

Feminine and gender, or why the ‘Feminine’ profile of French nouns has nothing to do with gender

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This paper is an attempt at understanding certain facets of the gender system of French. It takes as its starting point an extremely interesting proposal put forth by M. Carme Picallo (Picallo 2007, 2008) relevant aspects of which are summed up in the first section.¹ In Section 2, I provide the necessary background on selected aspects of the gender system of French. Section 3 raises an issue in connection with the structural location of what most linguists have taken to be the manifestation of gender. In Section 4, I offer the ingredients of a solution to the paradox noted in the previous section. In Section 5, I lay the ground for a distinction between ‘feminine’ morphology and gender. Section 6 is devoted to a micro study, I/O alternations and what they tell us and can’t tell us about the gender system of French. In a brief conclusion, I indicate where French fits in Picallo’s typology: French gender is oblivious to information present in its complement. It does not behave as a probe.

1. Picallo (2007, 2008)

1.1. Three theses

In a vigorous plea for the status of a Class projection intermediate between those headed by Num and n, Picallo proposes that Gender is hosted by the head of ClassP, as in (1).

$$(1) \quad [_{\text{NumP}} \text{Num} [_{\text{ClassP}} \text{Gender} [_{\text{nP}} \text{n}]]]$$

Moreover Picallo makes two assumptions and one point (called Thesis 1, 2, and 3 below) all three of which I accept without discussion.

Thesis 1

Following Chomsky (1995), Picallo assumes that a noun such as X in (2) enters numeration fully equipped with Gender and Number specifications.

¹ For enlightening discussions of gender and gender-related issues, cf. Kihm (2005) and Percus (2010).

(2)

$$[\text{NumP Num } [\text{ClassP Gender } [\text{nP X } [\alpha \text{ Fem}], [\beta \text{ Plural}]]]]$$

Because Gender and Number are uninterpretable on *n*, they will have to be erased at Spellout.

Thesis 2

Gender is interpretable in ClassP, a point developed in Picallo (2007, 2008).

Thesis 3

Following Pesetsky and Torrego (2004), Picallo proposes that feature Valuation and Interpretability be construed as independent of each other. On that view, the four combinations in (3) necessarily arise:

(3)

- a. [unvalued, interpretable]
- b. [unvalued, uninterpretable]
- c. [valued, interpretable]
- d. [valued, uninterpretable]

Objects corresponding to the feature specifications in (3a) and (3b), being unvalued, can only be probes. Objects specified as in (3c) and (3d) can only be goals. Since I accept Thesis 2 above, I will restrict my attention to cases when ClassP is specified as in (3a) and (3c), that is the two cases when Gender is interpretable and acts either as a probe or not.

According to Picallo, Catalan and Spanish exemplify (3a). I reproduce Picallo's example of a Spanish feminine noun, *corbata* 'tie'. *corbata*, a feminine singular noun enters numeration specified as in (4), and Gender by hypothesis is unvalued, thus noted [\pm Fem].

(4)

$$[\text{ClassP Gender } [\text{nP corbat-a } [+Fem], [-Plural]]]$$

$$[\pm \text{Fem}]$$

Being unvalued, Gender probes into its c-commanding domain. Per *Agree*, viewed here as feature sharing, Gender acquires the value of its goal, (5).

(5)

$$[\text{ClassP Gender } [\text{nP corbat-a } [+Fem], [-Plural]]]$$

$$[+Fem]$$

The uninterpretable feature [+Fem] is subsequently erased on *n* (6), and ‘Feminine’, overt morphology – the final *a* of *corbat-a* in the case at hand – stays on, a point to be returned to momentarily.²

- (6)
- [_{ClassP} Gender [_{nP} corbat-a [~~+Fem~~], [-Plural]]]
- [+Fem]

One of the many attractive features of Picallo’s paper is the typology that emerges from her proposal. If the analysis of Catalan and Spanish proceeds along the lines of what has just been sketched out, the properties of a system in which Gen did not operate as a probe but rather started out as already valued for Class can emerge. Such properties would reflect the fact that the featural equipment of Gen owes nothing to the contents of its complement, *n*. Some such salient properties are listed in (7).

- (7)
- i. Gen may be realized by an independent lexeme
 - ii. Such a lexeme will be a prefix, not a suffix as Spanish *-a* and *-o*
 - iii. *n* would be unburdened with uninterpretable phi-features

Picallo construes the makeup of languages exhibiting noun-class markers such as are attested in the Bantu family as exemplifying (7), cf. the Sesotho sentence in (8) quoted by Picallo from Demuth (2003) with noun classes noted in Roman numerals:

- (8)
- | | | | | |
|-------------|----------|-----------|-------------|------------|
| ba-shányana | bá-né | bá-fúmáné | di-perekisi | tsé-monáte |
| II-boys | II-those | II-found | X-peaches | X-good |
- ‘Those boys found peaches that are tasty’

Sesotho appears to fit (7), with the class marker realizing Gen *in situ*, and no specific overt morphology on the stem itself, at least not of the *-o/-a* type of Spanish nouns.

Now, suppose a language had inherited from Latin all the trappings of a *bona fide* member of the Romance family (same stock of roots, same stock of affixes, etc.), but had lost the probe/goal connection. The lower system, *nP*, where overt morphology is realized in Romance would become completely autonomous with respect to GenP, the higher system which it no longer feeds. Concretely, this means that the match between overt morphology on *nP* and on gender would cease to be necessary (though it might still be observed where diachronic inertia

² Cf. Alexiadou and Müller (2005) for a probing scheme of a different kind.

prevailed). A parallel from Fisheries science comes to mind. At some point, for reasons unknown, a species of salmonids, now known as land-locked salmon, gave up the anadromous life cycle typical of salmon whereby they spend most of their lifetime in oceans and seas and only repair to fresh water streams for reproduction.³ Though completely cut off from the usual circuits, the species thrived. It still deceptively looks very much like a salmon, yet leads a life which is not the life of a salmon at all. My claim is that something similar happened to overt morphology on French nouns: it still looks very Romance, but in fact works like Sesotho. If I can establish this claim, the consequence will be that French Gen must enter numeration as fully valued. Before the evidence can be considered, the relationship between overt morphology of the -o/-a type of Spanish or the -ø/-a type of Catalan and uninterpretable feature [\pm Fem] has to be assessed. This is the topic of the next subsection.⁴

1.2. Overt morphology and [\pm Fem]

The overwhelming majority of Spanish nouns such as *corbata* ‘tie’ or *techo* ‘roof’ are feminine and masculine, respectively. Not all, however, thus *mano* ‘hand’ is feminine whereas *mapa* ‘map’ or *comunista* ‘communist’ are masculine. The fact that discrepancies between overt morphology and actual gender are repeatedly documented by means of the same examples in the literature shows that such exceptions are not excessively numerous. Nevertheless, the fit is not perfect. I suggest that overt morphology and actual gender (the value of the uninterpretable feature on *n*) be divorced as shown in (9).

(9)

	a.	b.	c.	d.
	mano	corbata	techo	mapa
Gender	[+Fem]	[+Fem]	[-Fem]	[-Fem]
Profile	[-F]	[+F]	[-F]	[+F]

³ Thanks to Steve McCormick of the Conte Anadromous Fish Research Center in Turners Falls, Mass. and the University of Massachusetts, Amherst for valuable information.

⁴ The deliberately rough elaboration to follow is by no means meant as a substantial contribution to the study of Spanish. Rather, the intention is to build a background against which it will be possible to bring out the contrasting behavior of the French system. For a detailed study, cf. Harris (1991) and a rejoinder to Harris (1991), cf. Bermúdez-Otero (2006).

[±Fem] is the uninterpretable feature which will ultimately be valued in Gen and will determine the outcome of concord. The meaning of [±F] will be made precise momentarily. For the time being, let us simply accept that it records the presence or absence of transparently overt morphology. Thus *mano* is [-F] on account of its masculine profile, and *mapa* is [+F] on account of its feminine profile. The claim is that knowing Spanish involves knowing the set of items displaying conflicting values for [Fem] and [F], not an overwhelmingly taxing burden on the memory of speakers though a possible source of temporary confusion for children and L2 learners. Indeed, apparent exceptions such as *mano* and *mapa*, as long as they are not overly numerous, are unproblematic. If anything, because they are so obviously ‘counterfaithful’, they only make the normal pattern more perspicuous. For the set under consideration, the *-o* and the *-a* classes, the redundancy inherent in (9) whereby [Fem] and [F] have the same value most of the time can be eliminated by leaving the value for [±Fem] unspecified and making it dependent on that of [F], as shown in (10).

(10)

	a.	b.	c.	d.
	mano	corbata	techo	mapa
Gender	[+Fem]	[Fem]	[Fem]	[-Fem]
Profile	[-F]	[+F]	[-F]	[+F]

More evasive are *-e* nouns such as (*la fase* ‘phase’ and (*el pase* ‘pass’ which provide no clue as to whether they are (or should be) masculine or feminine. As overt morphology is of no help in assessing Gender in such cases, [F] is non-valued and perhaps those nouns are learned *together with* the corresponding definite article, viz. *el-pase* and *la-fase*, so, that in the end speakers can provide [±Fem] with a fixed value, (11).

(11)

	a.	b.
	el-pase	la-fase
Gender	[-Fem]	[+Fem]
Profile	[F]	[F]

To sum up, the major classes of Spanish nouns can be characterized as in (12).

(12)

	a.	b.	c.
	‘faithful’	‘heretic’	‘agnostic’
	corbata, buso	mano, mapa	fase, pase
Gender	[α Fem]	[$-\alpha$ Fem]	[$\pm\alpha$ Fem]
Profile	[α F]	[α F]	[F]

I assume without further discussion, leaving an ultimate assessment to scholars of Spanish, that ‘agnostic’ behaviour has remained contained below a critical threshold in such manner that, by and large, learners can still trust faithfulness. That is, the shape of a noun is the first place where they look for help in assigning a value to [\pm Fem].

I now turn to the French evidence.⁵

2. Background on French and its gender system

Like Catalan and Spanish, French has two genders. This can easily be established on the basis of the behaviour of adjectives. While most French adjectives are invariable, e.g., [tšek] ‘Czech’, [rüs] ‘Russian’, [romãtik] ‘romantic’, [popüler] ‘popular’, [anonym] ‘anonymous’ (13a, b), a fair number of them nevertheless vary depending on properties of a noun present in their environment, e.g., [polonez]/[polone] ‘Polish’, [almãd]/[almã] ‘German’, [dus]/[du] ‘sweet’, [bulversãt]/[bulversã] ‘deeply moving’ (13c, d). It can be seen how the adjectives in (c, d) vary depending on the associated head noun, feminine [melodi] ‘melody’ or masculine [poem] ‘poem’.

(13)

- melodi tšek, rüs, romãtik, popüler, anonim
- poem tšek, rüs, romãtik, popüler, anonim
- melodi polonez/*polone, almãd/*almã, dus/*du, bulversãt/*bulversã
- poem polone/*polonez, almã/*almãd, du/*dus, bulversã/*bulversãt

While the task of learning Spanish gender can perhaps be roughly described as sketched out above, the French system has remained a considerable source of

⁵ French spelling being hopelessly confusing, the entirety of the French data mentioned in this paper is given in rough transcription. Forms thus given should therefore not be taken to stand for phonetic transcriptions. Indeed, some phonetic details (mostly having to do with the laxing of mid vowels, or the backness of low vowels) are irrelevant to the discussion and have accordingly been neglected. For instance, all the mid, front, unrounded vowels noted e in (13) are lax. Strictly speaking, they should have been noted ϵ .

puzzlement for investigators (and speakers, too!⁶).⁷ Corbett (1991) mentions the results of Tucker, Lambert and Rigault (1977) who claim that the ending of nouns can, to a certain extent, provide clues as to whether a noun is feminine or masculine. Consider in this respect a sample of a table showing the alleged correspondance between the gender of nouns and their final consonant (Tucker, Lambert and Rigault 1977: 40).

(14)

final segment	number of nouns	% MASC
ž	1453	94.2
t	2269	51.2
v	143	31.5

The striking feature of the figures in (14) is the variation in the percentages. Thus, one noun out of three is likely to be masculine if it ends in [v], the gender of a noun ending in [t] is entirely unpredictable, but a noun ending in [ž] is about as likely to be masculine as a Spanish noun ending in [o]. How could there be such uncertainty with [t] and [v] and near full predictability in the case of [ž]?

While I have not checked the edition of the *Petit Larousse* dictionary used by Tucker, Lambert and Rigault, I have consulted Juilland's reverse dictionary (Juilland 1965). Juilland records 1085 nouns ending in [ž], 368 less than Tucker, Lambert and Rigault. The *Petit Larousse* is updated yearly, and it can be supposed that Tucker, Lambert and Rigault used a fresh version. Did 368 nouns escape Juilland's notice, or did French acquire 368 new ž-final nouns in 15 years? If the former is unlikely, some productive process must be responsible for such a dramatic increase.

In fact, out of Juilland's 1085 ž-final nouns, 934 are actually nouns ending in the sequence [až]. 694 are nominalizations of verbs, e.g., [mõt-až] 'putting together' from verb [mõt] 'put together', [rãbur-až] 'reupholstering' from [rãbur] 'reupholster', etc. The remaining 240 are nouns such as [kuraž] 'courage', [domaž] 'damage', etc. Nouns of the latter group can not be broken into noun+až or adjective+až. However, under the view that affix +až selects either a root or a vP, much as English +ment (e.g., *segment* vs. *government*), all instances of French až-final nouns can be viewed as involving that affix. If this is correct, až-final nouns inasmuch as they involve the same affix should count for 1, not 934. When až-final nouns are left out, gender allotment for the 151 re-

⁶ For instance, this author, a native speaker of French, has no idea whether a noun as common as *apremidi* 'afternoon' is masculine or feminine.

⁷ Cf. Surridge and Lessard (2008) for an overview of the literature, and Holmes and Segui (2004, 2006) for valuable psycholinguistic results.

maining ž-final nouns is as unpredictable as was the case with t-final nouns, though with a slight advantage in favor of feminines: 69 only are masculine and 82 are feminine.⁸

Next to the fact that a very mixed picture arises depending on what is actually counted, French remains notorious for its floating word-final consonants. The phenomenon is usually described as follows: the floating consonant remains hidden in the masculine singular form of a noun or adjective (15a) but surfaces (underscored) when vowel-initial suffixes are added (15b) and, of critical interest in the context of this paper, when feminine nouns or adjectives are formed (15c). This typical presentation only partially covers the required ground, but is adequate for a first pass.

(15)

a.	b.	c.
masculine	derivative	feminine
[gro] ‘big’	[gro <u>s</u> -es] ‘pregnancy’	[gro <u>s</u>] ‘big, fem.’
[fre] ‘cool’	[fre <u>š</u> -œr] ‘freshness’	[fre <u>š</u>] ‘cool, fem.’
[lã] ‘slow’	[ralã <u>t</u> -ismã] ‘slowdown’	[lã <u>t</u>] ‘slow, fem.’
[ra] ‘cat’	[ra <u>t</u> -ier] ‘rat trap’	[ra <u>t</u>] ‘female rat’
[lu] ‘wolf’	[luy- <u>ə</u> to] ‘wolf cub’	[luy] ‘female wolf’
[flemar] ‘idler’	[flemar <u>d</u> -iz] ‘slacking’	[flemar <u>d</u>] ‘idler, fem.’

It stands to reason that a phonological scenario like that in (16) is at work.⁹

(16)

a.	b.	c.
C V C V	C V C V - [N C V C V]	C V C V - [Fem C V]
	↗	↗
g r o s	g r o s e s	g r o s
[gro]	[gro <u>s</u> -es]	[gro <u>s</u>]

⁸ The increase in the number of ž-final nouns between Juillard’s and Tucker, Lambert and Rigault’s respective counts is clearly due to the productive character of až-nominalizations in all registers of French, e.g., hacker talk, [debəgaž] ‘removal of bug from computer’; or 21st century slang, [plãtaž] ‘error, mistake’ (note that the nominalization of [plãt] ‘to plant’ when the verb is used non-metaphorically (e.g., planting of trees) is [plãtasyõ], not [plãtaž]).

⁹ Cf. Encrevé (1988) for discussion and implementation of that idea.

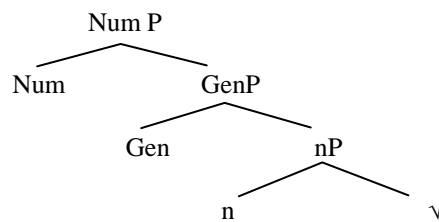
In (16a), the final, unassociated consonant is simply lost for lack of a docking site. In (16b), it links up to the empty initial onset of the affix. With respect to (16c), the underlying hypothesis regarding the nature of the feminine marker is that it is merely a minimal templatic platform devoid of intrinsic segmental content. As was the case with (16b), (16c) shows how the final floating consonant of the adjective now becomes audible. I will adopt the view that the realization of floating consonants involves the ingredients and mechanism described in (16c). I now turn to the topic of this paper proper, viz. the structural position of the feminine marker and its role in the architecture of French nouns.

3. Where is [_{Fem} C V]?

The question of the existence of a Gender projection within the lower structure of DP has been debated. Some authors have argued for the need of such a projection, notably Picallo (2007, 2008) and Bernstein (1993, 2001), while others have argued against such a need, for instance Ritter (1993) and Alexiadou (2004).

Let us assume for the sake of argument a) that such a projection is required and constitutes an intermediate functional layer between nP and NumP, as shown in (17); b) that morphology realizes functional structure according to the phasal scheme; c) that *n*, *a*, and *v* are phasal heads.¹⁰

(17)



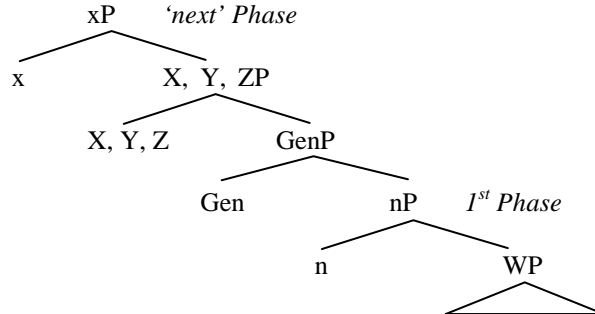
Under such assumptions, the head of GenP would then appear to be the natural site of realization of overt gender such as documented in (15c). Specifically, the templatic platform characteristic of French feminines might be viewed as the spellout of features of Gen. Spreading of the latent consonant would then ensue as part of the same realizational episode, much along the lines of (16c).

On closer scrutiny however, a number of objections arise. First, the phasal system does not naturally lend itself to an implementation of the scenario informally sketched out in the paragraph above. To see this, consider (18) where W

¹⁰ Cf. Marvin (2002) and Embick (2010) for a presentation of relevant aspects of the framework assumed here.

is the complement of the head of nP, a phasal head. nP has been selected by Gen. X, Y, Z are intermediate non-phasal heads (by hypothesis), each heading its own projection XP, YP, ZP, respectively. Finally, x is a phasal head. Thus, (18) comprises two phases: one, dubbed *1st phase*, is headed by *n*; the other, headed by *x*, is dubbed '*next*' phase.

(18)



Standard assumptions about the operation of the phasal scheme involve the idea that phase heads trigger the spellout of their complement, leaving the spellout of superordinate material (the head itself, its possible specifier or adjuncts, and intermediate (non phasal) nodes) to the next higher phase. That is, WP is spelled out at Phase 1, but Gen is only spelled out at the next higher phase, '*next*' phase in the case at hand in (18). On this view, no phonological interaction is expected between WP and the realization of Gen. In other words, if [_{Fem} C V] is the spellout of Gen, it should remain inaccessible to material pertaining to WP, and Feminine spreading should consequently be thwarted in all cases.

Another reason to doubt that [_{Fem} C V] is hosted by the head of GenP is almost theory-neutral. It stems from consideration of the evidence in (19).

(19)

a.	b.	c.
[vwa] 'voice'	[vwa _z -mã] 'voicing'	*vwaz
[nwa] 'nut'	[nwa _z -et] 'hazelnut'	*nwaz
[krwa] 'cross'	[krwa _z -e] 'crusader'	*krwaz
[swa] 'silk'	[swa _y -õ] 'silky'	*sway
[re] 'stripe'	[re _y -e] 'striped'	*rey
[tu] 'cough, n.'	[tu _ʃ -e] 'coughed'	*tus
[po] 'skin'	[pə _l -až] 'coat (of an animal)'	*pel
[dã] 'tooth'	[dã _t -al] 'dental'	*dãt
[fo] 'scythe, n.'	[fo _ʃ -e] 'to scythe, v.'	*foš
[sezõ] 'season'	[sezõ _n -ye] 'seasonal'	*sezõn

The nouns in (19a) are all feminine. Moreover, they all involve a floating consonant undetectable in the forms in (19a) themselves, though it reappears (underscored) upon affixation of a vowel-initial suffix (19b). Now, if $[_{\text{Fem}} \text{C V}]$ is the spellout of a Gender head heading feminine nouns, the floating consonant should be realized. That is, the forms in (19c) should surface, not those of (19a). But, evidently, the fact that the nouns in (19a) are feminine is not sufficient to force the expected result.

On the basis of the two considerations above, I conclude that $[_{\text{Fem}} \text{C V}]$ is *not* the spellout of Gen, indeed is not located in or above the head of GenP. In the next section, I lay the ground for an alternative.

4. The ingredients of an alternative

4.1. Phases and root clusters

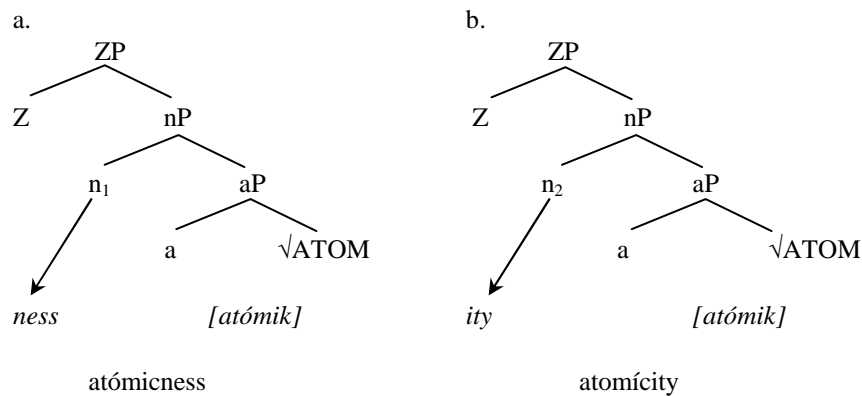
In Lowenstamm (to appear), I pointed out a very serious problem that arises from the conjunction of the two hypotheses in (20).

(20)

- i. spellout is phasal
- ii. affixes materially realize functional structure

Consider the representations in (21), where each head is phasal, *a* and *n* by definition, *Z* by hypothesis. (21a) represents the putative structure of *atómicness* while (21b) represents the putative structure of *atomícity*.

(21)

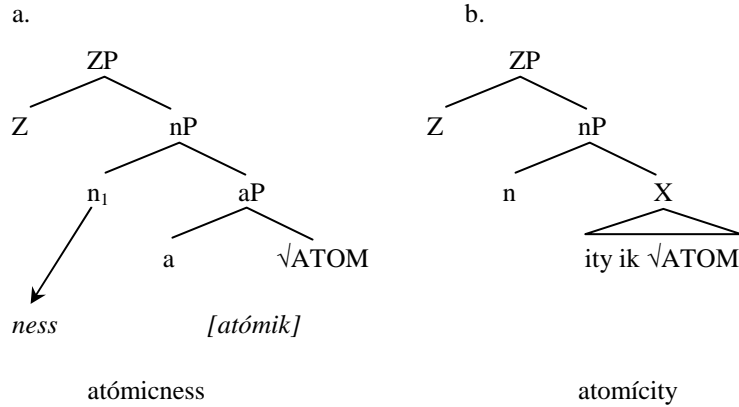


In either case, a first chunk is spelled out, namely *atómic*. The important point is that the head of *nP* in both (21a) and (21b) will be spelled out separately from *atómic* for *n* and *a* are the respective complements of *different heads*. When *n* in (21a) spells out, a phonologically independent object is accordingly produced, *ness* and *atómic* are linearized as *atómic+ness* and nothing further need be said.

Things are not as simple with (21b). Indeed, after *n* spells out as *ity* and linearizes with *atómik*, stress has to move forward, lest **atómik+ity* result in lieu of grammatical *atómicity*. Forward shift is out of the question however, since after a chunk of structure has undergone spellout, it is supposed to stay frozen in the phonetic shape in which it has been realized. Quite simply, *ness* is a non-cohesive or Level 2 affix in the sense of Lexical Phonology, while *ity* is a cohesive or Level 2 affix (Kiparsky 1982), and the representations in (21) can not capture the difference.

What is evidently required for a successful derivation of *atómicity* is that spellout be delayed in such fashion that *ity* not be processed independently of [atomic]. In phasal terms, this translates in the form of a requirement that *ity* and *atomic* be in the same phase. The two configurations in (22) appear to discriminate exactly along the right lines, as X (by hypothesis) is not a phasal node and contains none.

(22)



The next task, of course, is to articulate a proposal regarding the nature and organization of the ingredients of X. The proposal appears in (23).

(23)

Affixes are roots, too

Affixes are usually called ‘bound’ morphemes. If affixes are roots, as I claim, they must be ‘bound’ roots. I propose to capture the difference between bound and free roots as in (24).

(24)

- i. some roots can project to the phrasal level on their own, e.g., √BOTTLE, √RUG
- ii. other roots, e.g., √AL, √MENT, √NESS, etc., can not project to the phrasal level without the help of a complement

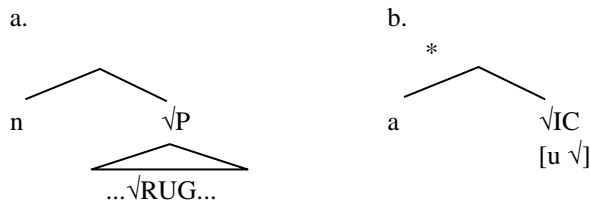
The boundedness of a root will be captured as follows: a bound root bears an uninterpretable feature which it seeks to check by merging with a complement. Not until the uninterpretable feature has been checked, can the bound root project at the phrasal level, and merge with a category-defining head. Two roots appear in (25), one is free, (25a); (25b) the other, is burdened with an uninterpretable feature, [u √].

(25)

- | | |
|------|-------|
| a. | b. |
| √RUG | √IC |
| | [u √] |

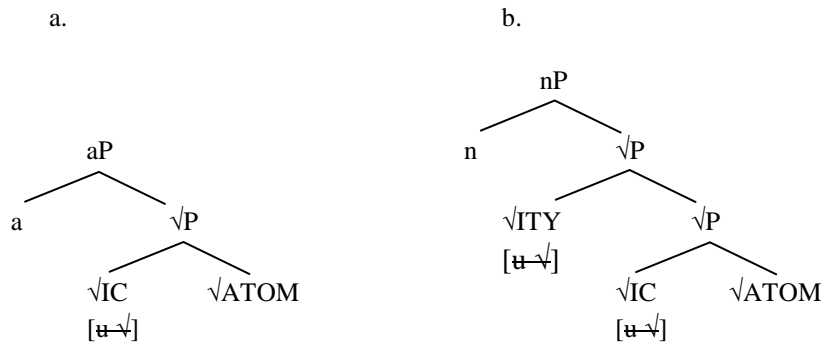
√RUG *as such* is fit for phrasal status, hence for merger with a category-defining head, as shown in (26a). √IC alone cannot undergo merger with a category-defining head as long as it has not rid itself of its uninterpretable feature (26b).

(26)



On the other hand, when the uninterpretable feature has been checked owing to the presence of an appropriate complement, phrasal status is attained, and merger with a category-defining head can take place, (27a). However merger with a category-defining head is not the only option, at that point. Indeed, the complex root [√_{VP} √_{IC} √_{ATOM}] can alternatively merge with another ‘bound root’ also in need of checking its uninterpretable feature, for instance [√_{VP} √_{ITY}], as shown in (27b). In turn, [√_{VP} √_{ITY} [√_{VP} √_{IC} √_{ATOM}]] will merge with a category-defining head, say *n*.

(27)



The reader will have noticed that the English affixes discussed up to this point are all typical stress shifters, the Class 1 affixes of Siegel (1974), or the Level 1 affixes of Kiparsky (1982). In my proposal, they are [u √] affixes. What difference does it make? The difference lies in the source of the label. The usefulness of recognizing Class 1 affixes is the possibility it affords to capture their impact on the stress pattern of the language. But, at the same time, much of the evidence on which membership in that class is decided comes from the accentual system of English itself. As a result the distinction between Class 1 and Class 2 incorporates a measure of circularity. By contrast, the proposal put forth here, while it also captures significant generalizations about stress, rests on considerations that have nothing to do with stress, namely the selectional behavior of affixes: an affix (strictly speaking a root) carries a [u √] feature because it selects roots. That *+al*, *+ic*, and *+ity* select roots can be determined by inspection of a sample such as (28).

(28)

frugal, drastic, calamity

That the characterization of the selectional targets of *+al*, *+ic*, and *+ity* was carried out in total independence of stress facts can be verified by means of a comparison with French: inspection of the sample in (29) indicates that French *+al*, *+ik*, and *+ite* also select roots. Of course, the stress system of the language, exceptionlessly final, could not possibly have provided any clue as it is indifferent to affixation type, or affixation at all.

(29)

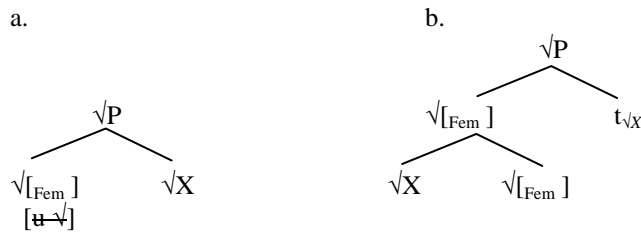
frügal 'frugal', *drastik* 'drastic', *kalamite* 'calamity'

This brief sketch of the ideas developed in Lowenstamm (to appear) will suffice for the purposes of this paper,¹¹ and I now return to French Feminines with a proposal regarding the location of [_{Fem} C V].

4.2. $\sqrt{[\text{Fem}]}$ as a root selector

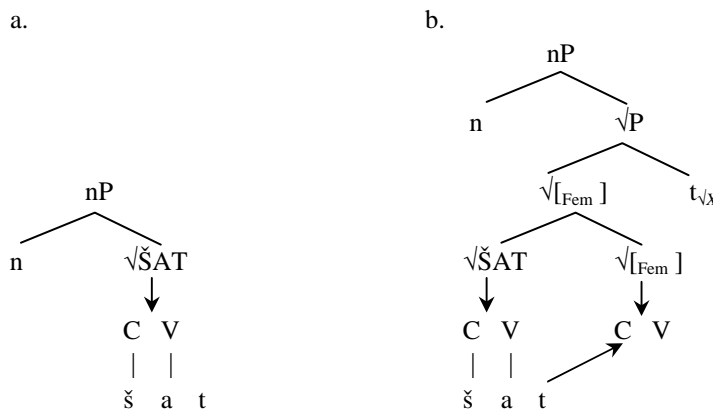
I submit that [_{Fem} C V], the templatic platform onto which a floating consonant spreads upon Feminine formation, is a root selector (or a Level 1 affix). Accordingly, its initial structural position is as indicated in (30a): selection of a suitable complement triggers checking of its uninterpretable feature. Then, upon left-adjunction, it moves as shown in (30b).

(30)



Consider now the derivations of [ša] ‘cat’ and [šat] ‘female cat’. The difference between (31a) and (31b) is the presence of [_{Fem} C V] in (31b) and its absence in (31a).

(31)



¹¹ For a discussion of Class 2 affixes, how they interact with Class 1 affixes, and how ordering paradoxes such as with governmental can be reduced, the interested reader can consult Lowenstamm (to appear).

At the relevant phase, the material located under the downwards arrows is spelled out. The presence of $[\text{Fem C V}]$ in (31b) makes it possible for the floating consonant to dock, thus deriving $[\text{ʃat}]$ ‘female cat’.

While the phonological scenario is under control, a burning question now arises: just what makes $[\text{ʃat}]$ a feminine noun? Surely, it can not be the presence of $[\text{Fem C V}]$, a feature of the complement of n , unlikely as such to percolate up to the phrasal level. The bits of the puzzle can be laid out as in (32).

(32)

- i. Root $\sqrt{\text{ʃAT}}$ does not require selection by $\sqrt{[\text{Fem}]}$ (to wit (a))
- ii. when $\sqrt{[\text{Fem}]}$ does select $\sqrt{\text{ʃAT}}$ (as in (b)), it still is not the source of the feminine gender of $[\text{ʃat}]$.
- iii. if $\sqrt{[\text{Fem}]}$ is both optional and irrelevant, what guarantees that it will nevertheless have to be present as one of the ingredients of the derivation of $[\text{ʃat}]$?

My answer to (32iii) will be: nothing. To see this, let us focus for a moment on the nature of the object derived by the selection of a root by $\sqrt{[\text{Fem}]}$, displayed in (33a) alongside with (33b) to highlight the non-necessary character of such a merger.

(33)



The object in (33) is nothing but a complex root consisting of root \sqrt{x} augmented by what I have called $\sqrt{[\text{Fem}]}$. As such, it can be said to have a ‘feminine’ profile when compared to non-augmented \sqrt{x} (33b). But the presence (or absence) of $\sqrt{[\text{Fem}]}$ has no impact on which of the two gender classes the item will be assigned to when it is eventually selected by a category-assigning head. Before focussing exclusively on selection of roots by n , I wish to document the general irrelevance of $\sqrt{[\text{Fem}]}$ by means of a very brief incursion into another domain, de-adjectival adverbs.

4.3. De-adjectival adverbs

The argument will be presented in the most cursory fashion. I assume (34):

(34)

- i. adjectives undergo *grammatical* gender agreement
- ii. gender is transmitted (or licensed) by the head noun inside the extended projection of which an adjective originates

If my contention that feminine-looking morphology such as prompted by the selection of a root by $\sqrt{[Fem]}$ is synchronically independent of true grammatical gender, its distribution should not require the presence of a motivating, agreement-triggering head noun as *per* (34ii). Rather, it should be randomly distributed. And indeed, overt ‘feminine’ morphology can be found in contexts where no source for *grammatical* gender agreement can be detected, as I proceed to show.

While most adjectives are invariable, a sizeable number nevertheless show overt alternations (35a, b) which I continue calling ‘masculine’ and ‘feminine’ with quotation marks to indicate reference to profile, crucially not to gender. The underlying latent consonant manifested in (35b) has been underscored. Now, de-adjectival adverbs can be formed by suffixation of +mā. Of interest here, is the fact that ‘masculine’ and ‘feminine’ adjectives are equally legitimate complements of +mā.¹² Since adverbs contain no head noun likely to trigger (or license) gender agreement, I conclude that the overt morphology differentiating the forms in (35a) and (35b) has nothing to do with Gender.¹³

(35)

a.	b.	c.	d.
‘masculine’ adjective	‘feminine’ adjective	‘masculine’ adverb	‘feminine’ adverb
örö ‘happy’	örö <u>z</u>	*örömā	örözmā
frwa ‘cold’	frwa <u>d</u>	*frwamā	frwadmā
for ‘strong’	for <u>t</u>	*formā	fortēmā
žāti ‘nice’	žāti <u>y</u>	žātimā	*žātiymā
negližā ‘negligent’	negližā <u>t</u>	negližamā	*negližātmā

I now return to nouns.

¹² Cf. Boyé and Plénat (2009) for discussion.

¹³ For an entirely different view of adjectival allomorphy, yet culminating in a similar conclusion, cf. Bonami and Boyé (2003, 2005).

5. Checking the distribution of $\sqrt{[F_{em}]}$, tools and prisms

5.1. Gender and sex

From what precedes, it is expected that overt feminine morphology will be distributed with total disregard of grammatical gender; or conversely, that allotment to one of the two gender classes will be blind to the presence or absence of overt feminine morphology. A fair and meaningful evaluation of that claim crucially depends on careful selection of relevant evidence. I illustrate the point with an unsuccessful first attempt.

Consider the sample in (36) where grammatical gender is represented by means of the definite article (*lə* = masculine, *la* = feminine) and overt feminine morphology is underscored in (36b).

- (36)
- | | |
|--|--|
| a. | b. |
| (<i>lə</i>) <i>rənar</i> ‘male fox’ | (<i>la</i>) <i>rənar</i> <u>d</u> ‘female fox’ |
| (<i>lə</i>) <i>polone</i> ‘male Pole’ | (<i>la</i>) <i>polone</i> <u>z</u> ‘female Pole’ |
| (<i>lə</i>) <i>bulāže</i> ‘male baker’ | (<i>la</i>) <i>bulāžer</i> <u>z</u> ‘female baker’ |

Now, suppose nonce words such as *pənar*, *bordüre*, and *rulāže* denote an animal species, a national affiliation, and an occupation, respectively. No examples such as are illustrated in (37) can be found, where the masculine member of such a hypothetical pair (37a) carries overt feminine morphology in the form of the familiar floating consonant, but the feminine member (37b) of the pair carries none.

- (37)
- | | |
|---------------------------------------|------------------------------|
| a. | b. |
| (<i>lə</i>) <i>pənar</i> <u>d</u> | (<i>la</i>) <i>pənar</i> |
| (<i>lə</i>) <i>bordüre</i> <u>z</u> | (<i>la</i>) <i>bordüre</i> |
| (<i>lə</i>) <i>rulāžer</i> <u>z</u> | (<i>la</i>) <i>rulāže</i> |

Masculine nouns exhibiting endings such as in (37a) are plentiful, so are feminine nouns ending as in (37b). What is not found is masculine/feminine *pairs* of the type exemplified in (37). Does the absence of such pairs weaken the idea that overt feminine morphology is unrelated to grammatical gender? Or does it on the contrary, rather suggest that the two are tightly bound?¹⁴ I submit that alternations such as in (36) are in fact a distorting prism with respect to the

¹⁴ I am grateful to Jacqueline Gueron and Andrew Nevins for raising that point.

claim under discussion, and tell us very little in the end. How was the set in (36) constructed and why was it unlikely to reveal anything of value in the first place? Its defining property appears in (38).

(38)

The set of minimal pairs such that the only difference between members of those pairs is gender

As such, pairs such as (*lə*) *medsē* ‘medical doctor’/(*la*) *medsin* ‘medical science, (*female doctor)’ or (*lə*) *bra* ‘arm’/(*la*) *bras* ‘breaststroke’ will be excluded as they involve a difference in denotation in addition to the gender difference. In effect, the definition in (38) will exclusively return the set of items such that gender is interpreted as *sex*, viz. masculine as male and feminine as female. In fact, the natural constituency of that set also includes invariable items of type (39) and suppletive items such as in (40).

(39)

a.	b.
(<i>lə</i>) <i>garažist</i> ‘garage attendant’	(<i>la</i>) <i>garažist</i>
(<i>lə</i>) <i>rūs</i> ‘Russian’	(<i>la</i>) <i>rūs</i>
(<i>lə</i>) <i>filatelist</i> ‘stamp collector’	(<i>la</i>) <i>filatelist</i>

(40)

a.	b.
(<i>lə</i>) <i>sāgliye</i> ‘male wild boar’	(<i>la</i>) <i>le</i> ‘female wild boar’
(<i>lə</i>) <i>žar</i> ‘gander’	(<i>la</i>) <i>wa</i> ‘goose’
(<i>lə</i>) <i>mutō</i> ‘sheep’	(<i>la</i>) <i>brebi</i> ‘ewe’
(<i>lə</i>) <i>šəval</i> ‘horse’	(<i>la</i>) <i>žümā</i> ‘mare’

It is, of course, possible to zero in on the set of pairs of the type illustrated in (36). For this, it is enough to revise (38) as in (41).

(41)

The set of *non-invariable* minimal pairs *from the same root* such that the only difference between members of those pairs is gender

But, the reader will note that, on account of the two additional provisos (in italics in (41)) distinguishing (41) from (38), the set now defined is no longer a natural class, though the criterion in (41) is the one used by most descriptive grammars and all school grammars. As already pointed out, it filters out everything but nouns of sexed species. In effect, it documents the relation ‘being the

feminine of', not at all the property I am trying to isolate, viz. 'feminine profile' or 'overt feminine morphology (regardless of actual grammatical gender)'. As such, it is of little use for our purpose. What is required is an independent notion of what it means to display overt feminine or masculine morphology. Only then, will we be able to see whether the distribution of that property matches grammatical gender or not. The next subsection is devoted to the identification of such a criterion.

5.2. A criterion

Consider the nouns *bra* 'arm' and *brasar* 'armband'. The *s* in the latter (*brasar*) reveals that the former involves a floating segment (42). (42b) shows how the derivation of *brasar* lays the ground for the manifestation of the floating *s*.

(42)

a.	b.	
C V C V	C V C V - [C V C V _N]	
	↗	
b r a s	b r a s	a r
[bra] 'arm'	[brasar] 'armband'	

This is enough for the identification of a criterion of what I have called overt morphology. It can be formulated as in (43).

(43)

If a noun involves a floating consonant, that noun displays overt masculine morphology

By (43), *bra* unambiguously displays masculine overt morphology. The rest of this section is devoted to showing exactly along what lines criterion (43) operates, what it is sensitive to, what it does and does not do.

Point 1. The irrelevance of a matching noun displaying overt feminine morphology.

By criterion (43), it is irrelevant to the determination that *bra* displays overt masculine morphology whether or not another noun from the same root realizes the floating consonant by means of $\sqrt{[\text{Fem CV}]}$.

Point 2. The irrelevance of the grammatical gender of a matching noun displaying overt feminine morphology, when such exists.

As it turns out, *bra* ‘arm’ has a matching noun displaying overt feminine morphology, viz. *bras* ‘breaststroke’. Its derivation appears in (44a) along with *bra* ‘arm’ repeated for comparison. Note that the fact that *bras* is not compositional with respect to *bra* ‘arm’ constitutes support for the view put forth above with respect to the local relation of $\sqrt{[Fem\ CV]}$ relative to its complement \sqrt{BRAS} .

(44)

a.	b.
C V C V - [Fem C V]	C V C V
↗	
b r a s	b r a s
[bras] ‘breaststroke’	[bra] ‘arm’

Now, *bra* has masculine grammatical gender and *bras* feminine grammatical gender. In this case, it appears that a perfect match obtains between the absence of overt feminine morphology and masculine grammatical gender on the one hand ((*la*) *bra*), and the presence of overt feminine morphology and feminine grammatical gender on the other hand ((*la*) *bras*). However, no such perfect match is necessary – indeed, my contention is that it is fortuitous – as the next example shows.

Consider noun *kano* ‘dinghy’ and verb *kanote* ‘go boating’. Again, the latter (45b) brings out the floating *t* of the former (45a).

(45)

a.	b.	c.
C V C V	C V C V - [C V v]	C V C V - [Fem C V]
	↗	↗
k a n o t	k a n o t e	k a n o t
[kano] ‘dinghy’	[kanote] ‘go boating’	[kanot] ‘large dinghy’

What if $\sqrt{[Fem]}$ selects \sqrt{KANOT} ? This is shown in (45c): as expected the floating *t* of *kano* is realized and a new noun is derived, *kanot*. But whereas we saw that *bras* ‘breaststroke’ (44a) has feminine grammatical gender, *kanot* even though its spellout involves the same configuration is nevertheless masculine, indeed no less masculine than *kano* itself, its overt feminine morphology notwithstanding.

Point 3.

Consider now the noun *vã* ‘wind’ and the corresponding adjective *vãtö* ‘windy’. The *t* in *vãtö* reveals that *vã* involves a floating *t* (46a). Therefore, by criterion (43), *vã* must be construed as displaying overt masculine morphology. Again, the absence of a hypothetical feminine noun *vãt* is irrelevant in this respect.

(46)

a.	b.
C V	C V – [C V Adj]
	↗
v ã t	v ã t ö z
[vã]	[vãtö]

Note that *vã* both carries overt masculine morphology *AND* grammatical masculine gender ((*lə*) *vã*). But if such a coincidence is fortuitous, as I claim, there should also exist nouns displaying overt masculine morphology but carrying *FEMININE* grammatical gender. Such is indeed the case, as can be seen with *dã* ‘tooth’ (47a). Adjective *dãtal* ‘dental’ reveals the underlying floating *t* of *dã* (47b). Therefore *dã* just like *vã* has overt masculine morphology. Neither has a partner displaying overt feminine morphology such as well-formed but unattested hypothetical *vãt* or *dãt*. As such, *dã* and *vã* illustrate the exact same phenomenology. Nevertheless, *dã* in spite of its masculine outlook is a feminine noun: (*la*) *dã*) as opposed to (*lə*) *vã*!

(47)

a.	b.
C V	C V – [C V C V Adj]
	↗
d ã t	d ã t a l
[dã]	[dãtal]

To sum up, a French noun can come in the four varieties listed in (48).

(48)

- i. masculine profile and masculine gender, ex. *vã* ‘wind’
- ii. feminine profile and masculine gender, ex. *kanot* ‘large dinghy’
- iii. masculine profile and feminine gender, ex. *dã* ‘tooth’
- iv. feminine profile and feminine gender, ex. *bras* ‘breaststroke’

While the evidence in (48) goes a long way towards establishing the absence of correspondence between overt morphology and grammatical gender, the point can be made even more dramatic as I show in the next section with a discussion of l/o alternations and so-called ‘irregular’ plurals.

6. L-vocalization

The discussion will proceed in two steps. First, I will introduce the phenomenon known as L-vocalization, then I will focus on the intriguing alternations which provide the opportunity to observe it.

6.1. The facts

At one point in the history of French, sequences of type ...al{C,#} turned into ...o{C,#}, a phenomenon known as L-vocalization and illustrated in (49).¹⁵

(49)

Latin	Modern French
alterum	otr ‘other’
alba	ob ‘dawn’

L-vocalization is reputed to be no longer active in Modern French. On the contrary, I will argue on the basis of ideas developed earlier in this paper that L-vocalization is still synchronically active in Modern French, though in a different guise.

Consider o-final nouns such as *rato* ‘rake’, *karo* ‘tile’, *bato* ‘ship’, *grümo* ‘lump’, *po* ‘skin’. As many other such nouns, they display the word-final o/(V)l alternation illustrated in (50) and triggered by the suffixation of a vowel-initial affix.

(50)

šap <u>o</u> ‘hat’	šap <u>ə</u> l+ye ‘hatter’
kar <u>o</u> ‘tile’	kar <u>l</u> +e ‘tile up, v.’
bat <u>o</u> ‘ship’	bat <u>ə</u> l+(ə)ri ‘inland shipping’
grü <u>m</u> o ‘lump’	grü <u>m</u> l+ö ‘lumpy’
p <u>o</u> ‘skin’	p <u>ə</u> l+ad ‘pelade’

¹⁵ I am not suggesting that Modern French directly stems from Latin. For a detailed discussion of the intermediate steps, cf. Pope (1934).

My claim is that L-vocalization is involved in the alternations in (50). But whereas L-vocalization used to affect codas in Medieval French, it has been reassigned to a different phenomenology in Modern French, namely word-final floating consonants. A comparison of the fate of word-final floating *l*'s with other floating consonants appears in (51).

(51)

a.	b.	c.
C V C V C V	C V C V C V	C V C V
	↗	↗
p o l o n e z	k a t a l a n	b a t ə l
[polone] 'Pole'	[katalã] 'Catalan'	[bato] 'ship'

Whereas a word-final floating *z* is lost (51a), a floating nasal can take refuge on a preceding vowel on which it is realized as a nasal feature (51b). A floating word-final *l* can similarly take refuge on the preceding vowel (51c) and is realized in the form of a rounding feature.¹⁶ Clearly, by criterion (43) repeated as (52) for convenience, the o-final nouns in (50) display overt masculine morphology.

(52)

If a noun involves a floating consonant, that noun displays overt masculine morphology

And indeed, such o-final nouns can be matched by counterparts displaying overt feminine morphology:

(53)

a.	b.	c.
servo 'brain'	eservəl+e 'brainless'	servel 'brain matter'
šamo 'camel'	šaməl+ye 'camel driver'	šamel 'she-camel'
žümo 'twin'	žüm(ə)l+až 'pairing'	žümel 'twin sister'
püso 'male virgin'	püs(ə)l+až 'virginity'	püsel 'female virgin'

The nouns in (53b) reveal an underlying floating *l*. As such, they make it possible to independently assess the nouns in (53a) as evidencing overt masculine morphology. The involvement of $\sqrt{[Fem]}$ yields the expected result (53c). This is shown in (54) with *žümo* 'twin', *žüm(ə)l+až* 'pairing', *žümel* 'twin sister'.

¹⁶ For a discussion of the internal structure of L and its rounding potential and for a detailed discussion of L-vocalization in a Germanic language of the Bavarian group spoken in Upper Austria, cf. Bendjaballah (2012).

(54)

a.	b.	c.
C V C V	C V C V - [C V C V _n]	C V C V - [Fem C V]
	↗	↗
ž ü m ə l	ž ü m (ə) l a ž	ž ü m ə l

Nevertheless, the idea that L-vocalization still operates in Modern French is surrounded by general skepticism. One reason is obviously that not all l-final nouns display L-vocalization. Thus, *otəl+ye* ‘hotel keeper’, *vermisəl+ye* ‘vermicelli maker’ exactly parallel *šaməl+ye* ‘camel driver’ above. Yet, the unsuffixed corresponding nouns evidence no L-vocalization: *otel* ‘hotel’, *vermisel* ‘vermicelli’, not **oto* or **vermisə*. Rather than trying to directly confront the challenge posed by an apparently murky pocket of uncertain regularities, let us see where else L-vocalization can be observed.

6.2. More facts

Another set of alternations evidences the same phenomenon. Consider the data in (55).¹⁷

(55)

a.	b.
(lə) bokal ‘jar’	boko
(lə) kanal ‘canal’	kano
(lə) siñal ‘signal’	siño
(lə) ženeral ‘general’	ženero

Alternations such as are documented above have strengthened in no small measure the general perception of L-vocalization as a leftover from history, as the result of the repeated interference of various committees of normative grammarians with natural evolution, or a mix of both. There are two reasons for this. First, alternations such as in (55) exclusively affect the plurals of masculine nouns. Indeed, no feminine nouns form their plurals by means of L-vocalization, as shown in (56b). Rather, they remain sturdily invariable.

¹⁷ Cf. Becker et al. (2011) for discussion from a different perspective.

(56)

a.	b.
(l̥) sād̥al ‘sandal’	sād̥al
(l̥) ped̥al ‘pedal’	ped̥al
(l̥) raf̥al ‘gust of wind’	raf̥al

Second, not even all l-final masculine nouns pattern as in (55). To wit (57).

(57)

a.	b.
(l̥) narval ‘narwhal’	narval/*narvo
(l̥) festival ‘festival’	festival/*festivo
(l̥) fanal ‘lantern’	fanal/*fano
(l̥) šakal ‘jackal’	šakal/šako

For these reasons, plurals involving L-vocalization as in (55) are called ‘irregular’ plurals in normative grammars, and essentially viewed as grammatical curios. By contrast, invariable plural nouns, be they masculine (57) or feminine (56) are reputed to be regular.

But in reality and contrary to popular belief, while the plural nouns in (55) are certainly intriguing on account of their final vowel, they are perfectly regular *qua* plurals as I proceed to show.

The plurals of masculine nouns and consonant-final feminine nouns are realized as a floating *z* when followed by a syntactically not too distant word-initial item, say a post-nominal adjective as in the examples in (58a, b). Here the attention of the reader is drawn to group (58c), the so-called irregular plurals displaying L-vocalization. Evidently, they express their plural in the exact same way as every other noun in the language.

(58)

- a. plurals of ‘regular’ al-final masculine nouns
 festival-z-āgle ‘English festivals’
 šakal-z-agresif ‘aggressive jackals’
- b. plurals of feminine al-final nouns
 sād̥al-z-afriken ‘African sandals’
 raf̥al-z-inatād̥ü ‘unexpected gusts of wind’
- c. plurals of ‘irregular’ al-final masculine nouns
 siño-z-ābigü ‘ambiguous signals’
 ženero-z-almã ‘German generals’

It is thus clear that if anything is ‘irregular’ about the items in (58c), it is surely not the manner in which they realize Plural. As one goes down the structure, we find that the head of GenP – the place where grammatical gender is recorded – hosts [-Fem] in accordance with the fact that those nouns *are* masculine. And as we go further down into nP, their final o’s indicate overt masculine morphology, i.e., [-F] since this is the way L-vocalization is construed. Again, in our terms as we saw, there is nothing necessary in having the value of [F] match that of [Fem]. But when it does, as in this case, why should this be cause for alarm on the part of traditional grammarians to the point that they feel they have to call such plural nouns ‘irregular’? Ironically, the remarkable member of singular/plural pairs such as *ženeral* ‘general’/ženero ‘generals’ is the singular, not the plural. Indeed, *ženeral*, a masculine noun, nevertheless realizing its floating final *l* has nothing but overt feminine morphology! Naïve regularisticism would have led to the expectation that the singular of masculine plural nouns such as *siño* ‘signals’ or *ženero* ‘generals’ be **siño* and **ženero* with matching values for [F] and [Fem] irrespective of Number, much as is the case with the nouns of (50), viz. *servo* ‘brain’/servo ‘brains’, *šamo* ‘camel’/šamo ‘camels’, etc.

Be that as it may, a state of affairs has now been brought to light in connection with al-final nouns. It can be characterized as in (59).

(59)

- i. some masculine nouns have o-plurals, e.g., *ženeral*/_{PL}*ženero*
- ii. some masculine nouns don’t, e.g., *šakal*/_{PL}*šakal*/*_{PL}*šako*
- iii. no feminine nouns have o-plurals, the general pattern being exemplified by, e.g., *sandal*/_{PL}*sandal*/*_{PL}*sando*

This pinched, highly asymmetrical distribution apparently challenges my claim that overt feminine or masculine morphology is freely distributed, irrespective of gender or number? That is: instead of (59), wouldn’t the alternative state of affairs in (60) be expected where all logical possibilities are attested?

(60)

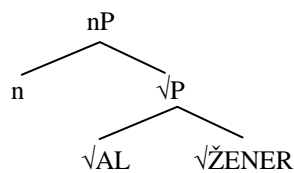
- i. masculine nouns with -al in the singular and -o in the plural
- ii. masculine nouns with -al in the singular and -al in the plural
- iii. masculine nouns with -o in the singular and -o in the plural
- iv. masculine nouns with -o in the singular and -al in the plural
- vi. feminine nouns with -al in the singular and -o in the plural
- vii. feminine nouns with -al in the singular and -al in the plural
- viii. feminine nouns with -o in the singular and -o in the plural
- ix. feminine nouns with -o in the singular and -al in the plural

I submit that the query just raised is entirely legitimate, yet not quite correctly framed. There are two reasons for this. First, (59) while observationally adequate is not much of a linguistic generalization in the usual sense. Second, the question is predicated on the assumption that *noun allomorphy* is at stake. I reject that assumption and I will contemplate a different construal of l/o alternations.

6.3. Vocalizing *l* as part of an affix

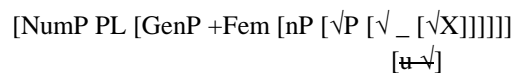
The proposal runs as follows: nouns displaying l/o alternations involve an affix. Concretely, *ženeral*/_{PL}*ženero*, *siňal*/_{PL}*siňo* are in reality *žener-al*/_{PL}*žener-o*, *siň-al*/_{PL}*siň-o*, etc. Similarly, nouns such as *servo* ‘brain’ and *šamo* ‘camel’, on account of the *l* they reveal upon suffixation, are underlyingly *serv-əl*, *šam-əl*, etc. Nouns such as *sandal*/_{PL}*sandal*, *šakal*/_{PL}*šakal* may or may not be analyzed as *sand-al*/_{PL}*sand-al*, *šak-al*/_{PL}*šak-al*, etc.¹⁸ The representation of *ženeral* appears in (61).

(61)



On the view just put forth, alternations exclusively target affixes, and it is irrelevant what the complements of those affixes may be. That is, the fact that say, feminine nouns such as *sandal* never display l-vocalized plurals such as unattested **sando* does not *per se* militate against the idea that ‘overt morphology’ is randomly distributed. What matters is that –o be found at all in the context indicated for instance in (62), a feminine plural noun built without the contribution of $\sqrt{[Fem]}$ and therefore triggering l-vocalization, *regardless of the identity of \sqrt{x} or the profile of the corresponding singular (if any exists)*.

(62)



As we will see, such cases are found. The crucially pending question is of course why the *-al* of *sandal* or the underlying *-əl* of surface *šamo* should be viewed as an affix in the first place. I will address this question in two steps.

¹⁸ This qualification will be returned to below.

First, I will provide evidence for the affixal status of *-al* and *-əl*. Then, I will argue that *-al* and *-əl* are, in fact, one and the same affix.

Three arguments militate in support of the status of *-al* and *-əl* as autonomous linguistic objects, indeed as affixes.

The first such argument is the absolutely enormous number of *-al*-final or *-əl*-final items in comparison with say, *ab#*, *as#*, *af#*, *ak#*, or *az#*-final items, or in comparison with *ol#*, *ul#*, *il#*, *ül#*-final items. By a reasoning similar to the one that led earlier on to a correction of Tucker, Lambert and Rigault's count of *-až*-final nouns, the disproportionate popularity of *-al*-final or *-əl*-final nouns can be similarly rationalized.

The second argument is the fact that *-al/-əl*-final items can be nouns, adjectives, or both. In that respect, they pattern alongside other items ending in uncontroversial suffixes such as *+yē*, *+ye*, *+er* and many more which derive both nouns and adjectives (63).

(63)	nouns	adjectives	nouns <i>and</i> adjectives
<i>+yē</i>	mekanis <i>yē</i> 'mechanic' širürž <i>yē</i> 'surgeon'	dilüvy <i>ē</i> 'diluvian' mikroby <i>ē</i> 'microbian'	krey <i>yē</i> 'C/christian' ürügway <i>yē</i> 'U/uruguayan'
<i>+ye</i>	pomye 'apple tree' pöp <i>ye</i> 'firefighter'	prētanye 'springlike' kutümye 'customary'	sēgülye 'singular' mobilye 'furniture, movable (property)'
<i>+er</i>	koroler 'corollary' lāpader 'floor lamp'	ležāder 'legendary' poler 'polar'	sedāter 'sedentary' ebdomader 'weekly'
<i>+al</i>	festival 'festival' ēterval 'interval'	nazal 'nasal' literal 'litteral'	dyagonal 'diagonal' mineral 'mineral'
<i>+əl</i>	irōdel 'swallow' šamel 'female camel'	föksyonel 'functional' eternel 'eternal'	materyel 'material' rəbel 'rebel, rebellious'

The third argument rests on recent results of Becker *et al.* (2011). In a forceful and convincing rejoinder, the authors show that straightforward linguistic analysis more accurately predicts the behaviour of speakers than richer models based on lexical statistics. One of their valuable results has to do with *-al/-o* singular/plural alternations in French: they bring to light a striking generalization, namely that monosyllabic nouns only reluctantly submit to the alternating pattern in comparison to polysyllabic nouns. Thus, *mal* 'evil' and *val* 'valley' do have 'alternating' plurals *mo* and *vo*, but Becker *et al.* succeed in establishing

that non-alternating plurals such as *kal/kal* ‘calluses’ or *bal/bal* ‘dances, balls’ represent the more typical pattern for monosyllabic nouns.

The point I wish to make here is that their generalization merely follows from my claim that *-al* can be viewed as an affix. Consider a noun such as *arsənal* ‘arsenal’. The fact that its plural is *arsəno* makes it possible to determine, under my hypothesis, that *-al* in *arsənal* is an affix. On the other hand, the status of the *-al* of *carnaval* ‘carnival’ remains undecidable because the plural, *carnaval*, provides no useful information (see below). That is the $\langle al \rangle$ substring of *carnaval* could be either part of the root, i.e., $\sqrt{\text{KARNAVAL}}$, but it could equally well be affix *-al*, i.e., $\sqrt{\text{KARNAV}} + \sqrt{\text{AL}}$.

Now, in this scheme monosyllabic nouns occupy a very special place. Consider again *mal* ‘evil’. Because its plural is *mo*, affix *-al* is involved. The consequence is that the root complement of *-al* is $\sqrt{\text{M}}$. Now, a handful of examples of mono or biconsonantal roots are attested, for instance $\sqrt{\text{G}}$, $\sqrt{\text{KR}}$, both selected by affix *-ö* (already illustrated in (35) with *ör+ö* ‘happy’)) to derive *gö* ‘rogue’ and *krö* ‘hollow’. Yet, they remain by and large extremely rare. Accordingly, Becker, Eby Clements and Nevins’s generalization can be recast as in (64).

(64)

Analyses of monosyllabic nouns as involving affix *-al* will be exactly as rare as monoconsonantal roots themselves

Of course, speakers will only reluctantly analyze $\langle al \rangle$ as an affix in monosyllabic nonce words, because of the attendant consequence that the complement root must be monoconsonantal. The fact that the idealization I proposed derives the generalization unearthed by Becker *et al.* is a further indication that it is headed in the right direction.

Several arguments having to do with the respective distribution of *-al* and *-əl* suggest that there are allomorphs.

First, *-al* and *-əl* appear to be in complementary distribution when no further suffixation is involved, as very few pairs of type $\text{X} + \text{al}$ and $\text{X} + \text{el}$ can be found to coexist. I have only found *orižinal* ‘eccentric’ and *orižinel* ‘primordial’, and *kōfesional* ‘confessional box’ and *kōfesional* ‘pertaining to faith, adj.’. However, in both cases, the $\text{X} + \text{el}$ member of the pair is fully compositional while the $\text{X} + \text{al}$ member is definitely not. Work in progress (Lowenstamm, 2012) indicates that $+ \text{al}$ attaches to roots exclusively, whereas $+ \text{el}$ while it also attaches to roots (e.g., *materiel* ‘material, adj.’),¹⁹ attaches to nP as well.

¹⁹ The reader is reminded that in the framework advocated in Section 4, *-al* in *kōfesional* can be viewed as directly attaching to a (complex) root, viz. $[_{\text{VP}} \sqrt{\text{AL}} [_{\text{VP}} \sqrt{\text{ION}} [\text{KÖNFES}]]]$.

The second piece of evidence pointing to the differential privileges of attachment of *-al* and *-əl* is the compelling intuition of speakers that only *-əl* can attach to nouns of type X+ion for purposes of deriving adjectives. Thus, *direksyoneł* ‘directional’, *kōposisyoneł* ‘compositional’ are well-formed in sharp contrast with **direksyonal* and **kōposisyonal*, which are entirely out of the question. Indeed, this writer, if asked to form a novel adjective meaning ‘pertaining to attrition’, would offer *atrisyōneł* without hesitation, never *atrisyōnal*!

However, under further suffixation, neutralization can be seen to take place: contexts can be found in which *-al* only is welcome, to the exclusion of *-əl*. In (65a), adjective of both kinds, in *-al* and *-əl*, appear. While adverb formation by suffixation of +mã in (65b) preserves the *-al/-əl* distinction, the derivation of +ite nouns (65c) rejects *-əl* in favor of *-al* (underscored in (65c)), in effect forcing on the complement of +ite a shape it does not have in isolation.

(65)

	a.	b.	c.
	adjectives	adverbs	+ite nouns
+al	normal ‘normal’	normalmã ‘normally’	normalite normality’
	lokal ‘local’	lokalmã ‘locally’	lokalite ‘locality’
+əl	form <u>el</u> ‘formal’	form <u>el</u> mã ‘formally’	form <u>al</u> ite/*form <u>el</u> ite ‘formality’
	krim <u>in</u> el ‘criminal’	krim <u>in</u> elmã ‘criminally’	krim <u>in</u> alite/*krim <u>in</u> elite ‘criminality’

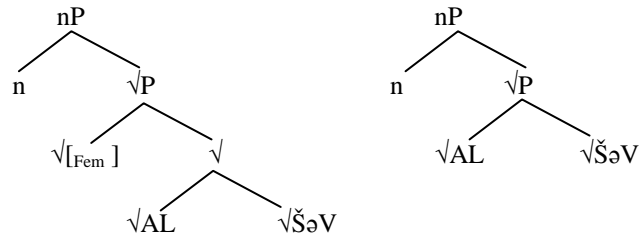
Based on what precedes, I now put forth a proposal for the partial phonological representation of the object under discussion. It brings out the two aspects relevant for the discussion in progress, the floating behavior of its final *l* represented in (66) by the absence of an associated templatic platform; and its affixal nature represented by the uninterpretable feature requiring its association to a complement:

(66)

\sqrt{L}	spellout: /l/
[u $\sqrt{\quad}$]	

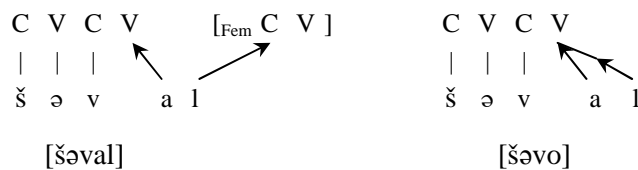
In (67), I provide a representation of the affix in the two contexts determining its phonetic realization, with and without the ‘feminine root’:

(67)



Head Movement and spellout of the material combined in (67a, b), produces the configurations in (68a, b).

(68)



Whether \sqrt{L} will be realized as [l] or [o] is settled between two partners, exclusively: \sqrt{L} and $\sqrt{[Fem]}$. When the latter is present, [l] surfaces; when it is absent, /l/ finds shelter on its complement – there always is one – and [o] surfaces.

Thus, there is a clear difference between my proposal and the traditional view. Under the traditional view, the <-al/-əl> string is part and parcel of a noun, say *šəval* or *šakal*, and it therefore makes sense to wonder why the plural of *šəval* is *šəvo* while the plural of *šakal* is not *šako*. In sharp contrast, under the view advocated here, the l/o allomorphy exclusively targets the -al/-əl affix, and complement roots such as $\sqrt{šəV}$ and $\sqrt{šAK}$ are strictly passive bystanders. It follows that there is no sense in addressing the faithfulness issue in terms of the entire *noun*, which turns out to be just as well since, as was pointed out earlier, (59) was not much of a linguistic generalization to begin with. Of course, it does make sense to ask how often and why -al/-əl falls prey to L-vocalization or stays -al/-əl. My point is that the allomorphic variation affecting the affix depends on the presence or absence of what I have called the ‘feminine’ root, and I have claimed above that it is randomly distributed. And indeed, for each of the four classes determined by the combination of all values for Number and (grammatical) Gender (69a, b, c, d), we find that both profiles, L-vocalized ‘masculine’ o

and ‘feminine’ *-al/-əl* are attested as shown with illustrative examples at the bottom of the table in (69e, f, g, h, i, j, k, l).

(69)

Singular				Plural			
a. Masculine		b. Feminine		c. Masculine		d. Feminine	
e.	f.	g.	h.	i.	j.	k.	l.
(rid)-O	(šəv)-AL	(p)-O	(prün)-EL	(šəv)-O		(p)-O	(rid)-El (prün)-EL
(šam)-O	<i>(šak)-AL</i>		<i>(sād)-AL</i>	(šam)-O	<i>(šak)-AL</i>		<i>(sād)-AL</i>

6.4. Assessment

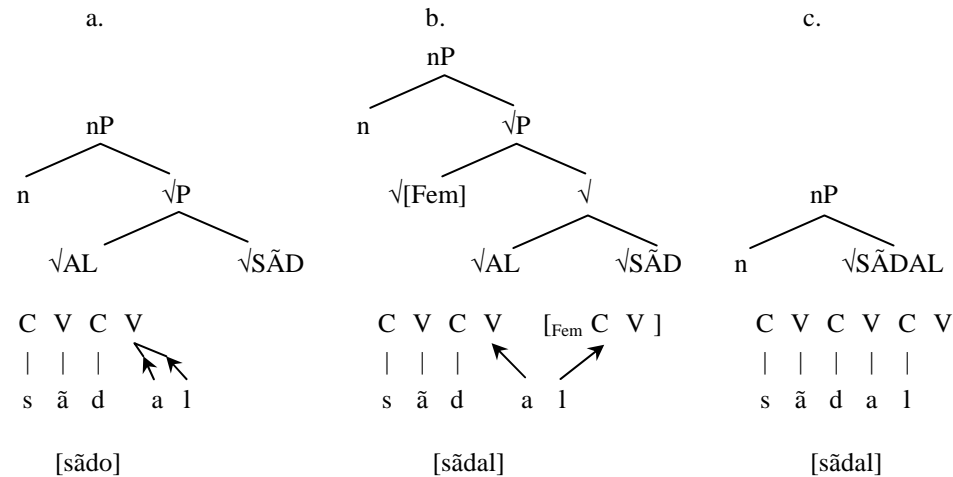
The *o*-forms and the *el*-forms in (69) all enter alternations with non L-vocalized counterparts (*-al* or *-əl*) and L-vocalized counterparts (*o*) respectively, as can be seen in (70b) from the associated derivatives for the sample in (70a).

(70)

a.	b.
šam <u>o</u> ‘camel’	šam <u>ə</u> lye ‘camel driver’
p <u>o</u> ‘skin’	p <u>ə</u> lad ‘pelade’
šəv <u>o</u> ‘horses’	šəv <u>ə</u> l ‘horse’
prün <u>el</u> ‘sloe’	prun <u>o</u> ‘prune’
rid <u>el</u> ‘slatted side (of truck)’	rid <u>o</u> ‘curtain’

On the other hand, many forms do not participate in such alternations. Representatives of that sturdy, invariable behaviour appear in italics at the bottom of (69). Indeed, there is no **sādo* or **šako* derived from the same root as *sādal* or *šakal*. Exactly what does that mean? In (71), I have represented three architectural possibilities along with their corresponding spellout schemes immediately below: in (71a) the architecture of hypothetical **sādo*, and in (71b) and (71c) two ways of construing attested *sādal*.

(71)



If **sãdo* was attested alongside *sãdal*, the analysis of the former, within the confines of my proposal, would necessarily involve \sqrt{AL} and the absence of $\sqrt{[Fem]}$. At spellout, *l* would regress leftward and L-vocalization would ensue. *sãdal* would then necessarily be analyzed as in (71b), the difference being the presence of $\sqrt{[Fem]}$. But in the absence of **sãdo*, no compelling argument forces the analysis in (71b). Indeed, *sãdal* could perfectly well be analyzed as in (71c), where the root is not $\sqrt{SÃD}$ but $\sqrt{SÃDAL}$.

Here, we reach the limits of the criterion identified earlier whereby a feminine phonological profile can be identified against the background of a noun from the same root displaying a masculine phonological profile defined in terms of the floating consonant phenomenology. As we saw, *sãdal* resists assessment. But the opacity surrounding (*la*) *sãdal* or (*lə*) *šakal* extends well beyond *-al* or *-əl* nouns. Indeed, it affects the entire language. Thus, it is impossible to decide whether nouns such as, e.g., (*lə*) *skəlet* ‘skeleton’ or (*la*) *bəlet* ‘weasel’ should be analyzed along the lines of (71b) or (71c), that is whether they involve $\sqrt{[Fem]}$ or not. And the same goes for (*lə*) *dut* ‘doubt’ and (*la*) *rut* ‘road’, (*lə*) *pus* ‘thumb’ and (*la*) *mus* ‘foam’, (*lə*) *grup* ‘group’ and (*la*) *sup* ‘soup’, etc., etc. The fact that the uncertainty just documented can be illustrated by means of both feminine and masculine nouns speaks for itself and I conclude with (72).

(72)

- i. the involvement of $\sqrt{[Fem]}$ gives rise to what I have called a feminine profile or a ‘feminine’ noun
- ii. its involvement can be detected under such restricted conditions, that it plays no role in the ultimate allotment of the noun to one of the two genders
- iii. Gen does not operate as a probe in French

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