

# Getting Rid of MASC: The Encoding of Gender in Italian

Pietro Baggio  
QMUL

## Abstract

Nouns and noun phrases in Italian are typically described as coming in one of two genders: masculine or feminine. Accordingly, many analyses in the generative tradition take the Italian gender system to be *binary*, both in the morphology and in the syntax. The purpose of this paper is to argue that this view is fundamentally misguided, and leaves unexplained a large set of morphosyntactic asymmetries between so-called “masculine” and “feminine” nouns. I will contend that the Italian gender system is privative: feminine nouns contain a projection hosting a [FEM] feature in the syntax, while masculine nouns simply lack such a projection altogether

## 1 Introduction

Italian nouns, like in many other Romance languages, appear morphologically marked for one of two genders: so-called “masculine” and “feminine”. For nouns with animate referents, morphosyntactic gender is often determined semantically and correlates with the social or biological gender of the referent, as in (1)<sup>1</sup>. As shown in (2), however, exceptions abound. For nouns with inanimate referents, morphosyntactic gender is fixed arbitrarily and has no systematic semantic correlate, as (3) exemplifies.

- |     |    |  |    |  |
|-----|----|--|----|--|
| (1) | a. | <i>nemic-o</i> – <i>nemic-a</i><br>enemy-MS    enemy-FS<br>‘(male) enemy – female enemy’ | b. | <i>gatt-o</i> – <i>gatt-a</i><br>cat-MS    cat-FS<br>‘(male) cat – female cat’ |
| (2) | a. | <i>spi-a</i> – * <i>spi-o</i><br>spy-FS    spy-MS<br>‘(male/female) spy’                 | b. | <i>ran-a</i> – * <i>ran-o</i><br>frog-FS    frog-MS<br>‘(male/female) frog’    |
| (3) | a. | <i>alber-o</i> – * <i>alber-a</i><br>tree-MS    tree-FS<br>‘tree’                        | b. | <i>erb-a</i> – * <i>erb-o</i><br>grass-FS    grass-MS<br>‘grass’               |

Gender morphology appears on the noun itself, as well as on adjectives, possessive pronouns, articles, and demonstratives, which all undergo concord for gender and number features with the head noun, as shown in (4).

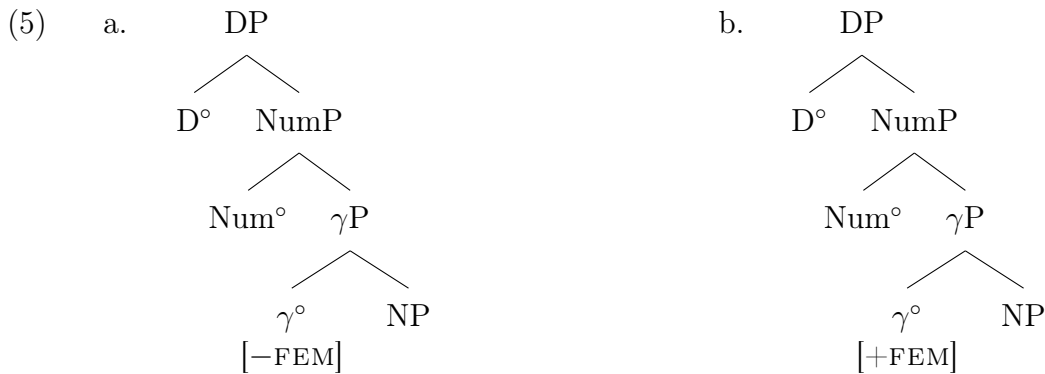
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<sup>1</sup>Abbreviations are as follows. ADJ: adjectiviser, AUG: augmentative, DIM: diminutive, F: feminine, INF: infinitive, M: masculine, NMLZ: nominaliser, PL: plural, S: singular, TV: theme vowel.

- (4) a. *quest-i gross-i alber-i assonnat-i*  
 this-MPL large-MPL tree-MPL sleepy-MPL  
 ‘these large sleepy trees’  
 b. *un-a tu-a erb-a aromatic-a*  
 a-FS your-FS grass-FS aromatic-FS  
 ‘an aromatic herb of yours’

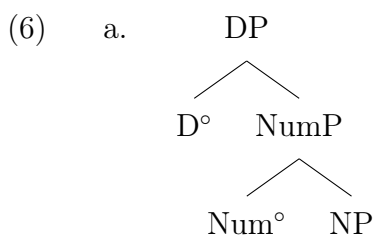
It seems *prima facie* reasonable to formalise a gender system of this kind by positing a binary feature opposition in the morphosyntax. This could be an opposition between two privative features, such as [MASC] and [FEM], or between two values of the same feature, such as [−FEM] and [+FEM] or [+MASC] and [−MASC].

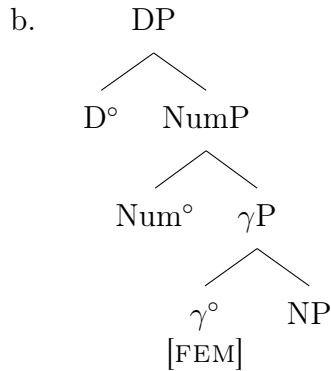
According to this line of reasoning, a masculine noun will be associated with a syntactic structure roughly as in (5a), and a feminine noun with the structure in (5b). Following much of the constructivist literature on gender (e.g. Picallo 1991, 2008, Acquaviva 2009, Kramer 2009, 2015, a.o.), the relevant features are introduced in the syntax in a low functional head of the nominal Extended Projection, which I have labelled ‘ $\gamma$ ’ for convenience. An in-depth discussion of the exact nature  $\gamma$ P will be deferred till §3.1.



Insofar as the only difference between the trees in (5) lies in the value of the feature [±FEM], the two structures can be reasonably expected to behave identically in the syntax, at least to the extent that syntactic operations should treat the [−] and [+] values in the same way. Similarly, there is no reason to expect the morphology to treat the feature [−FEM] any differently than the feature [+FEM].

As a matter of fact, however, I will argue that there is a host of morphosyntactic asymmetries between masculine and feminine nouns, which warrants a significant revision of the “symmetric” picture in (5). The most economical way to capture the Italian facts, while at the same time shedding new light on those asymmetries, is to abandon a binary system for gender in favour of a completely privative model. In particular, I will suggest that only feminine nouns project a  $\gamma$ P with a [FEM] feature, while masculine nouns lack  $\gamma$ P altogether. In other words, only feminine nouns have morphosyntactic gender, while masculine nouns are structurally deficient and truly *genderless*.





I will begin my discussion in §2 by laying out the empirical claims that warrant a privative model for gender. In §3, I will flesh out the core of the proposal by discussing in turn the way in which gender features are represented in the syntax (§3.1), the way in which they can be “selected” by specific roots (§3.2), and the way in which they are interpreted at the LF interface (§3.3), with particular focus on the purported distinction between “interpretable” and “uninterpretable” gender. Section §4 will then detail how the asymmetries sketched in §2 are captured, and §5 will conclude.

## 2 Masculine-Feminine Asymmetries in Italian

As was remarked above, describing the Italian gender system as revolving around a binary opposition between two feature values paints a somewhat misleading picture. Masculine and feminine nouns display in fact a striking number of asymmetries in their syntactic, morphological, and semantic behaviour. My contention is that there is no evidence for treating “masculine” and “feminine” as alternative values of the same feature: on the contrary, radically distinct representations are called for. In the subsections that follow, I will present a series of eight unexpected patterns where masculine and feminine nouns differ in their semantic (§2.1), morphological (2.2), and syntactic behavior (§2.3-2.6).

### 2.1 “MASC” as a semantic default

As noted in the introduction, gender is not always semantically interpreted in Italian. It is semantically vacuous on all inanimate nouns, and many animate nouns that have idiosyncratically invariant gender, such as *spi-a* (spy-FS) ‘spy’ and *ran-a* (frog-FS) ‘frog’, as well as *medic-o* (doctor-MS) ‘doctor’ and *rosp-o* (toad-MS) ‘toad’ (more on this in §3.3). Interestingly, a closer inspection of those cases where gender *does* seem to be interpreted reveals that only the feminine makes a semantic contribution, while the masculine behaves like a default. In this respect, masculine and feminine mirror the behaviour that has been observed respectively for plural and singular number in Sauerland (2003), Sauerland, Anderssen, and Yatsushiro (2005), and subsequent literature (e.g. Spector 2007, Zweig 2009, Mayr 2015). The following discussion will present the relevant evidence, focusing on nouns that denote animate individuals and freely permit both the masculine and the feminine, with interpretive differences.

First, only the feminine variant of such nouns is restricted to female referents, while its masculine counterpart can denote both female and male individuals. (7) makes this explicit by the addition of the attributive modifiers *maschio* ‘male’ and *femmina* ‘female’: the masculine is compatible with both, its feminine counterpart only with the latter.

- (7) a. *il sindaco maschio/femmina – la sindaco*  
 the.MS mayor-MS male/female the.FS mayor-FS  
*#maschio/femmina*  
 male/female  
 ‘the male/female mayor – the female mayor’
- b. *il gatto maschio/femmina – la gatta #maschio/femmina*  
 the.MS cat-MS male/female the.FS cat-FS male/female  
 ‘the male/female cat – the female cat’

Second, plural feminine nouns must denote a plural individual whose atomic parts are all female. On the other hand, a plural masculine noun imposes no similar restrictions, and is entirely compatible with contexts where some of its atomic parts are female individuals.

- (8) *i mie-i nemici – le mie nemiche*  
 the.MPL my-MPL enemy-MPL the.FPL my-FPL enemy-FPL  
 ‘my enemies (men and women) – my female enemies’

A third piece of evidence that masculine is semantically gender-neutral comes from the behaviour of gender under scope-taking modifiers, such as the adjectives *primo* ‘first’ and *altro* ‘other’ in (9).

- (9) a. *il mio primo figlio – la mia prima figlia*  
 the my-MS first-MS child-MS the.FS my-FS first-FS child-FS  
 ‘my first child (male or female) – my first daughter’
- b. *un altro gatto – un’altra gatta*  
 a.MS other-MS cat-MS a.FS other-FS cat-FS  
 ‘another cat (male or female) – another female cat’

In (9a), the feminine version presupposes that I have never had a daughter, even though I may have had one or more sons. The masculine version, on the other hand, presupposes that I have never had any child, *regardless of its gender*. In (9b), the feminine version presupposes that another female cat has been previously established in the discourse, while the masculine version simply presupposes the existence of another cat in the conversational background, *regardless of its gender*.

Similar evidence is provided by sentences where gender interacts with quantifiers, such as the determiner *ogni* ‘every’ (10) and the quantificational adverb *soltanto* ‘only’ (11).

- (10) a. *Ogni adulto con un figlio ha uno sconto.*  
 every adult with a.MS child-MS has a discount  
 ‘Every adult with a child has a discount.’
- b. *Ogni adulto con un-a figlia ha uno sconto.*  
 every adult with a-FS child-FS has a discount  
 ‘Every adult with a daughter has a discount.’
- c. *Ogni strega possiede un gatto.*  
 every witch owns a.MS cat-MS  
 ‘Every witch owns a cat.’
- d. *Ogni strega possiede un-a gatta.*  
 every witch owns a-FS cat-FS  
 ‘Every witch owns a female cat.’

- (11) a. *Soltanto Alice possiede un gatt-o.*  
 only Alice owns a.MS cat-MS  
 ‘Only Alice owns a cat.’  
 b. *Soltanto Alice possiede un-a gatt-a.*  
 only Alice owns a-FS cat-FS  
 ‘Only Alice owns a female cat.’

In (10a–b), the relevant noun is in the restriction of the quantifier *ogni*, while in (10c–d) it is in its nuclear scope. In both cases, the feminine will give rise to quantification over female individuals, and its masculine counterpart over individuals *regardless of their gender*. Similarly, when feminine *una gatta* is in the nuclear scope of the adverb *soltanto* in (11), the sentence means that Alice owns a female cat and nobody else owns a female cat, although other people may own male cats. When the masculine counterpart *un gatto* is used instead, the sentence means that Alice owns a cat and nobody else owns *any* cat.

A final piece of evidence comes from conjunction. As discussed in Sauerland (2003) and Heycock and Zamparelli (2005), the  $\phi$ -features that a conjunction of two DPs bears do not necessarily “percolate up” from any of the conjuncts themselves, but are rather determined by the *semantics* of the conjunction as a whole. For example, the &P subject in (12) denotes a nonatomic individual and consequently bears a [PL] number feature, even though both of its conjuncts are singular. This is because the denotation of the conjunct as a whole is only semantically compatible with a plural feature.

- (12) [*Adamo e Stefano*]<sub>&P<sub>[PL]</sub></sub> *sono arrivati-i.*  
 Adam and Stephen are arrived-MPL  
 ‘Adam and Stephen have arrived.’

Given this background, the sentence in (13) demonstrates again that masculine gender, unlike feminine gender, is semantically compatible both with male and female referents.

- (13) [*Il mi-o nemic-o e la mi-a nemic-a*]<sub>&P<sub>[MPL]</sub></sub> *sono*  
 the.MS my-MS enemy-MS and the.FS my-FS enemy-FS are  
*arrivat-i/\*-e.*  
 arrived-MPL/\*-FPL  
 ‘My male and my female enemies have arrived.’

All evidence considered so far demonstrates that masculine nouns *can* be interpreted as gender-neutral, and that this is impossible for their feminine counterparts. The examples in (14)–(15) further demonstrate that masculine nouns *must* always be interpreted as gender-neutral. If it was possible for masculine *figli-o* to be interpreted as strictly male-denoting, in addition to its uncontroversial gender-neutral reading, we would expect (14a) to be true in the context given. The expectation is not met. In contrast, the sentence in (15a), with the feminine counterpart *figli-a*, is true in the context given.

- (14) CONTEXT – Alice has three children, in the following order: Adamo(M), Beatrice(F), and Stefano(M).  
 a. #*Stefano è il second-o figli-o di Alice.*  
 Stephen is the.MS second-MS child-MS of Alice  
 ‘Stephen is Alice’s second child.’  
 INTENDED: ‘Stephen is Alice’s second son.’

- b. *Stefano è il second-o figli-o maschi-o di Alice.*  
 Stephen is the.MS second-MS child-MS male-MS of Alice  
 ‘Stephen is Alice’s second son.’
- c. *Stefano è il terz-o figli-o di Alice.*  
 Stephen is the.MS third-MS child-MS of Alice  
 ‘Stephen is Alice’s third child.’
- (15) CONTEXT – Alice has three children, in the following order: Beatrice(F), Adamo(M), and Maria(F).
- a. *Maria è la second-a figli-a (femmin-a) di Alice.*  
 Mary is the.FS second-FS child-FS female-FS of Alice.  
 ‘Mary is Alice’s second daughter.’
- b. #*Maria è la terz-a figli-a di Alice.*  
 Mary is the.FS third-FS child-FS of Alice  
 ‘Mary is Alice’s third daughter.’

A second piece of evidence that masculine nouns *must* be interpreted as gender-neutral comes from the contrast in (16). If masculine *gatt-i* permitted a strictly male-denoting reading, we would expect (16a) to be true in the context given, contrary to fact.

- (16) CONTEXT – Alice has four cats: Cumino (M), Pepe (M), Salvia (F), Menta (F).
- a. #*Alice possiede esattamente due gatt-i.*  
 Alice owns exactly two cat-MPL  
 ‘Alice owns exactly two cats (regardless of gender).’
- b. *Alice possiede esattamente due gatt-i masch-i.*  
 Alice owns exactly two cat-MPL male-MPL  
 ‘Alice owns exactly two male cats.’
- c. *Alice possiede esattamente due gatt-e.*  
 Alice owns exactly two cat-FPL  
 ‘Alice owns exactly two female cats.’

Despite our conclusion that masculine nouns are obligatorily gender-neutral, there are contexts in which they appear to be interpretable as strictly male-denoting, as in (17a).

- (17) a. *Ho parlato con il sindaco-o.*  
 have.1SG spoken with the.MS mayor-MS  
 MOST SALIENT READING: ‘I have spoken with the mayor, who is male.’  
 OTHER READING: ‘I have spoken with the mayor (gender unknown).’
- b. *Ho parlato con la sindaco-a.*  
 have.1SG spoken with the.FS mayor-FS  
 ONLY READING: ‘I have spoken with the mayor, who is female.’

However, facts as in (17a) are entirely compatible with our conclusion if they are analysed as the result of a pragmatic implicature (cf. Sauerland 2003, Spector 2007, Zweig 2009, Ivlieva 2013, Mayr 2015 on scalar implicatures with plurality). The sentence in (17a) contains a gender-neutral noun, *il sindaco*, and is thus inherently less informative than the alternative in (17b), which differs only insofar as it includes a semantically contentful gender specification on *la sindaca*. By Gricean (1961, 1975) reasoning<sup>2</sup>, an utterance

<sup>2</sup>As an alternative, Heim’s (1991) pragmatic maxim *Maximise Presupposition* could also be invoked for the same purpose. Given the scope of this article, I will not explore this possibility any further.

of (17a) will give rise to the conversational implicature that it was not possible for the speaker to utter the near-identical but more informative (17b). This will be possible in two cases: either the gender of the intended referent is not known to the speaker, or the intended referent is male, in which case the alternative in (17b) would be false. More generally, the upshot is that the use of a noun in its masculine form when a feminine alternative is available will either give rise to an ignorance inference or to a “maleness” inference. These are exactly the two readings that are available for (17a).

To summarise, this section has homed in on those animate nouns where gender appears to be contentful. The data presented has shown that there is a surprising asymmetry in the semantic profile of masculine and feminine genders: only the latter is ever interpreted as restricting the denotation of a noun. Masculine gender, on the other hand, is semantically vacuous. I have provided evidence that masculine *can* and *must* be interpreted as gender-neutral, and that apparent male-denoting interpretations are merely the result of a pragmatic implicature. Under a binary theory of gender, such asymmetry is completely unexpected and remains unaccounted for without stipulating that only one of the two feature values can receive a semantic interpretation.

## 2.2 Root allomorphy

Moving now onto the morphological behaviour of Italian gender, an interesting asymmetry between masculine and feminine nouns is that only the former seem to display root allomorphy conditioned by number, as in (18).

- |      |    |  |    |   |
|------|----|--|----|---|
| (18) | a. | <i>uom-o</i> – <i>uomin-i</i><br>man-MS man-MPL<br>‘man – men’ | c. | <i>tempi-o</i> – <i>templ-i</i><br>temple-MS temple-MPL<br>‘temple – temples’ |
|      | b. | <i>di-o</i> – <i>de-i</i><br>god-MS god-MPL<br>‘god – gods’    | d. | <i>bu-e</i> – <i>buo-i</i><br>ox-MS ox-MPL<br>‘ox – oxen’                     |

The masculine nouns in (18) display a completely idiosyncratic and unpredictable form of the root in the plural. Strikingly, there are no feminine nouns with a similar kind of allomorphy. This observation can also be extended to morphophonological readjustment rules conditioned by number. Many noun roots ending in velar /k/ or /g/ remain phonologically unchanged in the plural, as shown in (19a-b). Others, however, undergo a change of the final consonant from /k/ and /g/ respectively to /tʃ/ and /dʒ/, as exemplified by the noun *amico* in (19c). Interestingly, this phonological readjustment is only attested with masculine nouns: all roots ending in /k/ or /g/ remain entirely unaffected if they occur as part of a feminine noun, as (19d) demonstrates.

- |      |    |  |                           |
|------|----|--|---------------------------|
| (19) | a. | <i>lombric-o</i> – <i>lombrich-i</i><br>worm-MS worm-MPL<br>‘worm – worms’                       | /lom'briko/ – /lom'briki/ |
|      | b. | <i>dialog-o</i> – <i>dialogh-i</i><br>dialogue-MS dialogue-MPL<br>‘conversation – conversations’ | /di'alogo/ – /di'alogi/   |
|      | c. | <i>amic-o</i> – <i>amic-i</i><br>friend-MS friend-MPL<br>‘friend – friends’                      | /a'miko/ – /a'mitʃi/      |

- d. *amic-a* – *amich-e* /a'mika/ – /a'mike/  
 friend-FS friend-FPL  
 ‘friend – friends’

This evidence suggests that feminine gender, unlike masculine gender, is able to “shield off” the noun root from the application of certain context-sensitive morphological operations, such as allomorphy and readjustment rules. If masculine and feminine are introduced in the syntactic representation in the same way, we have no reason to expect them to behave differently when this representation is transferred to PF. Under a binary theory of gender, these observations would remain a mere coincidence.

### 2.3 “MASC” as a syntactic default

Moving onto the syntactic behaviour of Italian gender, a striking asymmetry between masculine and feminine is that only the former can be used as a morphosyntactic default whenever anything other than a run-of-the-mill nominal root is used to construct a DP.

A salient example comes from the behaviour of quotations. Any linguistic expression can be either *used* in a sentence as such, or *mentioned* as part of a metalinguistic statement. In the latter case, it can behave atomically, like a nominal root, and head a full DP as in (20). Let us refer to these cases, as well as any other DPs built on roots that are not listed in the lexicon of the language (see below), as *noncanonical nominals*.

- (20) [DP *Adam’s sudden ‘I don’t believe you’*] finally broke the silence.

In the case of canonical nominals like *erba* ‘grass’ and *gatto* ‘cat’, the appropriate gender value of the noun phrase can be determined in one of two ways: either by encyclopaedic knowledge of which gender the root idiosyncratically “selects” (more on this in §3.2), or, for those animate noun roots that can freely combine with both genders, by semantic considerations alone. Neither of these two strategies is available with inanimate *noncanonical nominals*: semantic considerations will be inapplicable, and so will considerations of root selection, because these cases involve nonlisted roots. Interestingly, Italian *noncanonical nominals* are obligatorily masculine as a default. This is the case, for example, when a DP is built from a quoted CP, as in (21).

- (21) a. *Ho bisbigliato un/\*un-a silenzios-o/\*-a ‘Ti odio’.*  
 have.1SG whispered a.MS/\*a-FS quiet-MS/\*-FS ‘you hate.1S’  
 ‘I whispered a quiet “I hate you”.’  
 b. *Il/\*la ‘Che noi-a!’ di Alice mi ha infastidito.*  
 the.MS/\*the.FS ‘what boredom-FS!’ of Alice me has annoyed  
 ‘Alice’s “What a bore!” annoyed me.’

This is also the case in nominals that contain nonverbal material, such as noises (22a), facial expressions (22b), and gestures (22c), as their root. In all such cases, the resulting DP is obligatorily masculine.

- (22) a. *Il/\*la [cough] di Alice mi ha svegliato.*  
 the.MS/\*the.FS of Alice me has woken  
 ‘Alice’s [cough] woke me up.’  
 b. *Il/\*la [grimace] di Alice mi ha spaventato.*  
 the.MS/\*the.FS of Alice me has frightened



- ‘Alice’s [grimace] frightened me.’
- c. *Alice ha fatto un/\*un-a lent-o/\*-a* [spin on one foot].  
 Alice has made a.MS/\*a-FS slow-MS/\*-FS  
 ‘Alice did a slow [spin on one foot].’

On a theory where masculine and feminine are different values of the same gender feature there is no reason to expect these facts. One could equally imagine the hypothetical Italian’, where quoted CPs always take masculine gender, noises-as-nouns always take feminine, and gestures-as-nouns can take both genders, with some subtle semantic difference. The systematic use of the masculine across all of these cases would remain a coincidence.

In order to capture this data, a binary theory of gender would have to be supplemented with a statement that the masculine can behave as a morphological default in certain contexts. This is no innocent theoretical move, and amounts to a fundamental revision of the Italian two-gender system into a *three*-gender system: one with masculine, feminine, and “default masculine”. An alternative is to suggest that masculine is *always* a default, paving the way for its wholesale elimination from the system. In the privative model that I put forward in §3, masculine “gender” is simply the absence of any gender specification.

## 2.4 Gender coercion

In §2.1 I focused on those animate nouns that can freely occur in both genders. This section will focus instead on those animate nouns that only occur with one gender, fixed arbitrarily on a root-by-root basis, as exemplified in (23). Nouns in (23a) are obligatorily masculine, while those in (23b) are obligatorily feminine, regardless of the gender of their referents. A careful look at these cases will reveal a further unexpected asymmetry: all and only the nouns in (23a) can be coerced into the opposite gender.

- (23) a. *medic-o, rosp-o, leopard-o, ragn-o, granchi-o, narval-o, ...*  
 doctor-MS toad-MS leopard-MS spider-MS crab-MS narwhal-MS  
 ‘doctor, toad, leopard, spider, crab, narwhal (male or female), ...’
- b. *spi-a, ran-a, zebra-a, aquil-a, aragost-a, balen-a, ...*  
 spy-FS frog-FS zebra-FS eagle-FS lobster-FS whale-FS  
 ‘spy, frog, zebra, eagle, lobster, whale (male or female), ...’

Typically, the social or biological gender of the intended referent for one of the nouns in (23) can be specified by the addition of the postnominal appositive modifiers *maschio* ‘male’ and *femmina* ‘female’, as in (24a-b), or by a full binominal structure, as in (24c-d).

- (24) a. *Un narval-o femmin-a volava ne-l cielo.*  
 a.MS narwhal-MS female-FS flew in-the sky  
 ‘A female narwhal was flying in the sky.’
- b. *Per questa pozione è necessari-a un-a ran-a maschi-o.*  
 for this potion is necessary-FS a-FS frog-FS male-MS  
 ‘A male frog is required for this potion.’
- c. *Un-a femmin-a di narval-o volava ne-l cielo.*  
 a-FS female-FS of narwhal-MS flew in-the sky  
 ‘A female narwhal was flying in the sky.’
- d. *Per questa pozione è necessari-o un maschi-o di ran-a.*  
 for this potion is necessary-MS a.MS male-MS of frog-FS

‘A male frog is required for this potion.’

As a matter of fact, there is a crucial difference between the “obligatorily” masculine nouns in (23a), and the obligatorily feminine ones in (23b). In jocular or childlike speech, it is entirely possible to coerce the masculine nouns in (23a) into feminine ones, if the intended referent is female<sup>3</sup>. This contrasts starkly with the behaviour of the feminine nouns in (23b), which result in complete ungrammaticality if coerced into the masculine.

- (25) a. %*medic-a*, %*rosp-a*, %*leopard-a*, %*ragh-a*, %*granchi-a*, %*narval-a*  
 doctor-FS toad-FS leopard-FS spider-FS crab-FS narwhal-FS  
 ‘female doctor/toad/leopard/spider/crab/narwhal’  
 b. \**spi-o*, \**ran-o*, \**zebr-o*, \**aquil-o*, \**aragost-o*, \**balen-o*  
 spy-MS frog-MS zebra-MS eagle-MS lobster-MS whale-MS  
 INTENDED: ‘male spy/frog/zebra/eagle/lobster/whale’

As will be discussed in §3.2, some of the feminine nouns in (23b) can indeed appear in the masculine gender, but this is only possible with the addition of an extra suffix as in (26), in stark contrast with the free coercibility demonstrated by masculine nouns in (25a).

- (26) a. *ran-a* – \**ran-o* – *ran-occhi-o*  
 frog-FS frog-MS frog-DIM-MS  
 ‘frog – (little/male) frog’  
 b. *aquil-a* – \**aquil-o* – *aquil-ott-o*  
 eagle-FS eagle-MS eagle-DIM-MS  
 ‘eagle – (little/male) eagle’

To summarise, we have observed that, given an appropriate linguistic register and a certain amount of linguistic creativity, even those masculine nouns that appeared to have invariant gender can in fact occur in the feminine. On the other hand, the mirror image pattern is unattested, at least in the absence of additional morphology enabling coercion into the masculine gender, as in (26). As was pointed out above, the attested feminine coercion is never semantically vacuous, and can only felicitously take place when the presence of feminine gender correlates with a feminine interpretation. Given that only animate individuals can be female, this proviso automatically rules out cases of coercion from masculine to feminine with inanimate nouns, unless the noun’s referent is anthropomorphised. We can capture our observations via the following generalisation, where the second clause immediately rules out coercion with any inanimate nouns.

- (27) All<sup>4</sup> and only masculine nouns can be coerced into feminine nouns, as long as coercion is not semantically empty.

If we keep in mind that the noncoercibility of inanimate nouns is independently derived and should not be treated as an analytical primitive, this generalisation can in turn be reformulated as follows.

- (28) The set of nouns that *require* a specific gender value, fixed arbitrarily on a root-by-root basis, only contains feminine nouns.

<sup>3</sup>I use the judgement marker ‘%’ to indicate that the relevant string is only accepted in some registers, as opposed to its usual sense of dialectally conditioned acceptability.

<sup>4</sup>See §4.4.1 for a more detailed revision of this claim, taking into accounts nouns like *pesce* ‘fish’.

It goes without saying that the generalisations in (27)-(28) would remain a mystery under a binary theory of gender, at least without some additional stipulation.

## 2.5 Mixed Gender Concord

A third syntactic asymmetry between masculine and feminine genders emerges from the patterns of nominal concord. Typically, all nominal gender and number features spread through the functional projections of the nominal spine and end up appearing obligatorily on every determiner, possessive pronoun, and adjectival modifier. This is exemplified in (29), where the gender feature introduced by  $\gamma^\circ$  spreads to the head of the DP projection, the definite article *le*, and to the adjective *affamate*.

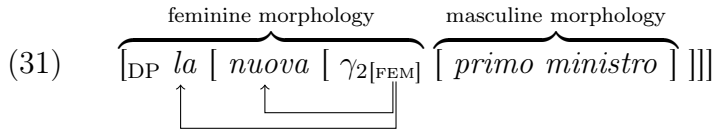
- (29) *le anatr-e affamat-e* [DP D<sub>[F]</sub><sup>°</sup> [ AP<sub>[F]</sub> [ <sub>$\gamma$ P</sub>  $\gamma^\circ$ <sub>[F]</sub> [NP] ]]]  
 the.FPL duck-FPL hungry-FPL  
 ‘the hungry ducks’
- 

For the purposes of this paper, I will not be concerned with the exact mechanics that underlie nominal concord, but I will simply assume that it can be successfully captured via the syntactic operation Agree (cf. Carstens 2000, 2016, Collins 2004, Laenzlinger 2005, Baker 2008, Danon 2011, Toosarvandani and van Urk 2014, Baier 2015).

Let us focus on the set of animate nouns that bear idiosyncratically fixed masculine gender regardless of the intended referent, such as those discussed in (23a) and *ministro* in (30). In (30a), masculine morphology is shared uniformly throughout the DP, as is expected for run-of-the-mill cases of nominal concord. As was discussed in §2.4, in casual and jocular registers it is possible to coerce the noun *ministro* into its feminine counterpart to indicate that the referent is female. When this happens, a single feminine feature is shared throughout the DP, as in (30b). As an alternative to coercion attested in formal and older registers, (30c) demonstrates that it is also possible for nouns like *ministro* to give rise to what I will refer to as Mixed Gender Concord (cf. Steriopolo and Wiltschko 2010, Pesetsky 2013, Acquaviva 2019). Masculine gender will appear on the noun itself and its low modifiers, such as the classifying adjective *primo*, while feminine gender will appear on higher modifiers, such as the intersective adjective *nuovo*, and the article. The interpretation will be identical to that of the completely feminine DP in (30b).

- (30) a. *il nuov-o prim-o ministr-o*  
 the.MS new-MS first-MS minister-MS  
 ‘the new prime minister (male or female)’  
 b. *%la nuov-a prim-a ministr-a*  
 the.FS new-FS first-FS minister-FS  
 ‘the new female prime minister’  
 c. *%la nuov-a prim-o ministr-o*  
 the.FS new-FS first-MS minister-MS  
 ‘the new female prime minister’

Patterns of Mixed Gender Concord indicate that it is sometimes possible for feminine gender features to be introduced in a higher structural position than  $\gamma$ P, resulting in the appearance of feminine morphology only upstream of that position. This is represented schematically in (31), where I use the symbol ‘ $\gamma_2$ ’ for object responsible for the introduction of exceptionally “high” feminine gender (see §4.5 for a more detailed analysis).



One may wonder if, alongside the cases of feminisation just discussed, there are any parallel cases of “masculisation”. Consider those animate nouns, listed above in (23b), that idiosyncratically require feminine gender regardless of the intended referent, such as the noun *spia*. By analogy with (31), we might expect it to be able to combine first with its ordinary feminine  $\gamma_{1[\text{FEM}]}$  and then with a higher head  $\gamma_{2[\text{MASC}]}$ , resulting in feminine-to-masculine Mixed Gender Concord and perhaps signalling that the intended referent is male. However, as exemplified in (32), there are no cases of “masculisation” in Italian.

- (32) a. *la nuov-a spi-a*  
the.FS new-FS spy-FS  
‘the new spy (male or female)’
- b. \**il nuov-o/-a spi-a*  
the.MS new-MS/-FS spy-FS  
INTENDED: ‘the new male spy’

To summarise, while it is possible for masculine nouns to undergo feminisation at a higher structural level, resulting in feminine morphology on determiners and high adjectives, the hypothetical mirror image process of “masculisation” is entirely unattested.

## 2.6 Mixed Gender Agreement

A strikingly similar asymmetry can be found in the interaction of gender with clausal agreement. Let us focus again on those animate nouns that come with fixed masculine gender, such as *ministro*. Typically, any masculine noun phrase will trigger corresponding masculine agreement on the verb, as in (33b). Similarly for feminine noun phrases: in the limited registers where *ministro* can be coerced into its feminine counterpart to denote a female referent, it will unexceptionally trigger feminine agreement, as exemplified in (33b). However, (33c) demonstrates an exceptional alternative to coercion, which I will refer to as Mixed Gender Agreement. In apparent violation of the matching requirement between agreement controllers and targets, the noun and all the DP-internal elements can bear masculine gender, while at the same time triggering feminine agreement on the auxiliary and the verb, reflecting the fact that the intended referent is female.

- (33) a. *Il nuov-o prim-o ministr-o è stat-o assassinat-o.*  
the.MS new-MS first-MS minister-MS is been-MS murdered-MS  
‘The new prime minister (male or female) has been murdered.’
- b. %*La nuov-a prim-a ministr-a è stat-a assassinat-a.*  
the.FS new-FS first-FS minister-FS is been-FS murdered-FS  
‘The new female prime minister has been murdered.’
- c. %*Il nuov-o prim-o ministr-o è stat-a assassinat-a.*  
the.MS new-MS first-MS minister-MS is been-MS murdered-MS  
‘The new female prime minister has been murdered.’

As for the cases of Mixed Gender Concord in §2.5, we can stipulate the existence of another “feminiser”, which I will label  $\gamma_{3[\text{FEM}]}$ , responsible for introducing a feminine gender feature *a* in high structural position immediately above the DP layer, as in (34). In this way, any  $\phi$ -feature probes in the clausal spine will agree with the feminine gender feature on  $\gamma_3$ , while the DP itself will remain internally masculine.

$$(34) \quad \overbrace{T^{\circ}_{[\phi:\_ ]}}^{\text{feminine morphology}} \quad \dots \quad [ \gamma_{3[\text{FEM}]} \overbrace{[\text{DP } \textit{il nuovo primo ministro}]}^{\text{masculine morphology}} ] ]$$

With this picture in mind, let us consider animate nouns like *spia* in (35), which occur with idiosyncratic feminine gender and lack a masculine counterpart (cf. §2.4). If masculine and feminine gender were represented syntactically in the same fashion, it would be reasonable to expect parallel cases of “masculisation”, where a DP that is internally feminine triggers masculine agreement on the verb when the intended referent is male. However, no such “masculisation” is attested, as exemplified by the ungrammatical (35b).

- (35) a. *La nuov-a spi-a è stat-a assassinat-a.*  
 the.FS new-FS spy-FS is been-FS murdered-FS  
 ‘The new spy (male or female) has been murdered.’  
 b. \**La nuov-a spi-a è stat-o assassinat-o.*  
 the.FS new-FS spy-FS is been-MS murdered-MS

In summary, the previous two sections have shown that masculine-to-feminine feature mismatches (“feminisation”) are attested in some constrained cases, while the mirror image feminine-to-masculine mismatches (“masculisation”) are completely impossible, which is entirely unexpected if feminine and masculine features behaved on a par.

## 2.7 Double plurals

A further surprising syntactic asymmetry between masculine and feminine gender comes from the behaviour of nouns with so-called “double plurals” (cf. Acquaviva 2002, 2008). These are nouns that have a unique form in the singular, but two alternative plurals, one for each gender. From a semantic perspective, there are at least two subtypes. In the cases in (36), which I will henceforth refer to as *Idiosyncratic Double Plurals*, the noun preserves its regular meaning in one of its plural forms, but obligatorily gives rise to an idiomatic meaning in the other plural form. For example, the singular noun *fuso* in (36a) means ‘spindle’. The masculine plural *fusi* preserves this meaning, while the feminine plural *fusa* has the completely unrelated idiosyncratic meaning ‘(cat) purrs’.

- (36) a. *fus-o* – *fus-i* – *fus-a*  
 spindle-MS spindle-MPL spindle-FPL  
 ‘spindle – spindles – (cat) purrs’  
 b. *fondament-o* – *fondament-i* – *fondament-a*  
 basis-MS basis-MPL basis-FPL  
 ‘basis – bases – building foundations’  
 c. *gest-o* – *gest-i* – *gest-a*  
 gesture-MS gesture-MPL gesture-FPL  
 ‘gesture – gestures – (noble) deeds’  
 d. *mur-o* – *mur-i* – *mur-a*  
 wall-MS wall-MPL wall-FPL  
 ‘wall – walls – surrounding walls (of a city/castle)’

On the other hand, the nouns presented in (37) are ambiguous in the singular, but their two meanings part ways in the plural. I will refer to these cases as *Specialised Double Plurals*. The singular noun *corno* ‘horn’, for example, can refer both to musical

instruments, and to the homonymous anatomical structures. In the plural, however, the masculine *corni* only refers the former, and the feminine *corna* to the latter.

- (37)
- a. *corn-o* – *corn-i* – *corn-a*  
 horn-MS horn-MPL horn-FPL  
 ‘horn – horns (musical) – horns (anatomical)’
  - b. *bracci-o* – *bracc-i* – *bracci-a*  
 arm-MS arm-MPL arm-FPL  
 ‘arm – arms (mechanical) – arms (anatomical)’
  - c. *cigli-o* – *cigl-i* – *cigli-a*  
 eyelash-MS eyelash-MPL eyelash-FPL  
 ‘eyelash/edge – edges – eyelashes’
  - d. *membr-o* – *membr-i* – *membr-a*  
 member-MS member-MPL member-FPL  
 ‘member – members (of a group) – members (anatomical)’

A closer look at both Idiosyncratic and Specialised Double Plurals reveals an unexpected regularity in the nouns’ gender values. All Double Plural nouns are invariably masculine in the singular. Focusing further on the Idiosyncratic Double Plural nouns in (36), we observe that the meaning of the singular noun is always preserved in the masculine plural, while the idiomatic meaning is always introduced by the feminine plural. These two observations are summarised in (38), which represents schematically the unexpectedly unattested patterns.

- (38)
- a. ✗ *noun-FS* – *noun-MPL* – *noun-FPL*
  - b. ✗ *noun-MS* – *noun-MPL* – *noun-FPL*  
*MEANING<sub>1</sub>* – *MEANING<sub>2</sub>* – *MEANING<sub>1</sub>*

The absence of pattern (38a) and the nonattestation of pattern (38b) may reasonably be expected to be correlated, and they both point to the need to attribute a significantly different syntactic representation to the two gender values, as I will be done in §3.

## 2.8 Gender switch

There is a small subset of nouns in Italian with the peculiar property of obligatorily switching gender value between the singular and the plural, as exemplified below.

- (39)
- a. *centinai-o* – *?\*centina-i* – *centinai-a*  
 hundred-MS hundred-MPL hundred-FPL  
 ‘hundred – hundreds’
  - b. *uov-o* – *?\*uov-i* – *uov-a*  
 egg-MS egg-MPL egg-FPL  
 ‘egg – eggs’
  - c. *pai-o* – *?\*pa-i* – *pai-a*  
 pair-MS pair-MPL pair-FPL  
 ‘pair – pairs’

As can be observed from (39), “gender switch” has a fixed directionality: all the relevant nouns are masculine in the singular, and feminine in the plural. As schematised in (40), there are no cases of gender switch in the opposite direction: no nouns, that is, which

obligatorily bear feminine gender in the singular and masculine gender in the plural.

(40) ✗ *noun*-FS – ?\**noun*-FPL – *noun*-MPL

In conclusion, I have presented a series of eight phenomena that reveal a deep asymmetry in the way that masculine and feminine gender should be represented. One could always supplement a binary model of gender, for example, by conceding that the masculine can double as a “default” in certain contexts. This and similar revisions, however, would give rise to an essentially *ternary* system, with two marked values and a default. Alternatively, if the masculine gender is taken to always be a default, the next logical step will be to get rid of it altogether and put forward a *privative* model of gender. This is what the remainder of this paper will attempt to do.

### 3 Fleshing out the proposal

#### 3.1 How is Gender Represented?

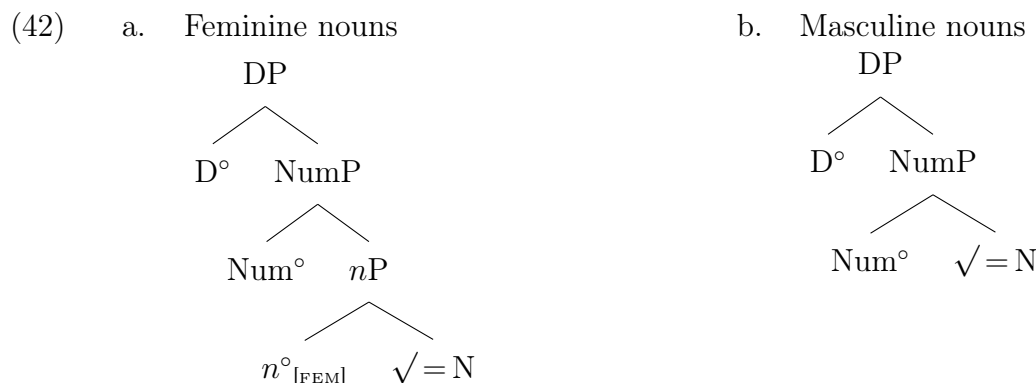
The remainder of this paper is devoted to fleshing out my privative model of the Italian gender system, and to demonstrating how it can naturally shed light those puzzling asymmetries between masculine and feminine that I have described in the previous sections (§2.1 to §2.8).

Following Ferrari-Bridgers (2008), Kihm (2008), Lowenstamm (2008), Acquaviva (2009, 2019), Kramer (2009, 2015), and Kučerová (2019), I will adopt the assumption that gender is introduced as a feature on the categoriser  $n^\circ$  rather than a functional head  $\text{Gen}^\circ$ , as is instead suggested by Picallo (1991, 2008). In order to reflect this,  $\gamma\text{P}$  will henceforth be relabelled as  $n\text{P}$ . Given this background, I argue that feminine nouns consist of roots that are nominalised by the projection of a categoriser  $n^\circ$  bearing the privative feature [FEM]. The introduction of such a feature in the syntax is essentially a way to “mark” a category-less root as nominal. As for masculine nouns, I will exploit Borer’s (2013b, 2014) notion of *contextual categorisation*, and suggest that they consist of roots that are simply categorised as nouns when they occur in the context of some immediately dominating nominal functional structure, such as NumP. From this perspective, the contrast in Italian between the roots  $\sqrt{\text{ERB}}$  and  $\sqrt{\text{ALBER}}$  in (41a-b) is entirely parallel to the contrast in English between  $\sqrt{\text{FOSSIL}}$  and  $\sqrt{\text{SALT}}$  in (41c-d): in order to be used as nouns or verbs, respectively, the former roots require an overt categoriser ( $n^\circ_{[\text{FEM}]}$  and  $v^\circ_{\text{-ise}}$ , respectively), while the latter can simply acquire their categorial status by virtue of combining with relevant functional structure (e.g. NumP and VoiceP), and systematically reject the addition of a category-defining head.

(41)	<p>a. *<i>erb-o</i>      – <i>erb-a</i>              grass-MS    grass-FS              ‘grass’</p> <p>c. *<i>to fossil</i> – <i>to fossil-ise</i></p>	<p>b. <i>alber-o</i>    – *<i>alber-a</i>              tree-MS    tree-FS              ‘tree’</p> <p>d. <i>to salt</i> – *<i>to salt-ise/-ify</i></p>
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The contextual categorisation approach makes the radical suggestion that masculine nouns should be not only featurally poorer, but also structurally smaller than feminine nouns, which I will argue below (§4.2) makes the correct predictions. A particular theoretical implementation of the way in which syntactic operations like Agree can be modelled in this privative system is beyond the purview of the paper, but both Preminger’s (2014,

2017, 2018) Obligatory Operations model and Deal’s (2015, 2020) Interaction-Satisfaction model are suitable candidates. The trees in (42) summarise my proposal.



It should be noted that  $n^\circ_{[\text{FEM}]}$  is not the only nominal categoriser that introduces the formal feature [FEM] in the syntax. Some category-changing heads, such as the deadjectival nominalisers in (43a) and the deverbal nominalisers in (43b), also obligatorily bear [FEM]. For the purposes of this paper, however, I will only focus on  $n^\circ_{[\text{FEM}]}$ .

- (43) a. *vicin-anz-a/\*-o*, *gentil-ezz-a/\*-o*, *giust-izi-a/\*-o*  
 close-NMLZ-FS/\*-MS kind-NMLZ-FS/\*-MS just-NMLZ-FS/\*-MS  
 ‘closeness, kindness, justice’
- b. *bolli-tur-a/\*-o*, *evapora-zion-e*  
 boil-NMLZ-FS/\*-MS evaporate-NMLZ-FS/\*-MS  
 ‘boiling, evaporation’

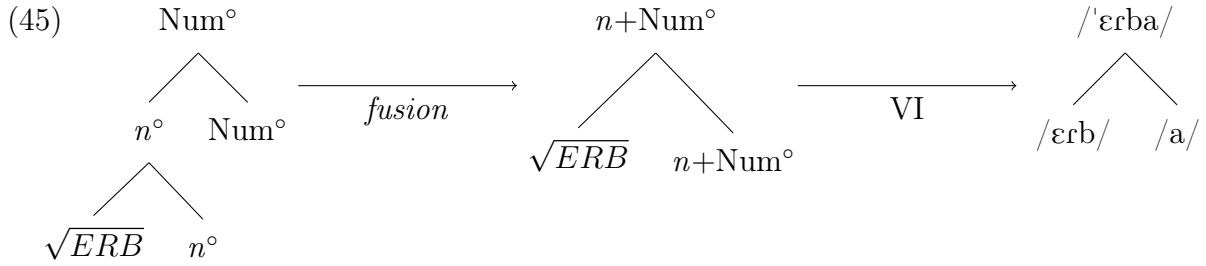
Some comments on the morphological expression of gender are now in order. First, as is demonstrated by the examples in (44), gender and number features on nouns are expressed together by a single portmanteau morpheme.

- (44) a. *alber*- $\boxed{o}$  – *alber*- $\boxed{i}$   
 tree-MS tree-MPL  
 ‘tree – trees’
- b. *erb*- $\boxed{a}$  – *erb*- $\boxed{e}$   
 grass-FS grass-FPL  
 ‘grass – grasses’

In order to account for the cumulative exponence of gender and number, I adopt the toolkit of mainstream Distributed Morphology<sup>5</sup>. In particular, I assume that phonological words correspond to complex heads built either in the syntax via head-movement, or at the PF interface via a postsyntactic operation such as *Lowering* (Embick and Noyer 2001) or *Local Dislocation* (Embick 2007). I also assume that the operation *Fusion* (Halle and Marantz 1993, Bobaljik 1997, Embick and Noyer 2001, Chung 2007) applies to the nodes  $n^\circ$  and  $\text{Num}^\circ$  at PF prior to Vocabulary Insertion. Accordingly, (45) presents a schematic derivation for the morphophonological representation of the noun *erba* in (44b).

<sup>5</sup>Nothing crucial hinges on this choice. See Svenonius (2012), Adger (2013), and Merchant (2015) for an alternative to complex heads in terms of *spans*, as well as Radkevich (2010) for an alternative to *Fusion* in terms of nonterminal insertion.





Second, the specific phonological shape of the gender-number portmanteaus may often depend on the root that the suffixes attach to: alongside the default exponents in (44), there are also many “exceptional” ones, as exemplified in (46). Following Armelin (2014), we can simply capture these patterns as the result of context-sensitive Vocabulary Insertion rules, with no need to appeal to the notion “noun class” in the syntax (but see Harris 1991, 1999, Oltra-Massuet 1999, and in particular Lampitelli 2010 for alternatives). The application of the elsewhere VI rules in (47a-d) will output the suffixes in (44), while the application of VI rules that are contextually specified for specific roots, as in (47e-h), will output those in (46).

- (46) a. *problem*-[a] – *problem*-[i]  
 problem-MS – problem-MPL  
 ‘problem – problems’
- b. *cener*-[e] – *cener*-[i]  
 ash-FS ash-FPL  
 ‘ash – ashes’

- (47) a. [S] ↔ /o/ elsewhere  
 b. [PL] ↔ /i/ elsewhere  
 c. [FEM, S] ↔ /a/ elsewhere  
 d. [FEM, PL] ↔ /e/ elsewhere  
 e. [S] ↔ /a/ / {√PROBLEM, ...} \_\_\_  
 f. [PL] ↔ /i/ / {√PROBLEM, ...} \_\_\_  
 g. [FEM, S] ↔ /e/ / {√CENER, ...} \_\_\_  
 h. [FEM, PL] ↔ /i/ / {√CENER, ...} \_\_\_

Finally, it should be highlighted that only feminine gender-number portmanteaus are true cumulative exponents of both gender and number features, as shown in (47c,d,g,h). “Masculine” gender-number portmanteaus, such as those in (47a,b,e,f), are instead the bare exponents of number when the gender feature [FEM] has not been introduced in the derivation in the first place. To be precise, they are not portmanteau morphemes at all. This has one important theoretical consequence. Even though my model of gender is privative from a *syntactic* point of view, insofar as feminine nouns include an  $n_{[FEM]P}$  projection and masculine nouns do not, it does not follow that the system is also privative *in the morphology*. In fact, the PF computation deals with a binary opposition: one between heads that bear both gender ([FEM]) and number features, and heads that bear number features only. Even though the syntactic representations of gender are featurally privative, the appearance of “binarity” on a morphological level comes for free.

### 3.2 How is Gender “Selected”?

A question that naturally follows from the proposal in (42) is how to account for the apparent selectional relationship between roots and gender. Our privative model needs a

way to represent the fact that the root  $\sqrt{ERB}$  in (48a) requires the presence of the feminine gender when it is used as a noun, while the root  $\sqrt{ALBER}$  in (48b) is incompatible with it altogether and thus requires the “masculine gender”.

- (48) a. *erb-a* – \**erb-o*  
 grass-FS \*grass-MS  
 ‘grass’
- b. *alber-o* – \**alber-a*  
 tree-MS \*tree-MS  
 ‘tree’

If roots are entirely deprived of syntactic information, as argued by Marantz (1995, 1997), Borer (2005a,b, 2013b, 2014), De Belder (2011), and de Belder and van Craenenbroeck (2015), gender selection cannot be captured by positing a suitable uninterpretable feature, such as [*uFEM*], on the relevant roots. Even if this was conceded as possible, following Harley (2014), a [*uFEM*] feature on  $\sqrt{ERB}$  would only raise further issues. First, without a significant deviation from the way labelling and feature uninterpretability are understood (cf. Chomsky 2000, 2001, 2008, *et seq.*), the putative root  $\sqrt{ERB}_{[uFEM]}$  would incorrectly select into its c-command domain for a  $n_{[FEM]}P$  complement, instead of an  $n_{[FEM]}P$  “mother”. Secondly, it is not obvious that  $\sqrt{ERB}$  requires the feminine gender at all when it occurs as part of adjectives, verbs, and other derived nouns, as in (49).

- (49) *erb-os-o*, *dis-erb-a-re*, *erbi-cid-a*  
 grass-ADJ-MS DE-grass-TV-INF grass-CIDE-MS  
 ‘grassy, to weed, herbicide’

Granted that gender selection cannot be implemented via features on roots, the natural alternative is to capture it via filtration at the interfaces. For the current purposes, I will suggest that feminine nouns are *morphologically bound nouns*: namely, nouns with a morphological well-formedness condition at PF that requires their root to combine with another head within a specified domain. In the case at hand, the relevant domain will be the complement of the first nominal functional head, which is either the projection of the categoriser  $nP$  or the root itself, when the latter is contextually categorised as a noun. In Borer’s (2013b) terminology, this is the maximal *C(ategorial)-core* of the nominal Extended Projection. We can formulate the relevant boundness requirement as in (50). Accordingly, a certain set of roots is subject to a PF filter that applies after transfer but before Fusion and VI, and prevents them from forming a complex head *directly* with a nominal functional head, in the absence of an intermediate head.

- (50) MORPHOLOGICAL BOUNDNESS FILTER (MBF):  
 $\times$  [ $F^\circ$  [ $=N^\circ$   $\sqrt{\quad}$ ]  $F^\circ$  ]  
 ‘The spell-out of a nominal C-core containing the root  $\sqrt{\quad}$  is ill-formed in the absence of any other head’

Roots that are subject to this morphological constraint are unable to be contextually categorised as nouns directly by a functional head, and require a categoriser to project before any functional material can be merged. As evidence for this approach, there are various feminine nouns that can also exceptionally occur in the masculine gender, as long as they are first combined with one of a limited set of derivational morphemes, including the nonproductive diminutive suffixes *-occhi-* (51a), *-ott-* (51b), and the augmentative suffix *-on-* (51c).

- (51) a. *ran-a* – \**ran-o* – *ran-occhi-o*  
 frog-FS frog-MS frog-DIM-MS  
 ‘frog – (little) frog’  
 b. *aquil-a* – \**aquil-o* – *aquil-ott-o*  
 eagle-FS eagle-MS eagle-DIM-MS  
 ‘eagle – (little) eagle’  
 c. *scimmi-a* – \**scimmi-o* – *scimmi-on-e*  
 monkey-FS monkey-MS monkey-AUG-MS  
 ‘monkey – (big) monkey’

If these three morphemes are analysed as category-defining heads that can project a  $nP$  above the root, just like  $n^\circ_{[FEM]}$  though not as productively, it will follow that feminine nouns can exceptionally appear without feminine morphology in their presence.

To sum up the proposal, the ungrammaticality of the masculine noun \**erbo* follows from the fact that the root  $\sqrt{ERB}$  is subject to the PF filter in (50). As shown in (52), this constraint is violated in the absence of the feminine categoriser or any suitable alternative category-defining head.

- (52) a. ✗  $[_{Num^\circ} [_{=N^\circ} \sqrt{ERB}] Num^\circ]$   
 b. ✓  $[_{Num^\circ} [n^\circ [\sqrt{ERB}] n^\circ_{[FEM]}] Num^\circ]$

The ungrammaticality of feminine \**albera*, on the other hand, follows from economy considerations: the projection of  $n_{[FEM]}P$  is not needed in the syntax, because the root  $\sqrt{ALBER}$  can simply be *contextually categorised* as a noun in the presence of the functional structure that dominates it; it is not needed at PF, because  $\sqrt{ALBER}$  is not subject to the MBF in (50); finally, it cannot be assigned any interpretation at LF because its available meaning is only compatible with animate referents (see §3.3 for more details). Consider finally a root that, like  $\sqrt{ALBER}$ , is not subject to the MBF but that, unlike it, does fulfil the animacy requirement for  $n^\circ_{[FEM]}$ ’s interpretability. In this case, we predict feminine gender to be optionally available and to correlate with a semantic difference, as demonstrated in (53) for the root  $\sqrt{NEMIC}$ .

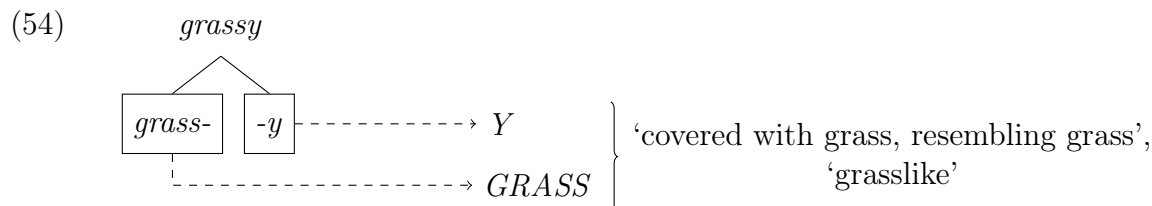
- (53) a. *nemic-o*  
 enemy-MS  
 ‘(male) enemy’  
 b. *nemic-a*  
 enemy-FS  
 ‘female enemy’

### 3.3 How is Gender Interpreted?

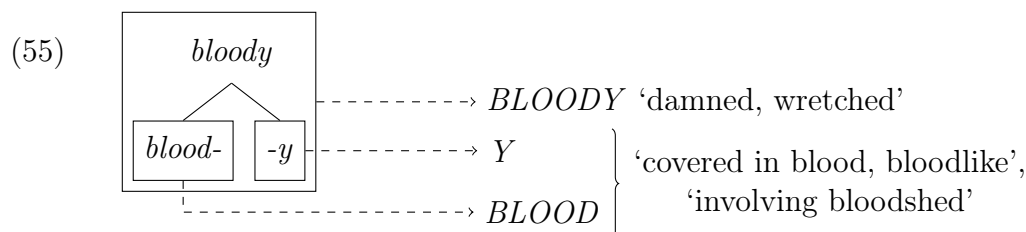
To complete the picture, I will discuss the way in which gender is interpreted at the LF interface, in light of the fact that feminine morphology does not always correlate with a systematic interpretation. As has been amply demonstrated above, feminine gender is never interpreted on inanimate nouns, and only on a subset of animate nouns is it interpreted as restricting their denotation to female individuals. In this section, I will propose a system of content assignment rules that independently derives the divide between “interpretable” and “uninterpretable” gender without any recourse to an encoding of that distinction in the syntactic representation (*contra* Steriopolo and Wiltschko 2010, Percus 2011, Matushansky 2013, Kramer 2009, 2015).

The crucial theoretical ingredient of my proposal will be the mechanics of nonpositional content assignment developed in Borer (2013a,b), which further elaborates on

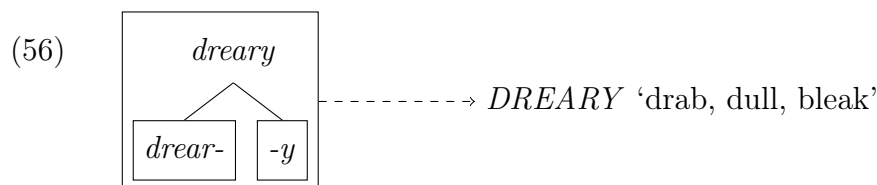
work by Marantz (2001, 2008) and Arad (2003, 2005). In this model, structures of various sizes are built in the syntax and then matched with atomic content at a postsyntactic stage of the derivation. In the limit case, each individual terminal node is matched with an independent meaning, resulting in full semantic compositionality. This can be exemplified with the morphologically complex adjective *grassy*, comprising of the nominal root *grass*-<sup>6</sup> and the category-changing adjectiviser *-y*. As (54) shows, the meaning *GRASS* is assigned to the root *grass*-, and the meaning *Y* (roughly, ‘full of’ or ‘-like’) to the adjectiviser *-y*, giving rise to a compositional interpretation. Other adjectives with a similar profile are *sandy* (‘full of sand, sandlike’), and *wavy* (‘full of waves, wavelike’).



In other cases, it may well be possible to match individual terminal nodes with independent content, but there may also be an option to assign atomic meaning to the whole phrasal structure, as long as certain size thresholds are not exceeded<sup>7</sup>. This results in the coexistence of a fully compositional and transparent meaning with a noncompositional, idiosyncratic one for the same word. The two possibilities will be entirely free but mutually exclusive, as the assignment of phrasal meaning “overrides” the content of the constituent parts. Exemplifying once again with English adjectives, (55) offers a schematic representation for the assignment of content to the word *bloody*. Other adjectives that fit this profile are *balmy* (‘balmlike, fragrant’ or ‘crazy’), and *catty* (‘catlike’ or ‘malicious’).



Finally, there may be cases where content can only be matched with a complex phrasal structure, resulting in obligatorily noncompositional content. Adjectives that exemplify this scenario, as shown in (56), are *dreary* (‘bleak’, not ‘#full of drear’), *nifty* (‘useful’, not ‘#full of nift’), and *sturdy* (‘strong’, not ‘#full of sturd’).



<sup>6</sup>I remain agnostic as to whether the root  $\sqrt{GRASS}$  is nominalised by a silent *nP*, or simply in the context of the adjectiviser suffix *-y* (as in Borer 2014).

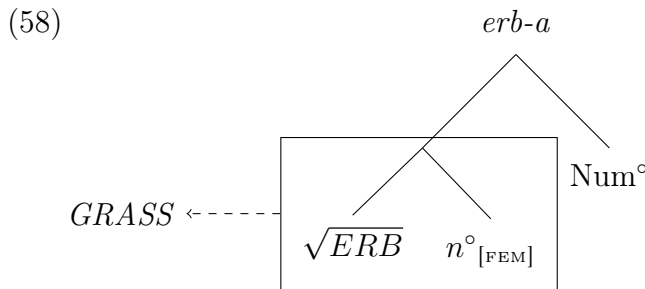
<sup>7</sup>For Arad (2003), the domain for noncompositional content assignment cannot exceed the first category-defining node. For Borer (2013b), it is delimited by the first functional node of the Extended Projection. For Marantz (2013) and Harley (2014), it is defined by VoiceP. This paper will adopt Borer’s approach, as will become relevant in §4.6.

The three possible scenarios of content assignment are summarised in the table below, with all examples drawn from English denominal adjectives.

(57) CONTENT ASSIGNMENT (English *-y* adjectives)

Terminal content assignment	Phrasal content assignment	Examples
✓	✗	<i>grassy, milky, sandy, wavy</i>
✓	✓	<i>balmy, bloody, catty, moony</i>
✗	✓	<i>dreary, nifty, sturdy, swarthy</i>

The remainder of the section will apply this model of meaning assignment to capture the interpretative patterns of gender in Italian. I will begin by discussing those nouns that are obligatorily feminine because of the MBF, which can be further subdivided into those in which feminine gender appears to be interpreted, and those in which it is not. The latter nouns, such as *erba* ‘grass’ and *persona* ‘person’, will be the equivalent of the English adjective *dreary*. Namely, content can only be matched with a phrase that includes both the root  $\sqrt{ERB}$  and the categoriser  $n^\circ_{[FEM]}$ , as shown in (58).

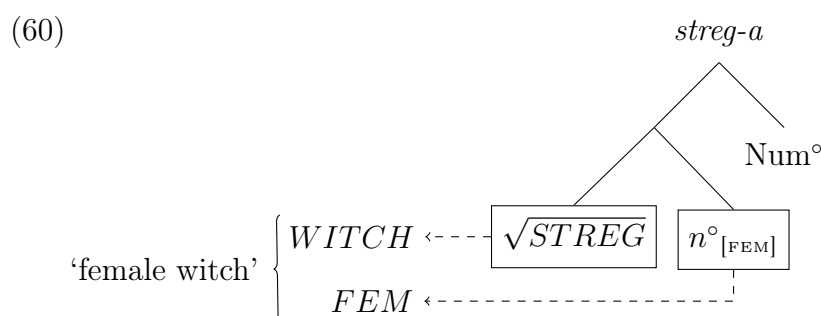


In (58), neither the root  $\sqrt{ERB}$  nor the categoriser  $n^\circ_{[FEM]}$  receive content in isolation: the entire phrase that they comprise is matched, only once, with atomic content. As a consequence, nothing special needs to be said in order to capture the fact that feminine morphology does not correlate with a corresponding interpretation in the noun *erba*. More generally, the need to postulate the existence of two entirely different breeds of gender, depending on whether it is interpreted or not (cf. Steriopolo and Wiltschko 2010), evaporates. There is always a meaning (henceforth represented as *FEM*) that can be assigned to the categoriser  $n^\circ_{[FEM]}$ ; however, when this categoriser merges with certain roots, such as  $\sqrt{ERB}$ , assignment of atomic content to the entire phrasal complex overrides the meaning of its constituent parts, making *FEM* unavailable. The distinction between “interpretable” and “uninterpretable” gender simply reduces to the independently needed one between “idiomatic” and “transparent” bimorphemic structures.

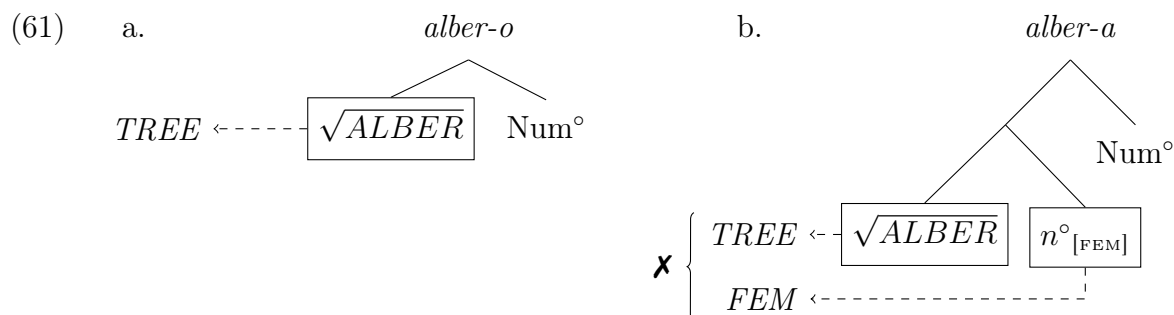
As for obligatorily feminine nouns that denote a female referent, such as *sorella* ‘sister’, it is a nontrivial task to establish whether each terminal is assigned content separately and the “feminine” interpretation is contributed compositionally by the categoriser  $n^\circ_{[FEM]}$ , or whether content assignment proceeds noncompositionally and the “feminine” interpretation is a mere lexical entailment. To determine the appropriate approach, we would need to observe if the “feminine” reading disappears in the absence of  $n^\circ_{[FEM]}$ , but projecting a structure without it would violate the MBF that the roots of these nouns are subject

to. Fortunately, as was discussed in §3.2, some of these bound nouns can exceptionally appear without  $n^\circ_{[FEM]}$ , as long as an alternative derivational morpheme projects instead. In this light, consider the noun *strega* ‘(female) witch’ in (59). As indicated by the ungrammaticality of the simple masculine form, the root  $\sqrt{STREG}$  is subject to the MBF. However, the filter can be satisfied not only by the categoriser  $n^\circ_{[FEM]}$ , but also by the categoriser *-on*<sup>8</sup>, in which case the meaning *WITCH* is preserved but the female gender entailment disappears. We can thus conclude that the “feminine” interpretation comes from the categoriser  $n^\circ_{[FEM]}$ , rather than the lexical content. The feminine noun *strega* will then be the equivalent of the English adjective *grassy*, insofar as meaning is fully compositional and content is assigned individually to each terminal, as in (60).

- (59) *streg-a* – \**streg-o* – *streg-on-e*  
 witch-FS    witch-MS    witch-ON-MS  
 ‘(female) witch – (male) witch’



As for masculine nouns, there are three important subcases that need to be distinguished, which I will discuss in turn. The first is exemplified by the noun *albero* ‘tree’, whose feminine counterpart \**albera* is unacceptable. The root  $\sqrt{ALBER}$  is not subject to the MBF: it can merge directly with  $Num^\circ$ , acquire its nominal categorial status contextually, and finally match with the atomic content *TREE* at LF, as shown in (61a). If  $n_{[FEM]}P$  is projected, as in (61b), there will be no other choice than to assign the meaning *FEM* to its head. This, however, results in unacceptability because of the inherent incompatibility of *FEM* with a noun denoting inanimate individuals. Given a context capable of coercing *TREE* into an animate denotation, such as a fairytale with anthropomorphised trees, even the feminine *albera* can become acceptable, as (62) shows.



<sup>8</sup>Even though *-on* in (i) is homophonous with the augmentative morpheme, I do not identify the two, because no augmentative meaning can be detected in *stregone*. The suffix *-on* is in fact independently attested as a distinct denominal, deadjectival, and deverbal nominaliser:

- (i) *fif-on-e*, *mamm-on-e*, *furb-one*, *piagn-one*  
 fear-ON-MS mother-ON-MS sly-ON-MS cry-ON-MS  
 ‘coward, mummy’s boy, sly person, crybaby’

- (62) %L' alber-o Mari-o e l' alber-a Mari-a hanno avuto un lungo  
 the.MS tree-MS Mario-MS and the.FS tree-FS Maria-FS have had a long  
 e felice matrimonio.  
 and happy marriage  
 'The tree Mario and the tree-ess Maria have had a long and happy marriage.'

The second case can be exemplified by the noun *nemico* 'enemy'. As in the previous case, the root  $\sqrt{NEMIC}$  can merge directly with the head  $\text{Num}^\circ$ , which contextually categorises it as a noun, and it can be matched with the meaning *ENEMY* at LF. However, if  $n_{[\text{FEM}]}\text{P}$  projects, the meaning of the categoriser, *FEM*, will be entirely compatible with the noun's animate denotation and will not result in unacceptability. The upshot is that the root  $\sqrt{NEMIC}$  can merge either directly with  $\text{Num}^\circ$  to form the masculine noun *nemico*, or with  $n^\circ_{[\text{FEM}]}$  first to form feminine noun *nemica* 'female enemy', as shown in (63).

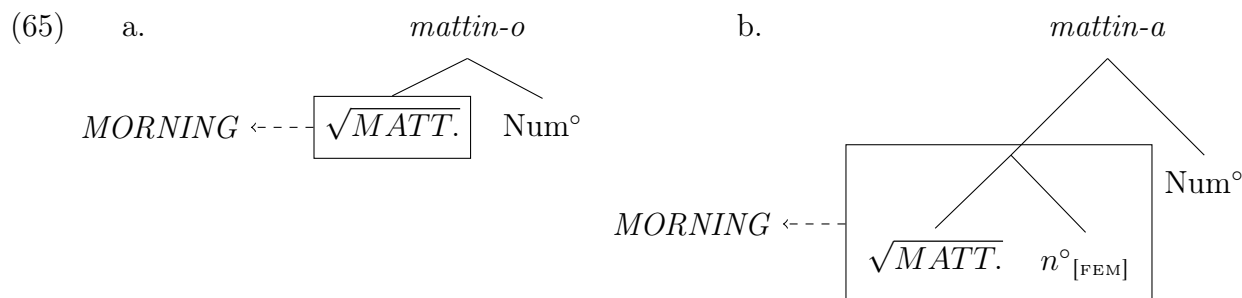
- (63)
- 

Finally, the third case can be exemplified by the noun *velo* 'veil'. Once again, the root  $\sqrt{VEL}$  is not subject to the MBF, so it can merge directly with  $\text{Num}^\circ$  to form a noun, and it can be assigned the content *VEIL* at LF, as in (64a). Given the fact that the denotation denotation *VEIL* is inanimate and is thus incompatible with the meaning *FEM* of  $n^\circ_{[\text{FEM}]}$ , we expect that the projection of  $n_{[\text{FEM}]}\text{P}$  should be unable to be interpreted compositionally, and should consequently be ruled out in the same way as in *\*albera*. As it turns out, the feminine noun *vela* is not ungrammatical, but has different meaning entirely: 'sail (of a ship)'. The combination of the root  $\sqrt{VEL}$  with  $n^\circ_{[\text{FEM}]}$  is therefore acceptable because the resulting phrase as a whole can be assigned the atomic content *SAIL*, overriding the meaning *FEM* of its subconstituent, as in (64b). In other words, content assignment can alternatively target both a terminal node, as in the masculine *velo* (64a), and a complex phrasal node, as in its feminine counterpart *vela* (64b).

- (64) a.
- 
- b.
- 

As a rare limit case of the last scenario, imagine a content *X* that can be associated at LF both with a root terminal node, and with an  $n_{[\text{FEM}]}\text{P}$  containing that same root. The result will be a noun that can freely occur both in the masculine and the feminine gender

without any change in meaning, depending on whether content is matched with the structure compositionally or noncompositionally, respectively. I want to suggest that this is what happens in the case of nouns such as *tavolo/tavola* ‘table’, and *mattino/mattina* ‘morning’, as shown in (65). To be sure, there is often a marginal “specialisation” in the use of the two alternative forms: for example, there are conventionalised expressions where only masculine *mattino* is used, and the feminine *tavola* is preferred when describing a table set for a meal (cf. Giusti 2015). Nevertheless, subtle differences in usage and conceptual associations do not warrant positing two independent meanings at LF.



The table in (66), analogous to the one in (57) for English, summarises my proposal for the way in which the matching of content with roots and larger structure derives the attested patterns of gender interpretability in Italian.

(66) CONTENT ASSIGNMENT (Italian nouns)

Terminal content assignment	Phrasal content assignment	Examples
<b>x</b>	<b>✓</b>	<i>erba</i> / <i>*o</i> ‘grass’ (58)
<b>✓</b>	<b>✓</b>	<i>velo</i> / <i>a</i> ‘veil’ or ‘sail’ (64) <i>mattino</i> / <i>a</i> ‘morning’ (65)
<b>✓</b>	<b>x</b>	<i>albero</i> / <i>*a</i> ‘tree’ (61) <i>nemico</i> / <i>a</i> ‘(female) enemy’ (63) <i>strega</i> / <i>*o</i> ‘witch’ (60)

Now that my proposal for gender in Italian is fully fleshed out, we are finally in a position to review all the asymmetries discussed in §2 and show how they naturally follow from the privative system that I have put forward.

## 4 Deriving the Asymmetries

### 4.1 “MASC” as a semantic default

The first asymmetry between masculine and feminine gender concerns their semantic interpretation. As was discussed at length in §2.1, masculine gender is always semantically vacuous or gender-neutral, while the feminine is semantically contentful, at least on those animate nouns on which it can be interpreted (*contra* Percus 2011).

The account developed in the previous section offers a natural explanation. First, the systematic gender-neutrality of masculine nouns (aside from lexical entailments, as in *marito* ‘husband’) follows from the fact that there is no such thing as “masculine gender” in the syntactic representation in the first place. “Masculine gender” is simply a (misleading) label for the PF realisation of bare number features on a noun in which [FEM] has never



been introduced. As for feminine gender, there are two interpretive possibilities: in some cases it is not interpreted (cf. *erba* ‘grass’ in 58), and in other cases it is (cf. in *nemica* ‘female enemy’ in 63). Its dual behaviour also falls out naturally from the present model. If the categoriser  $n^\circ_{[FEM]}$  is included in a structure that is matched with atomic content at LF, feminine gender will remain uninterpreted, because meaning assignment to a complex phrase is mutually exclusive with meaning assignment to its component parts. In *erba*, for example, the content of  $n^\circ_{[FEM]}$  is “overridden” by the content assigned to the entire phrase, as in (58). Alternatively,  $n^\circ_{[FEM]}$  is not included in the phrase targeted for content assignment, and both the root and the categoriser are matched with content separately, as in (63). The categoriser will be assigned the meaning *FEM* and, as long as the root denotes animate individuals, it will be interpreted as restricting its denotation to female individuals only. These three interpretive possibilities are summarised schematically in (67), where boxes indicate the targets of content assignment.

- (67) a. [ [  $\sqrt{ROOT}$  ] Num $^\circ$  ] (e.g. *nemico* ‘enemy’, *albero* ‘tree’)  
 → “Masculine” morphology  
 → Gender-neutral interpretation: there is no gender
- b. [ [ [  $\sqrt{ROOT}$  ]  $n^\circ_{[FEM]}$  ] Num $^\circ$  ] (e.g. *erba* ‘grass’, *persona* ‘person’)  
 → Feminine morphology  
 → Gender-neutral interpretation: phrasal content assignment to *nP* overrides the assignment of *FEM* to  $n^\circ_{[FEM]}$
- c. [ [ [  $\sqrt{ROOT}$  ] ]  $n^\circ_{[FEM]}$  ] Num $^\circ$  ] (e.g. *nemica* ‘female enemy’)  
 → Feminine morphology  
 → Feminine interpretation: the content *FEM* is assigned to  $n^\circ_{[FEM]}$

In conclusion, the privative system laid out in §3 derives both the fact that masculine gender is never interpreted, and the fact that feminine gender may or may not be interpreted depending on the root that it combines with.

## 4.2 Root allomorphy

The second asymmetry between masculine and feminine nouns, discussed in §2.2, concerns the availability of context-sensitive morphophonological processes targeting the root. In particular, both root allomorphy and morphophonological readjustment rules conditioned by the presence of plural number on Num $^\circ$  are only attested on masculine nouns.

In the present model, feminine nouns are structurally more complex than masculine nouns, because they include an additional projection that crucially intervenes between the root and NumP. The attested and unattested patterns follow naturally as soon as *nP* is assumed to create a barrier for the purposes of allomorphy, preventing morphological operations targeting the root from accessing information on Num $^\circ$ , as shown in (68).

- (68) [ [ [  $\sqrt{ROOT}$  ]  $n^\circ_{[FEM]}$  ] *nP* ] Num $^\circ$  ]<sub>NumP</sub>

The remainder of this section will develop a technical implementation of (68). For the purposes of brevity, I will focus on the cases of root allomorphy, although the similar considerations can be extended to readjustment rules. Following the DM literature (cf. Bobaljik 2000, 2012, Embick 2010, 2012, Bonet and Harbour 2012, Moskal 2015), I model contextual allomorphy in terms of the application of Vocabulary Insertion rules at PF.

Namely, allomorphy is the result of competition between context-sensitive VI rules (69b), and context-free default VI rules (69c), governed by Kiparsky’s (1973) *Elsewhere Condition*, according to which more highly specified VI rules always win out.

- (69)
- a. *uom-o* – *uomin-i*  
man-MS    man-MPL  
‘man – men’
  - b.  $\sqrt{UOM} \longleftrightarrow /w\text{ɔ}min/ \ / \ [ \ \_\_\_ \text{Num}^\circ_{[PL]} ]$
  - c.  $\sqrt{UOM} \longleftrightarrow /w\text{ɔ}m/$  elsewhere

Four crucial and well-established conditions on the mechanism of exponence are summarised in (70). First, (70a) ensures that VI proceeds cyclically “from the inside out” (Halle and Marantz 1993, Bobaljik 2000, Embick 2012), so that the bottom of the syntactic tree is spelled out earlier than the top. Second, (70b) states that the spellout procedure involves “rewriting” the representation: VI replaces morphosyntactic features with a matching phonological entry. Finally, (70c) and (70d) ensure that context-sensitive VI rules cannot access the entire syntactic representation, but can only see within a local domain, defined both by linear adjacency at PF and by cyclic nodes in the syntax (cf. Embick 2010, 2012).

- (70)
- a. CYCLICITY:  
‘The interpretive procedure (*vocabulary insertion*) proceeds root-outwards.’
  - b. REWRITING:  
‘As morphosyntactic features are *expressed* by vocabulary items, these features are *used up* and no longer a part of the representation.’  
(Bobaljik 2000:47)
  - c. LOCALITY (linear):  
‘Contextual allomorphy requires concatenation (linear adjacency).’
  - d. LOCALITY (syntactic):  
‘Two nodes can see each other for allomorphic purposes only when they are both active in the same cycle.’  
(Embick 2012:25–26)

Following Embick (2010), Borer (2013b), and Moskal (2015), the locality condition in (70d) can be implemented in phase-theoretic terms, so that the cycles for the application of VI are defined by the inventory of phase heads, which crucially includes the category-defining  $n^\circ$ . For the purposes of this discussion, I will adopt the Cyclic Linearization model (Fox and Pesetsky 2003, 2005a,b, Ko 2014), according to which the entire phrase headed by a phase head is transferred, and the syntactic effects of Chomsky’s (2000, 2001) Phase Impenetrability Condition are simply derived from the monotonic build-up of information at the interfaces. Accordingly, as soon as a phase head  $X^\circ$  projects a maximal XP, the whole phrase is transferred to PF for spellout. The relevant VI rules will only have access to the information available at this stage of the derivation: namely, the morphosyntactic features on  $X^\circ$ , as well as those inside  $X^\circ$ ’s complement, to the exclusion of those that have already been rewritten into bare phonological material by previous applications of spellout. In the case at hand, when the categoriser  $n^\circ_{[FEM]}$  merges with a root and projects, the resulting  $n_{[FEM]}P$  is sent to PF. Following the discussion in §3.1, the head  $n^\circ_{[FEM]}$  can only be realised after it has undergone postsyntactic fusion with the head  $\text{Num}^\circ$ . Crucially,  $\text{Num}^\circ$  has not yet been merged at this derivational stage, so that only the root can be targeted by VI, and its spellout will perforce be indifferent

to the featural makeup of Num<sup>o</sup>. This derives the non-attestation of root allomorphy conditioned by the plural in feminine nouns. The same reasoning applies to masculine nouns. In the absence of  $n_{[FEM]}P$ , regardless of the identity of the next highest phase head, the root will inevitably be spelled out once Num<sup>o</sup> has already been merged. As a consequence, the feature [PL] on Num<sup>o</sup> will be accessible to the VI rules targeting the root.

One last observation is necessary to complete the picture. I have argued that the categoriser  $n_{[FEM]}$  defines a domain for the application of rules of exponence, so that all the syntactic features introduced above  $n_{[FEM]}P$  cannot affect the exponence of the root<sup>9</sup>. Its impermeability, however, is only unidirectional, because the specific form taken by Num<sup>o</sup>'s exponent can be sensitive to the root *even* when  $n_{[FEM]}P$  intervenes. As was discussed in §3.1, alongside the default gender-number portmanteaus (cf. 44), there are many root-dependent exponents. Some examples are shown in (71): the default exponent *-o* for singular Num<sup>o</sup> is overridden by *-a* in the context of the root  $\sqrt{POET}$  in (71a), and the default exponents *-a/-e* for feminine Num<sup>o</sup> are overridden by *-o/-i* in the context of the root  $\sqrt{MAN}$  in (71b), as is captured by the VI rules in (72). Crucially, the rules in (72b,c) seem to be able to “see past” the  $n_{[FEM]}P$  projection.

(71) a. *poet-a* – *poet-i*  
poet-MS poet-MPL

b. *man-o* – *man-i*  
hand-FS hand-FPL

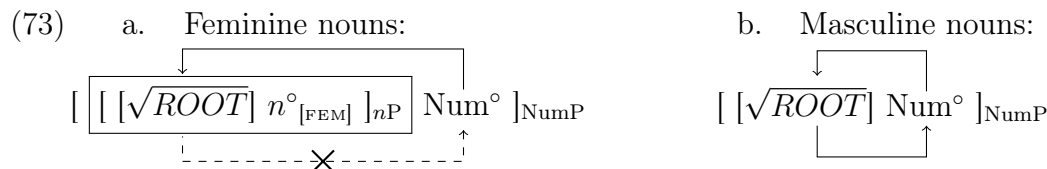
(72) a. [S]  $\longleftrightarrow$  /a/ / [  $\sqrt{POET}$  \_\_\_\_ ]<sub>NumP</sub>  
b. [FEM, S]  $\longleftrightarrow$  /o/ / [  $\sqrt{MAN}$  \_\_\_\_ ]<sub>NumP</sub>  
c. [FEM, PL]  $\longleftrightarrow$  /i/ / [  $\sqrt{MAN}$  \_\_\_\_ ]<sub>NumP</sub>

In the current model, the unidirectional impermeability of  $n_{[FEM]}P$  can receive a natural implementation as follows. At the point in the derivation when  $n_{[FEM]}P$  is projected, the root is immediately spelled out and its exponent fixed in a way that is insensitive to the future featural makeup of Num<sup>o</sup>. NumP is then projected and sent to spellout, where the heads  $n_{[FEM]}^o$  and Num<sup>o</sup> undergo fusion and are targeted by VI, as was discussed in §3.1. At this derivational stage, the VI rules for  $n+$ Num<sup>o</sup> *can* be sensitive to the phonological identity of the root. First, the root and  $n+$ Num<sup>o</sup> are linearly adjacent, thereby abiding by the linear locality condition in (70c). Second, the syntactic locality condition in (70d) is also obeyed: when  $n+$ Num<sup>o</sup> is spelled out, anything lower in the structure is also available for the VI rules to see, with the exception of morphosyntactic features that have already been rewritten by previous cycles of spellout and have become inaccessible, as per (70b). Crucially, the phonological identity of the root is not one such feature, and remains therefore accessible, following Bobaljik’s (2000) observation that inwards-sensitive allomorphy is only conditioned by morphophonological (diacritic) features, and outwards-sensitive allomorphy by morphosyntactic features.

To summarise, I have suggested that the attested and unattested patterns of context-sensitivity for morphological operations targeting the root offer strong support for the hypothesis that feminine nouns include more syntactic structure than masculine nouns.

<sup>9</sup>In this respect, my proposal follows closely Borer (2013b), and is stricter than Embick (2010) and Moskal (2015), where extensions of locality domains across null category-defining heads are permitted. However, Embick’s and Moskal’s proposals differ from mine in another crucial respect: they both assume that the categorisers  $v^o$ ,  $n^o$ , and  $a^o$  are *always* present. It is plausible that their cases of “domain extension” across a null categoriser can in fact fit within my stricter model, if those purportedly permeable covert categorisers are not syntactically present at all, in favour of contextual categorisation.

In particular, I have suggested that when the projection  $n_{[FEM]}P$  intervenes between the root and NumP, it creates a barrier for allomorphy. As shown in (73a), this barrier is impermeable only in one direction: spellout rules targeting the root cannot see Num<sup>o</sup>, but those targeting the latter can be sensitive to the root. As for masculine nouns, the wholesale absence of a categoriser projection results in complete “transparency” for the purposes of morphological operations in both directions, as shown in (73b) shows.



### 4.3 “MASC” as a morphological default

In §2.3, we saw that a further asymmetry between masculine and feminine nouns emerges in the context of what I referred to as *noncanonical nominals*, that is, DPs headed by quoted linguistic material and nonverbal material, such as noises, gestures, and facial expressions (cf. 21-22). In all such cases, feminine gender is systematically unattested. Viewed from a different perspective, masculine gender appears as a default whenever the gender of the DP cannot be determined by semantic considerations, nor by idiosyncratic “root selection”. This generalisation follows naturally from my privative system, where there are only two possible scenarios that motivate the projection of  $n_{[FEM]}P$  inside a nominal. First,  $n_{[FEM]}P$  may be necessary because of its semantic contribution, to restrict the denotation of an animate noun to female individuals only. Second,  $n_{[FEM]}P$  may be necessary when it is “selected” by the relevant root. Following on from the discussion in §3.2, this reduces to the fact that a well-defined and listed subset of roots are subject to the MBF at the PF interface. Neither of these two cases, however, can apply to *noncanonical nominals*, thereby deriving the fact that they never contain  $n_{[FEM]}P$  and systematically appear as “default masculine”. First, none of them denotes animate referents, so that the presence of  $n_{[FEM]}P$  could never be motivated by LF considerations alone. Second, noncanonical nominals by definition never contain listed roots from the lexicon, but are rather the result of the productive process of metalinguistic reference (cf. *John’s ‘I hate you!’*), and the creation of iconic roots (cf. *John’s [cough]*). Because they are not listed, noncanonical nominals cannot possibly be part of that well-defined set of bound nouns that the MBF applies to, and the presence of  $n_{[FEM]}P$  cannot be motivated by PF considerations, either. Finally,  $n_{[FEM]}P$  is never necessary for purely syntactic reasons, because roots can always be categorised contextually (Borer 2013b, 2014).

To sum up, in the system I have developed there is no reason to possibly motivate the projection of  $n_{[FEM]}P$  inside noncanonical nominals. As a consequence,  $n_{[FEM]}P$  will be barred by economy considerations and noncanonical nominals will systematically appear without it, resulting in default “masculine” morphology.

### 4.4 Gender coercion

As was discussed in §2.4, Italian nouns can be divided into those that have both “masculine” and feminine counterparts, such as *nemico/a* ‘(female) enemy’, and those that instead typically allow only one gender value, such as *medico* ‘doctor’ (M) and *spia* ‘spy’ (F). As for the latter category, I pointed out that coercion into the opposite gender value

is possible, given a suitable context and register, and as long as there is a detectable semantic effect. Crucially, all and only the masculine nouns seem to in principle allow coercion, a fact which I ultimately reduced to the generalisation in (28), repeated below.

- (74) The set of nouns that *require* a specific gender value, fixed arbitrarily on a root-by-root basis, only contains feminine nouns.

In the privative model I have laid out, (74) should come as no surprise. In §3.2, I proposed that strictly feminine nouns are those that are subject to the MBF, and therefore require the projection of  $n_{[\text{FEM}]}P$  for PF convergence. As the only way to “turn” a feminine noun into a masculine one would be to remove the  $n_{[\text{FEM}]}P$  layer altogether, it follows that feminine-to-masculine coercion should be impossible. If  $n_{[\text{FEM}]}P$  failed to be projected, the relevant roots would violate the MBF and result in morphophonological ill-formedness. There are no similar morphophonological restrictions that apply to strictly masculine nouns at PF. Consequently, nothing beyond derivational economy and independent semantic considerations could prevent  $n_{[\text{FEM}]}^{\circ}$  from merging with an otherwise masculine noun, thereby resulting in masculine-to-feminine coercion.

To summarise, the generalisation in (74) follows from a simple architectural property of my privative system. A root’s requirement for feminine gender has been formalised as the requirement that  $n_{[\text{FEM}]}P$  should project in order to guarantee well-formedness at the PF interface. For roots subject to the MBF, projecting  $n_{[\text{FEM}]}P$  is necessary for convergence. On the other hand, “masculine gender” is nothing other than absence of  $n_{[\text{FEM}]}P$  from the structure, so that no parallel requirement can be formulated. It follows that the presence of  $n_{[\text{FEM}]}P$  is always at least in principle possible, as long as it can be semantically interpreted, and so is masculine-to-feminine coercion.

#### 4.4.1 The Fishy Issue of *Pesce*

There is one important issue that I need to discuss before proceeding. I have claimed so far that all (animate) masculine nouns in Italian can be “coerced” into their feminine variant whenever the referent is female. In demonstrating this pattern, however, I have deliberately set aside an important subset of masculine nouns, which all seem to end with the non-default suffix *-e/i*. As (75) shows, the generalisation does not seem to extend to them: a hypothetical feminine version, whether with the unmarked feminine ending *-a/e* or with the same marked ending *-e/i* as the masculine, is sharply ungrammatical.

- (75) a. *un pesc-e, un serpent-e, un elephant-e, ...*  
 a.MS fish-MS, a.MS snake-MS, a.MS elephant-MS  
 ‘a fish, a snake, an elephant, ...’  
 b. *\*un-a pesci-a, \*un-a serpent-a, \*un-a elephant-a, ...*  
 a-FS fish-FS a-FS snake-FS a-FS elephant-FS  
 c. *\*un-a pesci-e, \*un-a serpent-e, \*un-a elephant-e, ...*  
 a-FS fish-FS a-FS snake-FS a-FS elephant-FS

There are two pieces of this puzzle that deserve particular attention, and the solution I develop in the following paragraphs crucially relies on these. First of all, note that “coercion” into the feminine gender becomes once again possible as soon as further morphological material intervenes between the root and the gender-number portmanteau, as shown below with a sample of diminutives and augmentatives.

- (76)  *pesc-ett-a, pesci-ol-in-a, serpent-in-a, elephant-on-a, ...*  
 fish-AFF-FS fish-AFF-DIM-FS snake-DIM-FS elephant-AUG-FS  
 ‘a (cute female) fishie, a (little female) snake, a (big female) elephant, ...’

Second, note that this behaviour is crucially tied to the presence of a non-default gender-number portmanteau  $-e/i$  for the masculine, as opposed to the unmarked  $-o/i$ . In the theory I have developed above, all “theme vowels” realise the features [SG/PL] and optionally [FEM] on the head Num<sup>o</sup> via Vocabulary Insertion at PF. Non-default theme vowel suffixes are the result of root-conditioned allomorphy of the type exemplified in (77) for the noun *pesce* ‘fish’.

- (77) [SG] →  $-e / [ \sqrt{PESC} \_ ]$

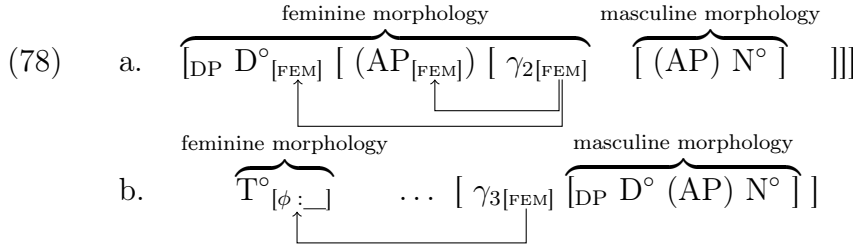
With this in place, I suggest that the ungrammaticality of *\*una pescia* and similar noun phrases results from a form of lethal ambiguity at the level of Vocabulary Insertion at PF. More specifically, when the root  $\sqrt{PESC}$  combines with the categoriser  $n_{[FEM]}$ , there are two possibilities for the realisation of the features [FEM, SG/PL] on the head Num<sup>o</sup>.

One option is to apply the elsewhere VI rule for the feature set [FEM, SG/PL] on Num<sup>o</sup>, which results in the default feminine endings  $-a/e$ . This would generate the unattested noun *\*una pescia* as the feminine variant of *un pesce*. A second option, on the other hand, is to only spell out the number feature [SG/PL] on Num<sup>o</sup>, by the Subset Principle, so as to then apply the root-conditioned VI rule in (77), which is more specific than the elsewhere rule. This would result in the equally unattested feminine noun *\*una pesce*. Crucially, both derivational possibilities are equally ranked at the PF interface: by the Elsewhere Condition, the second should win out over the former, because it involves the application of a more specific VI rule. On the other hand, the former should win out over the latter by the Subset Principle, because it involves the overt spellout of the larger number of features. My contention is that such an ambiguity results in a PF crash, thereby explaining the ungrammaticality of both *\*una pescia* and *\*una pesce*.

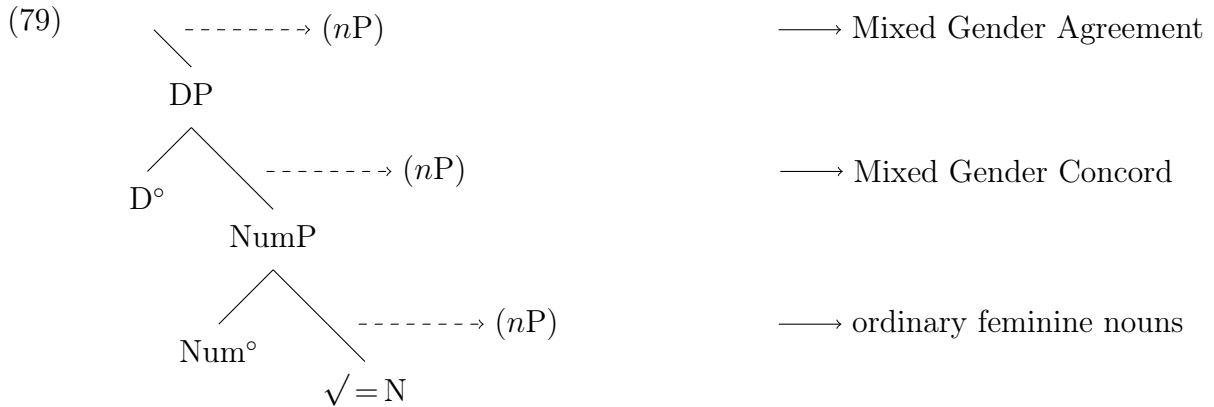
To summarise, I have suggested that the feature set [FEM, SG/PL] cannot be realised at all when it is in a local configuration with the root  $\sqrt{PESC}$ , because there are two competing spellout alternatives and no appropriate PF algorithm for deciding which rule to apply. However, as soon as this local configuration is broken, for example by an intervening diminutive or augmentative morpheme, any VI rule like that in (77) becomes unavailable, thereby allowing for the default VI rule to apply unproblematically. This explains the grammaticality of nouns like *una pescetta* and *una pesciolina*, as exemplified above.

#### 4.5 Mixed Gender Concord and Agreement

In §2.5 and §2.6, I argued that a further asymmetry between masculine and feminine gender resides in the existence of “feminisation” and the absence of any hypothetical parallel “masculisation”. As summarised in (78a) (cf. 31), a masculine noun with low adjectives in the masculine gender may cooccur with feminine gender on higher adjectives and determiners. As summarised in (78b) (cf. 34), an entirely masculine DP may also control feminine agreement on the verb. Both phenomena are only possible in some registers, when a “strictly masculine” noun has a female intended referent. The mirror image phenomena are entirely unattested.



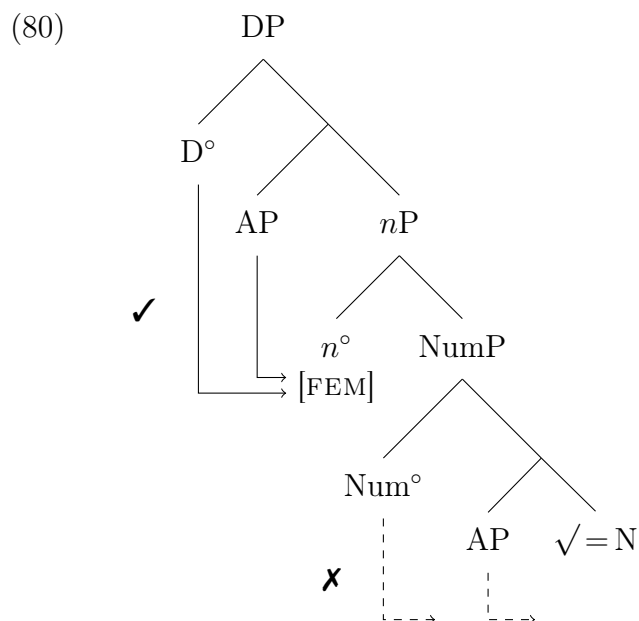
In the system I have proposed, both the attested and unattested patterns follow naturally. Assume, following Fuchs and van der Wal’s (2018) analysis of Bantu “noun class” markers, that the categoriser  $n^\circ$  can in principle project at any level of the nominal extended projection, as indicated in (79). From a syntactic point of view, interleaving the categoriser with the nominal functional projections has no consequence, insofar as  $n^\circ$  will simply categorise its complement as nominal, possibly vacuously. On the other hand, this may not be semantically vacuous: in the case at hand, the Italian categoriser  $n^\circ_{[FEM]}$  denotes a function that restricts the noun’s denotation to female individuals.



With this background, both patterns of “feminisation” in (78) can be naturally derived. When the  $n_{[FEM]}P$  project immediately above the root, the result will be an ordinary noun phrase with feminine morphology throughout. In this case only, it may be possible for the categoriser’s semantic contribution to disappear, as long as the  $n_{[FEM]}P$  as a whole is matched with atomic content at LF. Because  $n_{[FEM]}P$  is sufficiently small and does not exceed the threshold for phrasal content assignment (see fn. 7), the latter, if available, can override the meaning of the categoriser and result in “uninterpretable” gender. On the other hand, if  $n^\circ_{[FEM]}$  is merged any higher in the structure, it will be too far from the root to be targeted by noncompositional content assignment: it will unavoidably be assigned the content *FEM* and be interpreted as a semantic feminiser. This derives the non-attestation of semantically vacuous Mixed Gender Concord and Agreement.

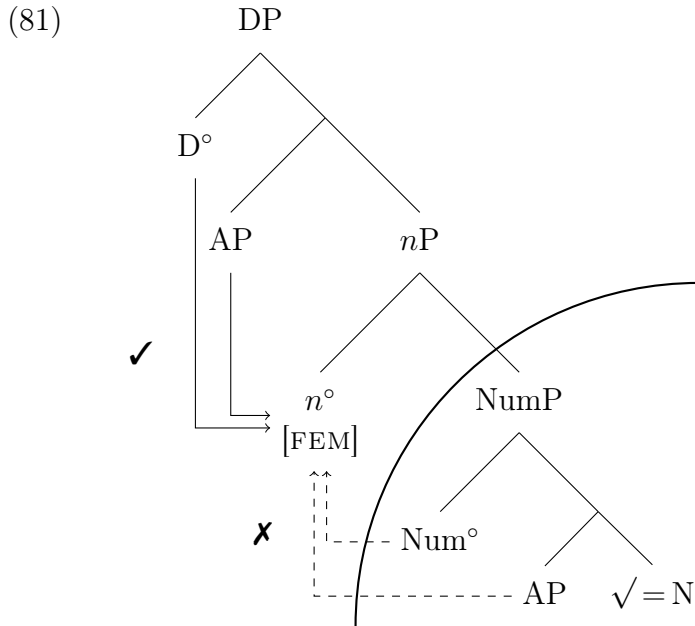
When  $n_{[FEM]}P$  projects in-between NumP and DP, the resulting pattern will be Mixed Gender Concord as described in §2.5. The lower part of the nominal extended projection, all the way up to NumP, will display “masculine” morphology. The higher part of the nominal spine, all the way down to  $n_{[FEM]}P$ , will display feminine morphology instead. There are at least two possible technical implementations for the observed split in concord. One strategy is to rely on the strict directionality of the operation Agree, which can only be downwards (Chomsky 2000, *et seq.*, Polinsky and Preminger 2019, *contra* Bjorkman and Zeijlstra 2014 *et seq.*). Under this approach, summarised in (80), every object undergoing concord that is merged below  $n^\circ_{[FEM]}$  will only be able to probe into its c-command domain and never find the feature  $[FEM]$  to agree with, thereby defaulting

as “masculine”. On the other hand, any object undergoing concord that is merged above  $n^{\circ}_{[FEM]}$  will be able to successfully agree with  $[FEM]$  and thereby surface with feminine morphology.



An alternative implementation for the pattern of split concord relies on phase theory, as shown in (81). All we need is to assume that  $\text{Num}^{\circ}$  is a phase head, following Citko (2014). Following Fox & Pesetsky’s (2003, 2005a, 2005b) Cyclic Linearization model of phases, which I am adopting in this paper (see §4.2 for details), the NumP phase will be sent to PF for spellout as soon as it is projected. At this derivational stage,  $n^{\circ}_{[FEM]}$  has not yet been introduced in the structure, so that every object capable of undergoing concord that is contained inside NumP will surface with default “masculine” morphology. Since buildup of interface information is strictly cumulative, merging  $n^{\circ}_{[FEM]}$  at a later derivational stage will be too late to alter the morphological realisation of the material inside NumP. Syntactic objects that are merged further up, however, will be able to agree with  $n^{\circ}_{[FEM]}$  and display feminine morphology.





The same considerations can be applied *mutatis mutandis* to Mixed Gender Agreement, which arises when a  $n_{[FEM]}P$  is projected immediately above the DP layer.

Because there is no such thing as a masculine counterpart of the head  $n^\circ_{[FEM]}$  or the feature [FEM] in my approach, it follows immediately that we should not expect cases of Mixed Gender Concord/Agreement in which feminine morphology appears on the hierarchically lower elements and masculine morphology on the higher ones. The privative model that I have proposed readily accounts for the nonattestation of “masculisation”.

#### 4.6 Double plurals & Gender switch

As was discussed in section §2.7, some masculine nouns have two alternative plurals forms, one in the masculine gender, and one in the feminine. In some cases, as in (82a), the masculine plural preserves the meaning of the singular, while the feminine plural form introduces a new idiosyncratic meaning. In others, as in (82b), the singular form is ambiguous, and its two meanings part ways in the plural. The former pattern was referred to above as *Idiosyncratic Double Plurals*, the latter as *Specialised Double Plurals*.

- (82)
- a. *fus-o* – *fus-i* – *fus-a*  
 spindle-MS spindle-MPL spindle-FPL  
 ‘spindle – spindles – (cat) purrs’
- b. *corn-o* – *corn-i* – *corn-a*  
 horn-MS horn-MPL horn-FPL  
 ‘horn (musical/anatomical) – horns (musical) – horns (anatomical)’

Let us consider how the present analysis derives these two patterns. If the feminine plural form is put aside, the root  $\sqrt{FUS}$  from (82a) seems to be able to form a completely ordinary masculine noun, where it is targeted as a syntactic terminal for the assignment of the content *SPINDLE*, as in (83a). To account for the feminine plural, all that needs to be added to the picture is the possibility of a noncompositional content, *PURR*, which can be matched with the entire feminine plural structure, as in (83b). The unattested feminine singular is ruled out because there is no noncompositional content that can be assigned to it, and a compositional reading is unavailable due to the feminine categoriser’s

animacy requirement. Under this analysis, the plural *fusa* is nothing other than a *plurale tantum* noun, akin to the English *glasses* ‘spectacles’ in relation to the ordinary count noun *glass* ‘drinking vessel’, as shown in (83c-d).

- (83) a.  $[\sqrt{FUS}] \dashrightarrow SPINDLE$   
 b.  $[[[\sqrt{FUS}] n_{[FEM]}] \text{Num}_{[PL]}] \dashrightarrow PURR$   
 c.  $[\sqrt{GLASS}] \dashrightarrow GLASS$   
 d.  $[[\sqrt{GLASS}] \text{Num}_{[PL]}] \dashrightarrow SPECTACLES$

A similar story, with a minor adjustment, can be extended to the root  $\sqrt{CORN}$  from (82b). In this case, the root terminal can be matched with two independent meanings, as indicated in (84a) and (84b), and as a result the singular form of the noun will be ambiguous. In addition, the former meaning can also be matched noncompositionally with the plural feminine structure as a whole, as in (84c). The upshot is that the masculine plural form will be unambiguous, because one of its two available readings is blocked by pragmatic competition with the alternative plural feminine.

- (84) a.  $[\sqrt{CORN}] \dashrightarrow HORN(ANAT)$   
 b.  $[\sqrt{CORN}] \dashrightarrow HORN(MUSIC)$   
 c.  $[[[\sqrt{CORN}] n_{[FEM]}] \text{Num}_{[PL]}] \dashrightarrow HORN(ANAT)$

Finally, consider a hypothetical scenario where a root terminal can be matched compositionally with a unique content, as was the case with *fuso*, but where that same content can also be matched noncompositionally with the corresponding plural feminine structure, as was the case with *HORN(ANAT)* in the noun *corno*. The result will be a noun with a unique unambiguous singular form in the masculine, and two alternative plurals that differ in gender but not in meaning. We also expect that in some cases there might be a certain degree of specialisation, with some subtle conceptual nuances distinguishing the two plurals in use. In other cases, one of the two plurals might be heavily dispreferred and confined to some marginal registers. Finally, as a limit case, there might be nouns where one of the two plurals entirely is “blocked” by the other and proscribed in current linguistic use. All of these predictions are met.

I have laid out the relevant examples in (85), along a cline from complete interchangeability through to complete blocking of one form by the other. The first case is exemplified by the noun *urlo* ‘scream’ in (85a), whose two alternative plurals have no difference in meaning whatsoever, but only differ in relative frequency. The second case is exemplified by *budello* ‘bowel’ in (85b): the masculine plural is mostly used in a figurative sense, and the much more common feminine plural is preferred if used in a literal sense. The third case is exemplified by *dito* ‘finger’ in (85c), whose masculine plural form is only attested in marginal registers or in jocular speech, and may even be described as utterly ungrammatical by some speakers. Finally, the limit case is exemplified by *uovo* ‘egg’ in (85d), whose masculine plural is entirely proscribed outside of jocular speech, in favour of the feminine alternative.

- (85)
- |    |                 |   |                    |   |                 |   |
|----|-----------------|---|--------------------|---|-----------------|---|
| a. | <i>url-o</i>    | – | <i>url-i</i>       | – | <i>url-a</i>    | ↓ |
|    | scream-MS       |   | scream-MPL         |   | scream-FPL      |   |
| b. | <i>budell-o</i> | – | <i>budell-i</i>    | – | <i>budell-a</i> |   |
|    | bowel-MS        |   | bowel-MPL          |   | bowel-FPL       |   |
| c. | <i>dit-o</i>    | – | (? <i>dit-i</i> )  | – | <i>dit-a</i>    |   |
|    | finger-MS       |   | finger-MPL         |   | finger-FPL      |   |
| d. | <i>uov-o</i>    | – | (? <i>*uov-i</i> ) | – | <i>uov-a</i>    |   |
|    | egg-MS          |   | egg-MPL            |   | egg-FPL         |   |

This final case on the cline in (85) meets the profile of those nouns that were described in §2.8 as undergoing “gender switch” from the masculine to the feminine in the plural. The LF interpretation rules in (86a-b) and (86c-d) summarise the proposal, exemplifying with the two nouns on the opposite ends of the continuum in (85): *urlo* and *uovo*, respectively. Extrasyntactic facts about usage and convention will regulate the relative frequency, conceptual specialisation, and acceptability of the two alternative plural forms.

- (86)
- |    |   |
|----|---|
| a. | $[ \sqrt{URL} ] \dashrightarrow SCREAM$                                     |
| b. | $[ [ [ \sqrt{URL} ] n_{[FEM]} ] \text{Num}_{[PL]} ] \dashrightarrow SCREAM$ |
| c. | $[ \sqrt{UOV} ] \dashrightarrow EGG$  |
| d. | $[ [ [ \sqrt{UOV} ] n_{[FEM]} ] \text{Num}_{[PL]} ] \dashrightarrow EGG$    |

Before concluding this section, we should finally account for the observation, discussed in §2.7 and §2.8 (cf. (38) and (40)), that all cases of Double Plurals and Gender Switch involve a noun that is obligatorily masculine in the singular but allows for feminine gender in the plural, while there are no mirror image cases of nouns that are obligatorily feminine in the singular but allow for masculine morphology in the plural. In the system that I have sketched, if a root is able to freely form a masculine noun, this will inevitably mean that it is not subject to the MBF. Nothing in principle will prevent it from combining with the categoriser  $n^\circ_{[FEM]}$ , as long as the output is semantically well-formed and not ruled out by economy considerations. Conversely, if a root forms a strictly feminine noun, this will mean that it must be subject to the MBF at PF. Consequently, it will not be possible to freely omit  $n_{[FEM]}P$  from the structure, insofar as the presence of the categoriser is crucially required to fulfil the MBF and guarantee morphophonological well-formedness. In other words,  $n^\circ_{[FEM]}$  may freely merge with roots that do not “select” for it, but cannot be omitted from roots that do “select” for it. This selectional asymmetry between masculine and feminine gender immediately derives the fact that Double Plurals and Gender Switch always involve a masculine singular form: their impossible mirror image patterns would involve a root that obeys the MBF in the feminine singular, but flouts it in the masculine plural, when  $n_{[FEM]}P$  is omitted.

## 5 Conclusion

The purpose of this paper has been to argue for a privative analysis of the gender system in Italian, revolving around the presence or absence of a category-defining head  $n^\circ_{[FEM]}$ . In terms of morphological marking, Italian appears to have a binary distinction between masculine and feminine gender. At closer inspection, however, the two gender “values” display a number of semantic, morphological, and syntactic asymmetries, which would

be unexpected under an model that makes use of binary gender features. Rather than stipulating that one feature, such as  $[-FEM]$  or  $[(+)MASC]$ , should be treated differently than the other, perhaps doubling as a default in some contexts, I suggest a much simpler approach. Feminine nouns are structurally more complex than masculine nouns, insofar as they include the categoriser projection  $n_{[FEM]P}$ . “Masculine” gender, on the other hand, should be reduced to the mere absence of that layer of structure.

More generally, this research points towards the possibility that many morphological systems that appear to require a binary opposition may translate into an entirely privative feature system in the syntax, as may be the case with English number (cf. Borer 2005a, *contra* Harbour 2011, 2014, *et seq.*). In the same way, apparently binary semantic systems can be reduced to privative syntactic representations by appealing to pragmatic competition between forms in order to derive the surface semantic behaviour, following up on Sauerland’s (2003) and Sauerland, Anderssen, and Yatsushiro’s (2005) seminal work on plurality.

The second aim of this paper has been to defend a view of syntactic gender as a system for categorising roots and complex structures as *nominal* (following Lowenstamm 2008, Acquaviva 2009, Kramer 2009, 2015, a.o.), a system which has been partly re-purposed for the expression of semantic gender. As I hope to have shown in §3.3, the purported difference between “interpretable” and “uninterpretable” gender should not be specially encoded in the syntax, *contra* Steriopolo and Wiltschko (2010). On the contrary, it is merely the emergent side effect of the way in which meaning can often be assigned noncompositionally to an entire phrase, overriding the content of its component parts.

Some loose ends, inevitably, remain. First of all, the picture cannot be entirely complete until it is brought together with an appropriate analysis of derivational morphemes like the diminutive, augmentative, affective, and pejorative suffixes, which I have largely set aside (cf. De Belder, Faust, and Lampitelli 2014, Savoia et al. 2017). Secondly, the way I have implemented selection of feminine gender via PF filtration remains a tentative suggestion. There may be other insightful approaches, equally compatible with the core claims of this paper, that still avoid the stipulation of selectional features on the roots themselves. Thirdly, I have only offered a toy DM analysis of the exponence of gender via the gender-number portmanteaus, largely disregarding the issue of inflectional class (Harris 1991, Alexiadou and Müller 2008, Armelin 2014, Kučerová 2019). A more insightful approach to the realisation of gender and number at PF awaits further research.

On a final note, I hope to have demonstrated how one can shed light into the nature of syntactic representations by looking at the entire organisation of a feature system: the way in which the relevant semantic, morphological, and syntactic phenomena hang together, and in particular the way in which the system deviates from the symmetry and uniformity that we might initially expect.

Pietro Baggio  
Queen Mary University of London  
p.baggio@qmul.ac.uk  
pietrobaggio.wordpress.com

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