given the sweeping differences between them.

becomes syncretic with OC.SG, also nonmarked, but now for the good reason that it is entirely default for case and for number. Any synchronic analysis that does not account for this paradox cannot be considered adequate.

5.2. The Romanian declension

The most remarkable property of the Romanian declension has to do with feminine nouns and adjectives such as *casă*, *carte*, and *frumoasă* in whose paradigm the OBL.SG cell is distinct from the DIR.SG cell, unlike in masculine nouns, and is always syncretic with the two plural cells, themselves syncretic (Tables 8-9). As a result, in the inarticulated form, feminine nouns and adjectives make a case distinction in the singular (*o casă frumoasă*$_{\text{DIR.SG}}$ vs. *unei case frumoase*$_{\text{OBL.SG}}$), unlike masculines, but not in the plural (*nişte case frumoase*$_{\text{DIR.PL}}$ = *nişte case frumoase*$_{\text{OBL.PL}}$). They make an overt number distinction in the direct case (*o casă frumoasă*$_{\text{DIR.SG}}$ vs. *nişte case frumoase*$_{\text{DIR/OBL.PL}}$) but not in the oblique case (*unei case frumoase*$_{\text{OBL.SG}}$ = *nişte case frumoase*$_{\text{DIR/OBL.PL}}$).

Given such facts, the question we must ask is this: are formally identical cells really an instance of syncretism – i.e. distinct morphosyntactic properties with the same expression – or do masculines across the board and plural feminines simply not inflect for case at all?

The answer seems to be that they do inflect for case and formal identity is a matter of syncretism. Evidence for this comes from the observation that definite unmodified nouns are nevertheless inarticulated when they are governed by a DIR-assigning preposition:[11]

(2) *Cartea   este pe masă   (*pe masa).*   (GALR 2005: 77)
     book-ART.FEM.DIR is   on table.DIR   on table-DEF.FEM.DIR
     'The book is on the table.'

Notice that *masă*'s semantic definiteness is unambiguous, as we would obligatorily have (3) if it was indefinite:

(3) *Cartea   este pe o   masă.*
     book-DEF.FEM.DIR is   on a.FEM.DIR table.DIR
     'The book is on a table.'

In the same context, modified definite nouns have to be articulated:

(4) *Cartea   este pe masa   (*pe masă)   din colţ.* (GALR 2005:77)
     book-DEF.FEM.DIR   is on table-DEF.FEM.DIR on table.DIR from corner

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[11] We leave exceptional *cu* 'with' aside: cf. *cu acul ~ cu ac* 'with the needle'.

'The book is on the table in the corner.'

Now, the crucial fact is that unmodified definite nouns governed by OBL-assigning prepositions must be articulated:

(5)   *O*   *luptă*   *împotriva duşmanului*   *(*duşman)* (GALR 2005:77)
       a.FEM.DIR battle.DIR   against   enemy-DEF.MASC.OBL   enemy
       'A battle against the enemy'

The only way to make sense of such data, it seems, is to assume that articulation is required in (5) in order to manifest the oblique case the bare masculine *duşman* cannot express. The difficulty with this account is that feminine nouns, although they manifest oblique case in the singular, behave the same: cf. *pe masă* vs. **pe masa*, but *deasupra mesei* /over table.FEM.OBL-DEF.FEM.OBL/ 'over the table'vs. **deasupra mese* /over table.FEM.OBL/.

What this points to is that the problem with OBL expression is even more general: OBL cannot be realized on fully bare nouns, by which I mean unarticulated nouns not in the scope of some inflectable determiner such as *acest* 'this', *un* 'a', *vreun* 'any', etc. (GALR 2005: 615). I will return to this at first sight puzzling fact.

Given this, the morphological problem lies entirely in the feminine declension: how do we account synchronically for the syncretism of OBL.SG with DIR/OBL.PL? And what is the default status of Romanian cases? Is DIR or OBL default? Unlike in Old French, there does not seem to be external evidence for deciding one way or the other. I will therefore delay a tentative answer until we come to the actual synchronic analysis of the Romanian declension.

6. TAKING STOCK

Let me state again the two questions we wish to answer:
1. How do we account for the marking "reversal" according to Number in Old French M1?
2. How do we account for the syncretism of OBL.SG with DIR/OBL.PL in Romanian feminine nouns?

My proposal, as mentioned, is that the answer to these questions requires assuming a special type of paradigm organization. Before I can begin to lay out what I mean by that, however, three alternative accounts must be envisaged.

7. A FIRST POSSIBLE ALTERNATIVE: POLARITY

Polarity is intimately linked with the notion of "reversal", i.e. the fact for one and the same exponent to express opposite values of the same feature depending on what contains it. As already pointed out, Old French *-s* could be considered typical in this respect, since it seems to be associated with SC in the singular, but with OC in the plural, thus ranging over the only two possible values of the case feature in the language. Whether it does express OC in the plural, however, is not so obvious, as we saw. Things are even less clearcut in Romanian, but it is still a fact that *-e* or *-i* (possibly plus umlaut) are associated with OBL in the singular, but also with DIR in the plural, so there might be some measure of reversal. It is worthwhile, therefore, to examine whether Old French and Romanian data can really be compared with well-known cases where polarity is commonly invoked.

Classical examples for polarity come from the Semitic languages, e.g. Standard Arabic where numerals from 3 to 10 modifying feminine nouns appear in the base form usually associated with masculine items whereas the same numerals modifying masculine nouns show the suffix *-a(t)*, otherwise attached to feminine adjectives and nouns. Compare (6) and (7) below (Badawi *et al.* 2004:260):[12]

(6)   *xamsu   muma<u>tt</u>ilatin wa-xamsatu muma<u>tt</u>iliina*
      five.MASC actresses   and five.FEM actors
      'five actresses and five actors'
(7)   *muma<u>tt</u>ilatun jadiidatun wa-muma<u>tt</u>ilun jadiidun*
      actress   new.FEM   and actor   new.MASC
      'a new actress and a new actor'

Baerman (2007b: 14−16) points to a similar phenomenon in Tübatulabal: in about thirty verbs the reduplicated stem otherwise expressing telicity is used to express atelicity, whereas the usually atelic basic stem expresses telicity. Hence a mirror effect – A instead of B and B instead of A – which is the hallmark of polarity.

There are at least two crucial differences between Standard Arabic numerals and Tübatulabal stems, on the one hand, and Old French M1 and Romanian feminines, on the other hand. First, in Standard Arabic and Tübatulabal we see one feature value with two alternative expressions: *-a(t)* or nothing for {GENDER *feminine*} and conversely nothing or *-a(t)* for {GENDER *masculine*} in the former; basic or reduplicated stem for atelic and conversely reduplicated or basic stem for telic in the latter. Old French's lone exponent *-s* goes the other way if we take defaultness into account, as it actually expresses either one of the two nondefault values of case and number, i.e. SC or plural, depending on the cell it appears in in the M1 paradigm. Likewise, even though it is not yet clear what *-i*/*-e* expresses in

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[12] The inventor of polarity was Carl Meinhof almost a century ago (1912). And see Speiser (1938).

Romanian feminines, we stand in the same configuration of one exponent with more than one value, rather than one value with more than one exponent.[13]

The second difference has to do with generality. In Standard Arabic and Tübatulabal only a small portion of the lexicon (eight items in the former, 30-ish in the latter) exhibits unconventional reverse marking. In Old French, -*s* is present in all paradigms, and it is only in F1 and the small MVS and FVS declensions that it is variably or always assigned to uniquely expressing the plural value of the number feature. In Romanian as well all feminine nouns and adjectives decline according to the same pattern.

Polarity is therefore excluded as a possible account for the Old French and Romanian data since it requires two exponents (where Old French and Romanian only show one) as well as two lexical sets for the mirror effect to happen.

8. A SECOND POSSIBLE ALTERNATIVE: DEPONENCY

Deponency is aptly defined as a "mismatch between form and function" (Baerman 2007b), prototypically exemplified by Latin deponent verbs, in which a passive form fulfills an active function: cf. *loquor* 'I speak' vs. *amor* 'I am loved'. Implicit in deponency is the notion that form *m* usually serves function *f*, but for a subset of items where it serves function *f'*, in complementary distribution with *f* (as is the case of passive with respect to active).[14] A crucial consequence of deponency is that the deponently used form can no longer fulfil its normal function, meaning that *loquor* cannot be passivized (**loquoror*) to mean 'be spoken'.

Within a deponency account of Old French M1, we might want to say that -*s* is normally a plurality marker as in written Modern French – which it indeed is in Old French F1 – so SC.SG *murs* 'wall' would count as deponent since it is singular despite its plural form. It is not the case, however, that -*s* uniquely expresses plurality in a majority of nouns in Old French. Such a move would therefore put us in the predicament that we could equally well define -*s*'s normal function as that of an SC marker, so it is now OC.PL *murs* 'walls' that would appear to be deponent, as it fulfills the object function despite being marked as a subject. Notice we have no choice as to the respective values PL and SC of the realized features given default relations. Moreover, unlike Latin deponent verbs, M1 exhibits a complete paradigm: would-be number-deponent *murs* 'wall' has a plural (*mur*), and would-be case-deponent *murs* 'walls' can be given a subject form (also *mur*). Viewing Old French M1 as a case of deponency does not therefore look like a feasible option.

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[13] Weigel (1993) already pointed out this difference between polarity and the third possibility to be examined below, viz. toggling.

[14] "deponency can be identified only by comparison with the majority of lexemes" (Corbett 2007b: 29).

The same objection can be raised against a deponency account of the Romanian feminine declension: *cărți*, e.g., could equally well and arbitrarily be considered number-deponent (singular with a plural form) or case-deponent (OBL with a form that also serves for DIR); unlike *loquor*, it is not functionally blocked as revealed, e.g., by articulation: cf. *cărții*, *cărțile*, *cărților*.

9. A THIRD POSSIBLE ALTERNATIVE: TOGGLING

This alternative will detain us longer than the foregoing two because, although inadequate as well, it actually sails closer to what will eventually prove the best candidate to being the right solution.

"Toggle" entered morphological terminology rather recently. It was first coined, it seems, by William Weigel in a 1993 paper.[15] Here, I will illustrate toggling with an especially clear example from the Kiowa-Tanoan language Jemez and its so-called "inverse number" or "number toggling".[16] In Jemez, to quote Mithun (1999: 81), "There is only one number suffix -*sh*, but its meaning appears at first unsteady, sometimes marking plurals, sometimes duals, sometimes singulars. It actually marks nouns in the 'unexpected' or inverse number." To put it in a nutshell, count nouns in Jemez come with an "inherent" or "expected" number depending on their class (animate or inanimate, the latter divided into two classes). When the noun is used with the expected number, it is nonmarked; when used otherwise, it is marked with -*sh* no matter whether the unexpected number is singular, dual, or plural.

Let us rephrase "expected" as "default". The conclusion is straightforward: far from being unsteady, -*sh* has a stable meaning, namely the nondefault number value associated with the noun's class. In that way, -*sh* can be meaningfully compared with, say, the ¶ button on my computer screen that means "show ¶" or "delete ¶" depending on whether my current text already shows the sign or not. Both share the toggle property.[17]

A toggle morpheme can therefore be defined as a morpheme that switches the value of the feature it expresses from plus to minus and vice versa according to properties of the base it attaches to. Although intriguing and attractive at first sight, the necessity of such an odd linguistic entity comes under serious doubt the moment one realizes it is entirely a consequence of the assumption that morphemes exist as separate form-meaning associations. In other words, it follows from a

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[15] The oldest use of the device is perhaps to be found in Ramón Llull's (1232−1316) *Ars Magna*, in which the letter T (!) in a formula switches the reference of the following letters (see Eco 1994, Chapter 4). Baerman (2007a) demonstrates a relationship between toggling and reversal or polarity.

[16] Weigel (1993: 468−469) gives a very similar example from Kiowa. The morphophonemics of Kiowa look rather complex, however, which is why I choose Jemez instead.

[17] Weigel confesses to having borrowed the term from "computer jargon" (Weigel 1993: 477).

constructivist (Blevins 2006) or incremental (Stump 2001) view of morphological processes, according to which inflected words result from the addition to denotational lexical items of inflectional morphemes that are themselves lexical items fully similar to their hosts except for being provided with nondenotational, "grammatical" meanings.

Does a nonconstructivist, that is abstractive (Blevins 2006) or realizational (Stump 2001) view need toggling? The answer is clearly "no". In such a framework, "words are regarded as complex configurations of recurrent elements whose specific PATTERNS OF COMBINATION may be meaningful irrespective of whether any particular piece bears a discrete meaning" (Ackerman *et al.* 2009: 58, original emphasis). Jemez -*sh* is therefore not an autonomous entity with a meaning, it is just a segment in a noun form whose presence signals that the said noun form does not convey the expected or default number value given its noun class. All we need, therefore, are the following two exponence rules (see Ackerman, Stump 2004 for the formalism):

(8) $X_{N\alpha}$ σ {NUM +*df*} $\Rightarrow X$
(9) $X_{N\alpha}$ σ {NUM –*df*} $\Rightarrow Xsh$

In (8) and (9), X is a lexeme categorized as a noun (N), and α is either one of the three count noun classes. Rule (8) says that a lexeme X is realized as no more than the phonological form of its root *X* whenever number is set at its default (+*df*) value given α. According to rule (9), it is realized as *Xsh* when number is nondefault *(–df)* given α. On the other hand, there is a provision in the grammar to the effect that, if the nominal lexeme X denotes an animate, α = I, and the default (inherent) number is singular, whereas dual and plural are nondefault. If it denotes an inanimate, α = II or III. If II, plural is the default for number, and singular and dual are nondefault; if III, singular and plural are default, and dual is nondefault.[18]
For instance, Class I *ʔǿwa* means 'woman' and *ʔǿwash* means 'women' (two or more); Class II *dáábæ* means 'chairs' (more than two) and *dáábæsh* means 'chair' or 'two chairs'; Class III *dééde* means 'shirt' or 'shirts' (more than two) and *déédesh* means 'two shirts'.

Another way of formulating this description is to say that Class I nouns distinguish nonmarked singular from marked nonsingular, although not dual from plural in the nonsingular; Class II nouns distinguish nonmarked plural from marked nonplural, although not singular from dual in the nonplural; Class III nouns distinguish nonmarked nondual from marked dual, although not singular from

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[18] Mass nouns (class IV) semantically exclude number and are not marked for it. Since noun class is not apparent in the stem and the class of nouns denoting inanimates is not predictable from lexical meaning, the Jemez noun class system does not look deeply different from the French gender system. Mithun (1999: 81−82) gives a partial semantic rationale for the assignment of nouns to classes and their correlated inherent number.

plural in the nondual. Except for dual marking, one might be tempted, therefore, to compare Jemez Class III nouns with English nouns such as *sheep* which may refer to one or several exemplars.

The upshot of such a line of thought is that the Jemez system is in fact amenable to an account in terms of syncretism, a clearly nonexotic phenomenon. Syncretism has already been defined in the Introduction. What we should now add is that, as noted by Corbett (2007b: 32), it is a crucial property of syncretism that the syncretic form "retains 'original' function". That is to say, despite 1SG-3PL formal merger, Romanian *tac* is used to say 'I keep silent' and 'they keep silent', just like those verbs for which the two persons-numbers are formally distinct: e.g., *lucrez* 'I work' and *lucrează* 'they work'. Likewise, even though English *sheep* makes no formal number contrast, it occurs in contexts where its number value is not ambiguous: e.g. *two sheep have escaped* (Huddleston, Pullum 2002: 1588).

In Jemez, all the number values that do not show on the nouns are retrieved through agreement of pronominal prefixes on the verb heading the predicate (see Mithun 1999:82). In both cases, we are dealing with semantic agreement, meaning that the relevant features are present, although syncretized, in the controller (Wechsler, Zlatić 2003; Corbett 2006: 155ff.).

It says a lot in favour of the abstractive approach to morphology, I believe, that it allows one to reach such a simple account, without recourse to exotic devices such as toggles, whose fictitious existence is entirely a product of the attempt to maintain constructivism.

Having thus dismissed polarity and deponency as inapplicable and toggling as a mistaken interpretation of syncretism, I will now turn to the latter in order to attempt the long-awaited synchronic account of Old French and Romanian declensions[19].

10. A DEFAULT-SYNCRETIC ACCOUNT OF THE OLD FRENCH M1 DECLENSION

Consider a crucial difference between Jemez -*sh* and Old French -*s*: the various occurrences of the former do not belong to the same paradigm, whereas those of the latter do. As already pointed out, this is syncretism, making the postulation of toggles superfluous, ultimately for the reason that Old French -*s*, like Jemez -*sh*, only exists as part of "recombinant gestalts" (Ackerman *et al.* 2009: 58) which it identifies as cells in a paradigm. Rules of referral are the formal tool to deal with syncretism (Stump 2001:36-37).

There is still a difference, though. Exponence rules (8) and (9) above have explanatory value: they characterize the Jemez number marking system and make it understandable. Consider now the following exponence rules for the M1 paradigm in Table 1:

[19] For the sake of simplicity I will henceforth only consider nouns.

(10) X_{NM1} σ {CASE *s* NUM *sg*} $\Rightarrow Xs$
(11) X_{NM1} σ {CASE *o* NUM *sg*} $\Rightarrow X$
(12) X_{NM1} σ {CASE *s* NUM *pl*} $\Rightarrow X$
(13) X_{NM1} σ {CASE *o* NUM *pl*} $\Rightarrow Xs$

Clearly these four rules achieve little more than formally restating the bare facts, perhaps making the syncretism of (10) and (13) and of (11) and (12) a bit more conspicuous. Our next step then is to formalize the syncretism through two rules of referral (Stump 2001: 46; Bonami, Stump to appear):

(14) Where L is a noun and belongs to M1, if PF (⟨L, σ{CASE *s* NUM *sg*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ{CASE *o* NUM *pl*}⟩) = ⟨Y, σ⟩.
(15) Where L is a noun and belongs to M1, if PF (⟨L, σ{CASE *o* NUM *sg*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ{CASE *s* NUM *pl*}⟩) = ⟨Y, σ⟩.

Rules (14) and (15) are stated in terms of paradigm functions (PF) which assign a realization Y to a cell in the paradigm of lexeme L. What they say is that, in the M1 declension, the cell hosting the feature set "singular subject case" (SC.SG) is always realized like the cell hosting the feature set "plural object case" (OC.PL); and the cell hosting the feature set "singular object case" (OC.SG) is always realized like the cell hosting the feature set "plural subject case" (SC.PL).

The question now is: What kind of syncretism are we dealing with? Arbitrary (stipulated) or motivated (unstipulated)? Clearly, SC.SG / OC.PL and OC.SG / SC.PL do not form a natural class in the way Romanian *lucrează* 's/he works' and *lucrează* 'they work', both 3rd person forms, do. Their identical realization would therefore be an instance of semantically arbitrary syncretism, like Romanian *tac* 'I am silent' or 'they are silent'.

This does not seem appropriate either, though, for it fails to address the crucial fact that SC.SG / OC.PL and OC.SG / SC.PL do not form a natural class not simply because they are entirely different, but because they are the exact opposite, the mirror images of each other in terms of default. There is therefore a specific relationship, unlike in arbitrary syncretisms, although not that of forming a natural class as in motivated syncretisms.

My proposal is that the default value itself anchors that specific relationship. This is made evident if we rewrite exponence rules (10)-(13) substituting default and nondefault to the case-number value labels, thereby defining them exhaustively given the binarity of the values. Should we capitalize on the fact that, by its very nature, default need not be specified, so we could leave features with default value unmentioned? I think not, because Old French declensions pattern in such a way that we need to be able to formally distinguish default from outright absence. I will therefore overtly mention features with default (+df) value as well as features with nondefault (–df) value:

(16) X_{NM1} σ {CASE $-df$ NUM $+df$} $\Rightarrow Xs$ (SC.SG)
(17) X_{NM1} σ {CASE $+df$ NUM $+df$} $\Rightarrow X$ (OC.SG)
(18) X_{NM1} σ {CASE $-df$ NUM $-df$} $\Rightarrow X$ (SC.PL)
(19) X_{NM1} σ {CASE $+df$ NUM $-df$} $\Rightarrow Xs$ (OC.PL)

Presenting the data in this way gives us an immediate rationale for the syncretisms: forms including case and number features with equal default values, all default (17) or all nondefault (18), are syncretic; and so are forms including only one feature with nondefault value, i.e. (16) and (19). M1 syncretism is DEFAULT SYNCRETISM.

The two rules of referral (14) and (15) ought therefore to be rewritten as follows:

(20)   Where L, a noun, belongs to M1, if PF (⟨L, σ {CASE $-df$ NUM $+df$}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ {CASE $+df$ NUM $-df$}⟩) = ⟨Y, σ⟩.

(21)   Where L, a noun, belongs to M1, if PF (⟨L, σ{CASE $+df$ NUM $+df$}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ{CASE $-df$ NUM $-df$}⟩) = ⟨Y, σ⟩.

We are getting closer to an explanation, but we are not yet there. Why such mergers? Notice that showing same or opposite values for default certainly does not set up natural classes – or they would be so large as to be meaningless. What we are dealing with is LOGICAL equality or inequality.

I will build on this observation to suggest that the M1 patterning is a necessary consequence of the grammatical challenge Old French was facing: to preserve the two-way distinction of case and number – hence a four-cells paradigm – with only one exponent.

Consider the seven tables below:

Table 7

	Singular	Plural
C1	X	Xa
C2	X	Xa

Table 8

	Singular	Plural
C1	X	X
C2	Xa	Xa

Table 9

	Singular	Plural
C1	X	Xa
C2	Xa	Xa

Table 10

	Singular	Plural
C1	Xa	Xa
C2	X	Xa

Table 11

	Singular	Plural
C1	X	X
C2		Xa
	X	

Table 12

	Singular	Plural
C1	X	Xa
C2	Xa	X

Table 13

	Singular	Plural
C1		X
	Xa	
C2	X	Xa

They show a subset of the possible organizations of a four-cells case-number paradigm including a base form *X* and an inflected form *Xa* showing the lone exponent *a*.[20] In Table 7, there is a number contrast *X* vs. *Xa*, but no case contrast. It is the reverse in 8: case contrast *X* vs. *Xa*, but no number contrast. Neither patterning answers the challenge.[21] Table 9 is more complex: it shows a Case contrast *X* vs. *Xa* in the singular and a number contrast *X* vs. *Xa* for the singular base form *X*, but no case contrast in the plural and no number contrast for the singular inflected form *Xa*. We shall see below that Table 9 is adequate to account for the Romanian feminine declension. I come back to Tables (10) and (11) in Appendix I as they happen to account for two of the Old French paradigms besides M1.

Finally, either Table 12 or 13 can be considered the best answer to the challenge for Old French. Given the relation of defaultness to marking, it is Table 13 that is actually up to the role, providing for a case contrast *Xa* vs. *X* in the singular and *X* vs. *Xa* in the plural, as well as for a number contrast *Xa* vs. *X* and *X* vs. *Xa* for each case form. Ensuring the contrasts, however, comes at the cost of the syncretisms exposed in Table 13, entailing – here is the fragility of the system –

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[20] I only drew up those patterns that have relevance for the matter at hand.

[21] Actually, Table 7 gives the paradigm for the Old French F1 declension and for all nouns in written Modern French and other Romance languages except Romanian. I am not aware of languages making distinctions for case but not at all for number.

that case is not distinguished when number is different (**C1**.SG = **C2**.PL), and number is not distinguished when case is different (C2.**SG** = C1.**PL**).

Another snag, equally unavoidable given the overall pattern, is having the maximally nondefault form, SC.PL, nonmarked, in blatant violation of the usual default-marking correspondence. It certainly comes as a surprise, and it may be another breaking point in the system, but there is no helping it since marking SC.PL would put us in the fully different pattern of Table 10, and double marking (*Xaa* or *murss), although theoretically possible *modulo* epenthesis (see above), was never an option in Old French, or so it seems. Table 13's pattern has at least the advantage over Table 12 that the maximally default OC.SG is indeed nonmarked, and the two partially nondefault SC.SG and OC.PL are marked, which leaves only one deviation from the expected correspondences.

Not only does the present account show that things could not be different given the input conditions – in which respect it IS an explanation – but it has a merit arising from its WP character: it dispenses us with wondering whether and where the lone exponent *a*, i.e. -*s*, is a case or a number marker. The question simply does not make sense from our perspective: -*s*'s presence in the word-form makes the case AND number distinction according to the only possible pattern given its loneness, and that's all there is to it.

To recap, syncretism does indeed provide the right account for the Old French M1 declension. It is a particular, perhaps rare instance of syncretism, however, neither arbitrary nor semantically driven, but determined by the initial conditions – two distinctions to be ensured with one exponent – and default specifications. This is why I call it "default syncretism", although qualifiers such as "logical" or "necessary" would fit it equally well.

11. A DEFAULT-SYNCRETIC ACCOUNT OF THE ROMANIAN FEMININE DECLENSION

As mentioned above, Table 9, given again below, schematizes the Romanian feminine declension.

Table 9

	Singular	Plural
C1	X	Xa
C2	Xa	Xa

As we saw as well, there is no decisive external evidence concerning the respective defaultness status of the two cases DIR and OBL. Because of this and considering that oblique cases such as genitive and dative generally count as nondefault with respect to the direct cases nominative and accusative, I will make the null assumption that DIR is default – and that's the crucial difference with Old French.

With this assumption, exponence rules (16)-(19) for Old French can be straightforwardly adapted to Romanian as in (22)-(25), where y ranges over the various exponences that join to feminine stems and X in (22) includes final /ă/ or /e/ substituted by y in the other cells (cf. /cas-ă/ vs. /cas-e/, /cart-e/ vs. /cărț-i/):

(22) X_F σ {CASE $+df$ NUM $+df$} $\Rightarrow X$ (DIR.SG)
(23) X_F σ {CASE $-df$ NUM $+df$} $\Rightarrow Xy$ (OBL.SG)
(24) X_F σ {CASE $+df$ NUM $-df$} $\Rightarrow Xy$ (DIR.PL)
(25) X_F σ {CASE $-df$ NUM $-df$} $\Rightarrow Xy$ (OBL.PL)

The conclusion is easily read off the rule array: the Romanian feminine declension shows syncretism of all forms (paradigm cells) that include a nondefault value for at least one feature. This is what makes the entirely default DIR.SG form stand out. Default syncretism is at work again, as in Old French, with another case system and distinct defaultness assignments, therefore a different outcome.

In the double rule of referral (26) I assume directionality from DIR.PL to OBL.SG and OBL.PL. This makes sense, I believe, since the basic contrast is between DIR.SG and DIR.PL (cf. *casă* / *case* vs. *carte* / *cărți*), so it must be the OBL.SG form that is identical to DIR.PL, not the other way around.

(26) Where L, a noun, is feminine, if PF ($\langle$L, σ {CASE $+df$ NUM $-df$}$\rangle$) = $\langle$Y, σ$\rangle$, then PF ($\langle$L, σ {CASE $-df$ NUM $+df$}$\rangle$) = $\langle$Y, σ$\rangle$ and PF ($\langle$L, σ {CASE $-df$ NUM $-df$}$\rangle$) = $\langle$Y, σ$\rangle$.

In terms of contrast maintenance, the Romanian system seems less efficient than the Old French one: only one case contrasts overtly, and the number contrast is not ensured in OBL. This is more than compensated, however, by the fact that OBL is obligatorily either articulated or also marked on some determiner of the noun. Although a virtual possibility, it thus never actually happens that, say, OBL.SG *cărți* could be mistaken for the homophonous DIR.PL, because it will always appear as either *cărții* 'of/to the book' or in a phrase such as *unei cărți* 'of/to a book'. Notice that the articulated feminine paradigm, given again below (cf. Table 8), is canonical in the sense of Corbett (2007a), i.e. every cell is distinct from all others:

Table 14

Romanian articulated feminine declension

	Singular	Plural
DIR	*cartea*	*cărțile*
OBL	*cărții*	*cărților*

12. CONCLUSION

Default syncretism, i.e. motivated syncretism driven by the defaultness values of the features rather than their meanings, seems to be a rare phenomenon. Cross-linguistic investigations are of course necessary to support or contradict that hunch. Let us assume it is right. Why would that be so? My assumption would be that default syncretism is rare because it is related to another infrequent state of affairs which I propose to call "depleted" inflection.

Most Indo-European languages alive and extinct – to set cautious limits to my reasoning – belong to either one of two types as far as noun inflection is concerned: rich and minimal. Minimal is when nouns inflect for number only as in the Romance languages except Old French/Old Occitan and Romanian; rich is when nouns inflect for case and number as in Latin.

As I take it, rich inflection does not necessarily imply paradigms with as many cells as in Latin. What it does imply is that the ratio of exponents to paradigm cells should not be too low. For instance, Modern Irish nouns inflect for only three cases in the two numbers: common (COM), genitive (GEN) and vocative (VOC), hence six-cells paradigms (The Christian Brothers 1980: 26−32). Yet, masculine nouns ending in a broad (not palatalized) consonant with a weak (not suffixal) genitive in the plural show four distinct exponents besides the base form of COM.SG (e.g. *cat* 'cat'): initial consonant aspiration plus final consonant attenuation (palatalization) in GEN.SG and VOC.SG (*chait* '(of the) cat', 'cat!'); final consonant attenuation in COM.PL (*cait* 'cats'); initial consonant eclipsis (here voicing) in GEN.PL (*gcat* '(of the) cats'); initial consonant aspiration plus /a/ suffix in VOC.PL (*chata* 'cats!'). This makes for a near-canonical paradigm:

Table 15

Modern Irish declension of masculine nouns ending in a broad consonant

	singular	plural
common	*cat*	*cait*
genitive	*chait*	*gcat*
vocative	*chait*	*chata*

The Old French/Old Occitan and Romanian feminine declensions belong to neither type: they are not minimal since they involve case and number distinctions, but they cannot be considered rich given the dearth of exponents they suffer from, namely one for four cells. Calling them depleted seems adequate as they both result from evolution of a rich system (Latin) towards a minimal system. The evolution went to completion in Old French/ Old Occitan as soon as the fourteenth century.[22] It seems to be well advanced in colloquial Romanian, despite reluctant acknowledgement from learned circles (see GBLR 2010: 64).

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[22] The beginning of the fifteenth century in the Picard dialect. A few relics of a declension are also found in early Rheto-Romance.

Appendix I: A (nearly) complete formal account of the Old French declensions

I.1. *Metageneralizations over paradigms*
SC is the nondefault value for case and plural the nondefault value for number. The latter specification is a good candidate to universality, whereas the former seems to be highly language-particular. I propose we express both specifications by means of the following Feature Specification Defaults (FSD's) (Gazdar *et al.* 1985:29ff.):

(27)   FSD 1: CASE *OC*
(28)   FSD 2: NUM *SG*

I.2. *M1*
M1 is exhaustively described by the following rule block of four exponence rules (see [16]-[19]):

(29) X_{NM1} σ {CASE *–df* NUM *+df*} $\Rightarrow$ *Xs* (SC.SG)
(30) X_{NM1} σ {CASE *+df* NUM *–df*} $\Rightarrow$ *Xs* (OC.PL)
(31) X_{NM1} σ {CASE *+df* NUM *+df*} $\Rightarrow$ *X* (OC.SG)
(32) X_{NM1} σ {CASE *–df* NUM *–df*} $\Rightarrow$ *X*   (SC.PL)

I give again the two rules of referral that formalize the syncretism:

(33)   Where L, a noun, belongs to M1, if PF (⟨L, σ {CASE *–df* NUM *+df*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ {CASE *+df* NUM *–df*}⟩) = ⟨Y, σ⟩.
(34)   Where L, a noun, belongs to M1, if PF (⟨L, σ{CASE *+df* NUM *+df*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ {CASE *–df* NUM *–df*}⟩) = ⟨Y, σ⟩.

I.3. *M2*
M2 (see Table 2) corresponds to Table 11 above. It can be view as a variant of M1 (Table 13) assuming directional syncretism from OC.SG to SC.SG. We therefore add the following rule of referral to (33) and (34):

(35)   Where L, a noun, belongs to M2, if PF (⟨L, σ{CASE *+df* NUM *+df*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ{CASE *–df* NUM *+df*}⟩) = ⟨Y, σ⟩.

This has the effect of replacing (29) by (29'), without modifying the other rules:

(29') X_{NM2} σ {CASE *–df* NUM *+df*} $\Rightarrow$ *X* (SC.SG)

The three syncretisms thus add up to single out OC.PL as the only marked form.
Since marking is then assumedly for number, it would seem that M2 simply does not contrast case. If it were so, it would allow us to collapse the M2 paradigm to two cells, *pere* 'father' vs. *peres* 'fathers', making it similar to the F1 paradigm (see below), and to dispense with syncretism. Such a move is not feasible, however, for two reasons. First, there is the fact that M2 quite often merges with M1 – a process that amounts to removing (34) from the grammar and reinstating (28) – which suggests that case contrasts were active in M2 in the speakers' competence. Then there is agreement: cf. *li pere*, with *li* the SC form of the definite article contrasting with OC *le* in the singular (*le pere*) and OC *les* in the plural (*les peres*). (Contrary to what we assumed for Romanian, joining the definite article with the noun is a syntactic, not a morphological operation in Old French.)

I.4. *MVS*

The only, although spectacular, difference between M1 and MVS is to do with the special stem that appears in the SC.SG cell (see Table 4). Given the phonological difference between it and that in the other cells – possibly greater than in the example: cf. *prestre(s)* / *prevoire* 'priest' – and the unpredictability of the form the difference will take, there is little doubt we are synchronically dealing with suppletion here. That is to say, /ber/ is the suppletive stem for the SC.SG cell of the declensional paradigm of the lexeme that may be notated as BARON. We therefore write the two following stem selection rules:

(36)   **Stem** ($\langle$BARON$_{MVS}$, σ {U}$\rangle$) = $\langle$*baron*, σ$\rangle$

(37)   **Stem** ($\langle$BARON$_{MVS}$, σ {CASE –*df* NUM +*df*}$\rangle$) = $\langle$*ber*, σ$\rangle$

Rule (37) will take effect whenever the morphosyntactic feature set associated with the lexeme is specified as shown. Being narrower, i.e. more specific than (36) whose feature set is unspecified (U) – meaning it can be any attribute-value pairs fitting the lexeme BUT those mentioned in (37) – (37) always takes precedence according to Panini's principle.

The special stem given by (37) may suffice to mark off SC.SG from the other forms, or it may be supplemented with -*s* (*bers*). Such a state of affairs dovetails perfectly with Stump's (2001:208-211) discussion of portmanteau stem-selection rules. According to whether (37) is a portmanteau or an ordinary rule, the suppletive stem *ber* assumes by itself the realization of the relevant morphosyntactic features, as English *was* does, or it feeds rule (29), hence *bers* /ber-s/ analogous to English *is* /i-s/ (Stump 2001:208-211).

I.5. *F1(a)*

Unlike M2, F1 really consists in a two-cells paradigm: e.g. *la porte* 'the door' vs. *les portes* 'the doors' solely expressing a number contrast. We therefore need no more than exponence rules (38) and (39):

(38)   X$_{NF1}$ σ {NUM +*df*} $\Rightarrow$ *X*

(39)   X$_{NF1}$ σ {NUM –*df*} $\Rightarrow$ *Xs*

Case is not mentioned in these two rules because it is not expressed by F1 nouns. (Notice the feminine definite article *la* / *les* does not inflect for case either.)

F1a nouns like *charre* do not inflect for any feature (*la charre* 'the cartload' / *les charre* 'the cartloads') for historical reasons as explained in §3. Synchronically it means that only (38) applies to them, meaning that whatever features associate with the stem, the outcome is always the stem itself:

(38')   X$_{NF1a}$ σ {U} $\Rightarrow$ *X*

Notice this amounts to viewing F1a invariability as a purely morphological matter. *Charre* and like nouns, not being semantically or syntactically underspecified for number, are therefore compatible (unifiable) with the singular (*la*) as well as the plural form (*les*) of the feminine determiner.

I.6. *F2*

The F2 declension (see Table 5) corresponds to Table (10) above and it appears as the partial reverse of M2. It is therefore accounted for by a rule of referral that is somehow the symmetric of (35) in M2:

(40)   Where L, a noun, belongs to F2, if PF ($\langle$L, σ{CASE +*df* NUM –*df*}$\rangle$) = $\langle$Y, σ$\rangle$, then PF ($\langle$L, σ{CASE –*df* NUM –*df*}$\rangle$) = $\langle$Y, σ$\rangle$.

That is to say, I assume directional syncretism from OC.PL to SC.PL. The upshot is that case is effectively not contrasted in the plural, and we cannot lean on agreement as with M2 to assume it is nevertheless present, since, as we know, the feminine definite article *la* / *les* does not inflect for case. Moreover, as mentioned in §3.5, F2 usually merges with F1 by showing, e.g., *la flor* instead of *la flors* 'the flower'. The exponence rules accounting for F2 should therefore look as below:

(41) X_{NF2} σ {CASE *–df* NUM *+df*} $\Rightarrow$ *Xs* (SC.SG)
(42) X_{NF2} σ {CASE *+df* NUM *+df*} $\Rightarrow$ *X* (OC.SG)
(43) X_{NF2} σ {NUM *–df*} $\Rightarrow$ *Xs*   (PL)

(One sees here the advantage of being able to formally tell default from absence.)

I.7. *FVS*

Rules (41)-(43) for F2 also apply to FVS, with the difference that SC.SG is singled out, not by suffixing *-s*, but by showing a special stem like MVS (see Table 6). The option of additionally suffixing *-s* to the this special stem is not an open one in FVS, however.

I.8. *Putting it all together: some descriptive generalizations*

Comparing masculine (M1, M2, MVS) with feminine declensions (F1(a), F2, FVS) makes it apparent that case in the latter is either not expressed at all (F1(a)) or only in the singular (F2, FVS). In masculine declensions, in contrast, case is marked at both numbers, except in M2 where no overt case contrast is made in the singular. But M2 is an evanescent declension usually absorbed by M1. So is F2 by F1. And FVS does not amount to more than a handful of items.

      The core of the Old French declensional system, i.e. M1-MVS and F1, thus presents us with a neat divide: masculine nouns inflect for case and number; feminine nouns only inflect for number. Why is that so? Insofar as this state of affairs results from the history of the language, there is no answer to this "why". It just happened to come out that way given the initial conditions (the Vulgar Latin declensions) and the sound changes that upset them.

      Although there is no "why", there is still a "how", however. In other words, what we still can and must do is try and formalize this unexpected assignment in order to provide, if not an explanation, at least a rationale for it.

      In two-valued gender system such as Old French, feminine may be considered the nondefault value. In addition to general typological considerations, the following particular reasons bear on such an assumption: (i) Feminine gender is canonically associated with the dedicated ending /ə/, since feminines not ending with /ə/ (F2) and masculines ending with non-epenthetic /ə/ (M2) are outside the core of the system. (ii) Feminine nouns trigger overt agreement on variable attribute and predicate adjectives.

      There is therefore a relation between gender defaultness and inflection for case: nondefault gender implies no case inflection. Feature Cooccurrence Restrictions (FCR's) are the proper formal tool, I submit, to capture this relation particular to Old French (Gazdar *et al.* 1985: 27−29):

(44)   FCR 1: N{GENDER *–df*} $\supset$ CASE { }
(45)   FCR 2: N{GENDER *+df*} $\supset$ CASE {U}

FCR's 1 and 2 are defined over the Old French core system of M1 and F1. Following our conventions, empty brackets mean absence, whereas U ranges over all relevant values of the feature.

      What if we take noncore items into account? First, we must dismiss M2 since we concluded it does express case despite not inflecting overtly for it. An interesting observation then comes to the fore, namely that feminine nouns marking case in the singular (F2 and FVS) are precisely those that look phonologically like masculines in that they don't end with /ə/, *in toto* like *flor* or in part like the basic stem *nonain* compared to the special stem *none*.

Appendix II: A (nearly) complete formal account of the Romanian declensions

II.1. *Metageneralizations over paradigms*
DIR is the nondefault value for case and plural the nondefault value for number:

(46)   FSD 3: CASE *DIR*
(47)   FSD 4: NUM *SG*

II.2. *Masculine nouns*
Assuming that unarticulated masculines do express case despite global syncretism, we write the following four exponence rules and two rules of referral for the unarticulated masculine declension:

(48) X_{NM} σ {CASE +*df* NUM +*df*} $\Rightarrow X$ (DIR.SG)
(49) X_{NM} σ {CASE –*df* NUM +*df*} $\Rightarrow X$ (OBL.SG)
(50) X_{NM} σ {CASE +*df* NUM –*df*} $\Rightarrow Xi$ (DIR.PL)
(51) X_{NM1} σ {CASE –*df* NUM –*df*} $\Rightarrow Xi$ (OBL.PL)

(52)   Where L, a noun, is masculine, if PF (⟨L, σ {CASE +*df* NUM +*df*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ {CASE –*df* NUM +*df*}⟩) = ⟨Y, σ⟩.
(53)   Where L, a noun, is masculine, if PF (⟨L, σ{CASE +*df* NUM –*df*}⟩) = ⟨Y, σ⟩, then PF (⟨L, σ {CASE –*df* NUM –*df*}⟩) = ⟨Y, σ⟩.

The articulated masculine declension is accounted for by the four following rules of exponence:

(54) X_{NM} σ {CASE +*df* NUM +*df* DEF +} $\Rightarrow Xl$ (DIR.SG)
(55) X_{NM} σ {CASE –*df* NUM +*df* DEF +} $\Rightarrow Xlui$ (OBL.SG)
(56) X_{NM} σ {CASE +*df* NUM –*df* DEF +} $\Rightarrow Xii$ (DIR.PL)
(57) X_{NM1} σ {CASE –*df* NUM –*df* DEF +} $\Rightarrow Xilor$ (OBL.PL)

We also need stem selection rule (58) to account for the /u/-final stem involved in (54) and (55) for nouns whose basic stem ends in a consonant:

(58)   **Stem** (⟨$XC\#_{NM}$, σ {NUM +*df* DEF +}⟩) = ⟨*Xu*-, σ⟩

The -*le* form of the DIR.SG definite suffix following /e/-final stems as in *fratele* 'the brother' (to which [58] does not apply) is accounted for by a morphophonological rule. So is pluralization-induced palatalization as in *frate(le)* / *fraţi(i)* '(the) brother(s)'.

II.3. *Feminine nouns*
See (22)-(25) in §11. Umlaut and palatalization as in *carte* / *cărţi* 'book(s)', *fată* / *fete* 'girls' etc. are accounted for by morphophonological rules. The umlaut rule must be indexed for gender since, unlike palatalization, it only affects feminine nouns: compare *fraţi(i)* with *cărţi(le)*. Deletion of final /ă/ but not final /e/ before the definiteness exponent (cf. *fata* 'the girl' vs. *cartea* 'the book') is also a morphophonological phenomenon.
     We need specific stem selection rules for lexemes such as ZI 'day' showing unarticulated DIR.SG *zi*, other forms *zile*; articulated DIR.SG *ziua*, other forms *zile-i/le/lor*:

(59)   **Stem** (⟨ZI_{NF}, σ {CASE +*df* NUM +*df* DEF –}⟩) = ⟨*zi*, σ⟩
(60)   **Stem** (⟨ZI_{NF}, σ {CASE +*df* NUM +*df* DEF +}⟩) = ⟨*ziu*, σ⟩
(61)   **Stem** (⟨ZI_{NF}, σ {U}⟩) = ⟨*zile*, σ⟩
In (61), U means all case-number-definiteness values but those specified in narrower (59) and (60).

II.4. *Ambigeneric nouns*

They are accounted for by rules (48) and (49) in the singular, (24) and (25) in the plural. Whether *y* in DIR.PL and OBL.PL is /-e/ or /-uri/ has to be specified for each ambigeneric lexeme.

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