

GENDER MARKEDNESS:
THE ANATOMY OF A COUNTER-EXAMPLE*

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1. INTRODUCTION – A PUZZLE

The morphological expression of gender on nouns displays a puzzling behaviour under ellipsis of nominal predicates. In some instances, it appears that gender can be ignored in the calculation of the identity/parallelism requirement: (1) from Brazilian Portuguese (BP) is well-formed, even though the corresponding overt nominal predicate would have a different final vowel than the antecedent noun. Put differently, (1a) does not assert: #*Marta é médico*, but rather: *Marta é médica*. We indicate the intended construal of the elided noun in square brackets after each example.

- (1) a. O Pedro é médic-o e a Marta também é. [médic-a] BP
the Pedro is doctor-MASC and the Marta also is doctor-FEM
- b. ?A Marta é médic-a e o Pedro também é. [médic-o]
the Marta is doctor-FEM and the Pedro also is doctor-MASC

‘Pedro/Marta is a doctor, and Marta/Pedro is too.’

With a different choice of nouns, a sharp asymmetry emerges. An overt masculine antecedent can license ellipsis of the corresponding feminine noun, but the reverse is impossible. The sentence in (2b) asserts (or presupposes) that Paulo is female, and is thus infelicitous.

- (2) a. ? O Paulo é ator e a Fernanda também é. [atr-iz] BP
the Paulo is actor and the Fernanda also is actr-ess
- b. # A Fernanda é atr-iz e o Paulo também é. [ator]
the Fernanda is actr-ess and the Paulo also is actor

‘Paulo/Fernanda is an actor/actress and Fernanda/Paulo is too.’

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With still a different choice of nouns, the asymmetry disappears, but in this case neither form of the noun licenses ellipsis of the opposite gender.

- (3) a. # O Zé vai ser ti-o e a Lu também vai ser. [ti-a]
the Zé will be uncle-MASC and the Lu also will be aunt-FEM
- b. # A Lu vai ser ti-a e o Zé também vai ser. [ti-o]
the Lu will be aunt-FEM and the Zé also will be uncle-MASC

‘Zé/Lu will become an uncle/aunt and Lu/Zé will too.’

The contrast between the patterns in (2) and (3) is evident in other languages as well, including English, as the difference in (4) and (5) shows.¹

- (4) a. John is a waiter, and Mary is ... too. [waitress]
b. # Mary is a waitress, and John is ... too. [waiter]
- (5) a. # Andrew is a prince, and Anne is ... too. [princess]
b. # Anne is a princess, and Andrew is ... too. [prince]

Theoretical tools are readily available for understanding any one of the pairs in (1)-(3). The pair in (1) suggests that gender is irrelevant for the concerns of identity/parallelism in ellipsis; this would be consistent with a treatment of gender as an inflectional feature, since inflection is systematically ignored in the resolution of ellipsis identity (see, among others, Lasnik 1995, Nunes and Zocca 2005, Sauerland 2008, and references therein). On the other hand, the pair in (2) suggests that gender is relevant to the parallelism constraint in ellipsis resolution, but in an asymmetric manner: only overt feminine marking needs to be matched in the elided conjunct. This is readily expressible in terms of markedness and underspecification: if feminine is the marked gender on predicates, it must be copied into the elided conjunct, and yields a gender clash with a masculine subject. Masculine, being unmarked, yields no gender clash (in unification terms, it unifies with a subject of either gender). Finally, the pair in (3) suggests, in distinction to (1)-(2), that both genders matter for ellipsis, and that parallelism does not ignore either gender. Each solution accounts for exactly one pair, and yields the wrong predictions for the other pairs. The challenge lies in explaining all three patterns within an internally consistent set of assumptions, and, to the extent possible, predicting the behaviour of a given noun in a given language from independent characteristics.

It is to this puzzle that we turn our attention in this paper. We argue in effect that all three analyses are correct, but apply to different classes of nouns, and we offer a partial basis for the classification of the nouns that will predict their behaviour in ellipsis. We suggest that the difference between (1)-(2) lies in the distinction between inflectional and derivational manifestations of gender, a distinction which is for many (but not all) languages independently deducible from the morphological patterns independent of ellipsis. This clearly cannot be the whole story, though, in light of nouns such as those in (3) and (5). These nouns have the same

¹ We put aside here the issues surrounding gender-neutral usage for professional designations (such as the trend to avoid forms such as *waitress*, *actress* altogether). We believe that the contrastive judgments we report reflect the intuitions of those speakers who control a register in which, for example, #*Mary is a waiter* is infelicitous. Although there is some variation by speaker and by lexical item, the infelicity of the corresponding sentences outside of ellipsis contexts holds in the other languages considered as well, if anything, more strongly than in English (see below).

morphological characteristics as nouns from the other groups, yet fail to pattern with either of them. We report below on a preliminary survey of six languages, and note that there is a semantic regularity to the pattern of exceptions. Nouns denoting ranks of nobility and (some) kinship terms are correlated in all six languages with the behaviour in (3), regardless of their morphology. We thus suggest a semantic account for these classes of nouns. Specifically, we conclude:

- (i) that the morphology does consist (for these languages) of a simple two-way opposition, with marked feminine opposed to unmarked masculine,²
- (ii) that in the case of derivational affixation, the morphologically unmarked forms are indeed semantically unmarked, but
- (iii) that certain noun stems may nevertheless carry MALE/MASCULINE as a part of their lexical semantics.

Taken together, we thus recognize a possible three-way contrast in the semantics (male vs. female vs. unspecified) even where the morphology and morphosyntax draw only a two-way distinction (female vs. unspecified). This, combined with the difference between derivational and inflectional expression of gender, provides an account of the varying patterns illustrated in (1)-(3) and of (much of) their distribution in the languages surveyed here.

We begin the paper with a discussion of the examples that show an apparent markedness asymmetry, as in (2), situating our discussion in the general approach to markedness famously advocated by Jakobson (1984[1932]). In section 3 we turn to the nobility and kinship noun pattern in (3). We return to the *médico/a* type alternation in (1) in section 4. This type is, within our survey, only attested in Brazilian Portuguese. In addition to providing an account of this behaviour, we offer some rather tentative suggestions in that section as to why it is absent from the other languages considered.

2. ELLIPSIS AND MARKEDNESS: THE *ACTRESS* CLASS

The pairs in (2) and (4) showed an asymmetry regarding ellipsis. A masculine predicate noun may serve as the antecedent for an elided form with a feminine subject, but the reverse is not possible. Further examples from Russian and German are given in (6)-(7). We will refer to noun pairs with this behaviour as the *actress* class.

- (6) a. Ivan moskvič i Marina tozhe. [moskvička]
 Ivan Muscovite.MASC and Marina too Muscovite-FEM
- b. # Marina moskvič-ka i Ivan tozhe. [moskvič]
 Marina Muscovite-FEM and Ivan too Muscovite.MASC
- ‘Ivan/Marina is a Muscovite and Marina/Ivan is too.’

² For ease of exposition we ignore the neuter gender in the languages that have it. Consideration of neuter adds nothing to the points we wish to make for the languages we are discussing; however, in some languages, neuter is used as the unmarked gender, for example, in resolution rules for mixed gender systems (Corbett 1991:298 cites Icelandic as one such language).

- (7) a. Mein Onkel ist (ein) Österreicher, und meine Tante ... auch. [Österreicher-in]
 my uncle is (an) Austrian.MASC and my aunt ... too Austrian-FEM
- b. # Meine Tante ist (eine) Österreicher-in, und mein Onkel ... auch. [Österreicher]
 My aunt is (an) Austrian-FEM, and my uncle ... too Austrian.MASC
- ‘My uncle/aunt is (an) Austrian and my aunt/uncle is too.’

These examples are typical of the behaviour of nouns in the languages we surveyed that stand in a morphological unmarked (masculine) vs. marked (feminine) opposition, i.e., where the feminine is derived from the masculine by the addition of a suffix. Such nouns include demonyms (although not in English), names for professions, general descriptive terms for humans (e.g., German: *Held/Held-in* ‘hero/hero-ine’, *Idiot/Idiot-in* ‘idiot’, *Pessimist/Pessimist-in* ‘pessimist’, etc.) as well as many animal names (see the appendix). We suggest that this pattern is easily understood as the product of two assumptions: (i) an identity requirement on ellipsis, and (ii) a markedness asymmetry in gender. In order to be able to discuss the contrasting behaviour with other noun classes below, we will spend some time here spelling out some of our assumptions and the analysis explicitly.

As noted, we assume that ellipsis requires identity between the elided material (noun) and the antecedent. It is immaterial to the present account whether ellipsis is copying or deletion, so long as identity is met. (We will refine this below, but not in ways that affect the points made in this discussion). The (b.) examples in (2), (4), (6), (7) are thus all excluded as gender clashes. Identity forces the elided predicate nouns to be construed as feminine, which clashes with their subjects.

Why then are the corresponding (a.) examples acceptable? To understand this requires a particular view of underspecification of gender, and we turn now to a brief aside to review the classic presentation of this perspective.

2.1 Jakobson’s *donkey-sentences* (a review)

In a now-famous discussion, Roman Jakobson (1984[1932]:2-3) observes that a morphological markedness asymmetry in masculine-feminine pairs is paralleled by a semantic asymmetry. Specifically, where the feminine form is morphologically marked (with respect to the masculine), the use of the feminine form indicates female sex, but the use of the masculine form is, at least in certain instances, neutral as to sex. Thus, in regarding an animal of unknown sex, a speaker of Russian may ask (8a) with the masculine form, and receive an affirmative answer (as in (8b)), along with the further specification that the animal is in fact female, without contradiction.

- (8) a. Èto osel ?
 it donkey.MASC
 ‘Is that a donkey?’
- b. Da, no voobshche-to èto osl-ica.
 Yes but in.general-PRT it donkey-FEM
 ‘Yes, actually it is a jenny (female donkey).’

On the other hand, if the question is posed with the feminine form (9a), then an affirmative answer with the opposite gender is contradictory (9b); only a negative answer is felicitous if the animal is in fact male (9c).

- (9) a. Èto osl-ica ?
it donkey-FEM
'Is that a (female) donkey?'
- b. # Da, no voobshche-to èto osel.
Yes but in.general-PRT it donkey.MASC
'Yes, actually it is a (male) donkey.'
- c. Net, (èto) osel.
No it donkey.MASC
'No, it is a (male) donkey.'

Examples are readily replicated for various other (Indo-European) languages, as Jakobson noted, including English, as shown in (10), and German in (11).³

- (10) a. Is that a lion? Yes, (more precisely) it's a lioness.
b. Is that a lioness? # Yes, (more precisely) it's a lion. / No, it's a lion.
- (11) a. Ist das ein Löwe? Ja, das ist ein-e Löw-in. Ger.
is that a-MASC lion.MASC Yes, that is a-FEM lion-FEM
b. Ist das ein-e Löw-in? # Ja, das ist ein Löwe. / Nein, das ist ein Löwe.
is that a-FEM lion-FEM Yes, that is a.M. lion.M. No, that is a.M. lion.M.

Jakobson concluded from these examples that the morphologically unmarked form is in fact also unmarked semantically. In other words, while the form with a feminine suffix marks an assertion of female sex, the form with no morphological mark (the masculine, grammatically) makes no assertion about sex. In particular, it does not assert "not female" (i.e., male). Jakobson extends this view to markedness in general:

"if Category I announces the existence of A, then Category II does not announce the existence of A, i.e. it does not state whether A is present or not. The general meaning of the unmarked Category II, as compared to the marked Category I, is restricted to the lack of 'A-signalization'" (page 1)

The morpho-semantic markedness asymmetry that Jakobson discussed is revealed by other diagnostics as well. A well-known example (at least in the languages discussed here) is that feminine plural forms can only be used to refer to a group of females, whereas the masculine plural can be used for mixed groups, as well as all-male groups (cf. Greenberg 1966:30, Corbett 1991:290-299; see especially the latter for discussion of languages which deviate from this pattern).

In our questionnaire pilot study, we established that the nouns that show an asymmetry in ellipsis contexts quite generally also pass the other diagnostics for feminine>masculine markedness in that the singular masculine (but not feminine) may be used to refer to an entity of unknown

³ The pattern is clear where the morphology consists of a marked (feminine) vs. unmarked (masculine) opposition. The pattern breaks down when the morphology deviates from this form, especially where there is a specialized vocabulary that speakers are aware of, but unsure of, as in the case of domesticated examples (*horse/stallion/mare*/etc.). We focus for now on the cases with transparent morphological markedness asymmetries, as our main point is to show that there are exceptions to the morpho-semantic parallels even where the morphology is straightforward. We return to this point briefly below.

gender, and that the plural masculine (but not feminine) is used to refer to groups of mixed gender.

2.2 Ellipsis and markedness

We are now in a position to return to the ellipsis asymmetry. For concreteness, we assume that gender features on a noun introduce presuppositions (cf. Cooper 1983, and more recently Heim 2008, Sauerland 2008, Percus this vol., and references therein). Thus, all else being equal, the feminine form introduces a presupposition that the referent is female, while the masculine form crucially introduces no presupposition about gender/sex.

Consider first (4b), analyzed as in (12). The antecedent has the marked, feminine form (12a). There are two choices for resolving the ellipsis at LF (we enclose material that is elided, but interpreted at LF, within angled brackets). Resolving the ellipsis with the masculine (unmarked) form as in (12b) is semantically appropriate, but violates parallelism, as it is not identical to the antecedent. On the other hand, (12b') satisfies parallelism, but is infelicitous, as it carries the presupposition that John is female.⁴

- (12) a. Mary is a waitr-ess and John is ... too.
 PRESUPP: [FEM]
- LF: b. * and John is <a waiter>
 PRESUPP: [Ø]
- LF: b'. # and John is <a waitr-ess>
 PRESUPP: [FEM]

Now consider the reverse example (4a), with the ellipsis resolved as in (13). In this case, it is the semantically most appropriate form, (13b'), that is excluded as a parallelism violation. Our focus, then, is on (13b), the form that respects parallelism.

- (13) LF: John is a waiter and Mary is ... too
 PRESUPP: [Ø]
- LF: b. and Mary is <a waiter>
 PRESUPP: [Ø]
- LF: b'. * and Mary is <a waitr-ess>
 PRESUPP: [FEM]

Under the markedness hypothesis, *waiter* does not introduce a presupposition of “not female” but rather introduces no presupposition (about gender). Parallelism is respected by positing the unmarked form in the elided conjunct as well, but in contrast to (4b)/(12), there is no gender clash. Mary is female, but the unmarked form introduces no presupposition and hence is compatible in principle with a subject of either sex. The sentence is thus felicitous and the markedness asymmetry accounted for directly.

⁴ One might hesitate about the presuppositional treatment of phi-features on the grounds that examples we treat as presupposition failures have the ‘feel’ of something stronger, e.g., of contradictions. We do not see that our main points would be affected if gender was taken to mark an assertion rather than a presupposition, and so see this as an issue we may put aside.

The account is incomplete, though, since we must now consider the relevant forms outside of ellipsis contexts. Consider the pair in (14).

- (14) a. Mary is a waitr-ess.
 b. #Mary is a waiter.

The judgment here is somewhat of an idealization, as some (many?) speakers of English accept forms such as (14b). (Although even speakers we consulted who accept (14b) find a contrast between that and the ellipsis context.) For other languages in our study, we generally found a contrast analogous to (14) for *actress*-class nouns, and typically, the contrast was sharper than in English. Compare Russian (15) to the ellipsis context in (6), and Brazilian Portuguese (16) to (1) and (2).⁵

- (15) a. Moja sestra moskvič-ka.
 my sister Muscovite-FEM
 ‘My sister is a Muscovite-FEM.’
 b. # Moja sestra moskvič. (Rothstein 1973:463)
 my sister Muscovite
 ‘My sister is a Muscovite.’
- (16) a. A Maria é atr-iz / médic-a / american-a
 the Maria is actr-ess doctor-FEM American-FEM
 ‘Mary is an actress-FEM/doctor-FEM/American-FEM.’
 b. # A Maria é ator / médic-o / American-o
 the Maria is actor doctor-MASC/ American-MASC
 ‘Mary is an actor/doctor/American.’

Why should this be the case? Indeed, under a parallelism view of ellipsis, the unacceptable (b.) sentences in (14)-(16) are properly contained in the corresponding acceptable examples of mismatched ellipsis. The contrast finds a straightforward account within the system by assuming some version of a competition principle that favours the strongest (most explicit) form compatible with the context, for example, Heim’s (1991) *Maximize Presupposition* (cf. Sauerland 2008).⁶ In other words, we assume that (14b) indeed yields no gender clash, but since two forms are in principle available, Maximize Presupposition applies and (14b) is blocked by the competing form in (14a) which makes a stronger presupposition.

The crucial difference between such structures in isolation and the same structures in ellipsis contexts is the parallelism requirement in the latter. Maximize Presupposition decides among competing, grammatical (i.e., convergent) forms. Parallelism serves in the relevant examples to eliminate one form from consideration, effectively bleeding the effects of Maximize Presupposition. Concretely, in (13) a feminine form in the elided conjunct would violate the

⁵ Rothstein notes significant variation in Russian, among speakers, and among lexical items, in the felicity of predicating a masculine noun of a feminine subject. We direct our attention here to the explanation of forms where structures like (14b) are infelicitous. Our account accommodates the variation, though, in the sense that it also readily characterizes those speakers and nouns where examples like (14b) are acceptable—in those situations, parallelism is satisfied and there is no puzzle to explain.

⁶ Alternatively, this could be a morphological principle, such as Andrews’s (1990) *Morphological Blocking Principle*. In the text, we treat the principle as pragmatic, though nothing of substance would change in the account if it is morphological. See also note 4.

parallelism requirement and is thus ungrammatical (13b'). Only the unmarked form (13b) is visible to Maximize Presupposition, and in this context, there is thus no competition. The unmarked form is (trivially) the strongest available form. In sum, the *actress* class shows the behaviour that is expected under a markedness asymmetry, in tandem with a parallelism requirement on ellipsis.⁷ This account is built on relatively familiar assumptions, and straightforwardly covers the general pattern seen in English, German, Russian, Brazilian Portuguese, etc. Yet in all of these languages, the expected pattern fails to materialize with a different class of nouns. It is to this that we turn next.

3. NOBLE EXCEPTIONS – THE *PRINCESS* CLASS

Although we now appear to understand the workings of the ellipsis diagnostic, the test fails to reveal an expected markedness asymmetry with nouns denoting titles/ranks. The examples in (17)-(20) constitute near minimal pairs with those considered above. In particular, they show the same morphological structure / alternations as the *actress* type nouns, yet contrast in their semantic behaviour, as revealed in ellipsis. We will refer to these as *princess*-type nouns.

- (17) a. # Humperdinck is a **prince** and Buttercup is too. [princ-ess]
 b. # Buttercup is a **princ-ess** and Humperdinck is too. [prince]
- (18) a. # Otto war (ein) **König** und Edith ... auch. [König-in] Ger.
 Otto was a king and Edith ... also queen-FEM
 ‘Otto was a king, and Edith was too.’
 b. # Edith war (eine) **König-in** und Otto ... auch. [König]
 Edith was a queen -FEM and Otto ... also king
 ‘Edith was a queen, and Otto was too.’
- (19) a. # Dolgorukij **knjaz'** i Volkonskaja tozhe. [knjag-inja] Rus.
 Dolgorukij prince and Volkonskaja too princ-ess
 ‘Dolgorukij was a prince, and Volkonskaja was too.’
 b. # Volkonskaja **knjag-inja** i Dolgorukij tozhe. [knjaz']
 Volkonskaja princ-ess and Dolgorukij too prince
 ‘Volkonskaja was a princess, and Dolgorukij was too.’
- (20) a. # Aquele senhor é **barão** e aquela senhora também é. [baron-esa] BP
 that mister is baron and that mrs. also is baron-ess
 ‘That man is a baron, and that woman is too.’
 b. # Aquele senhora é **baron-esa** e aquele senhor também é. [barão]
 that mrs. is baron-ess and that mister also is baron
 ‘That woman is a baroness, and that man is too.’

⁷ On our reading, Jakobson tacitly held such a competition-based view, inasmuch as he took the unmarked form to assert [NOT F] just when it is juxtaposed with the marked member of the opposition. Thus, the example “net – osel” in (9c) is meaningful, and specifically means that the animal is masculine, in effect by asserting that the unmarked form is the strongest form that may be truthfully used. Given two natural genders, the denial of feminine invites the inference of masculine sex.

We tentatively include kinship terms in the *princess*-class, as the following examples from Brazilian Portuguese and German illustrate, although we note that there was variation here and some kinship nouns for some speakers patterned instead with the *actress*-class.⁸

- (21) a. # O Cláudio é um **ti-o** meu e a Denise também é. [ti-a]
 the Cláudio is an uncle my and the Denise also is aunt
 ‘Claudio is an uncle of mine, and Denise is too.’
- b. # A Denise é uma **ti-a** minha e o Cláudio também é. [ti-o]
 the Denise is an aunt my and the Cláudio also is uncle
 ‘Denise is an aunt of mine, and Claudio is too.’
- (22) a. # Der Richard ist ein **Schwager** von mir, und die Christine auch. [Schwäger-in]
 the Richard is a broth.-in-law of me and the Christine also sister-in-law
 ‘Richard is a brother-in-law of mine, and Christine is too.’
- b. # Die Christine ist eine **Schwäger-in** von mir, und der Richard auch. [Schwager]
 the Christine is a sist.-in-law of me and the Richard also bro-in-law
 ‘Christine is a sister-in-law of mine, and Richard is too.’

The striking property of nouns of the *princess* class is that both the masculine and feminine forms pattern as marked, under the ellipsis test. That is, they both fail to license ellipsis of the contrasting gender.⁹ These same pairs also fail to show a markedness asymmetry under other diagnostics mentioned above. For example, in contrast to *actress* nouns, neither the masculine nor feminine singular can be used for a referent of unknown gender; compare (23a) and (24a).

- (23) a. Is there a waiter in that picture? ?Yes – Mary.
 b. Is there a waitress in that picture? #Yes – John.
- (24) a. Is there a prince in that picture? #Yes – Princess Anne.
 b. Is there a princess in that picture? #Yes – Prince William.

Likewise in plurals there is a contrast between *actress* nouns and *princess* nouns:

- (25) a. *waiters* all males OR group of mixed gender
 b. *princes* all males only NOT group of mixed gender

⁸ *Enkel~Enkelin* ‘grandchild’ showed *actress*-class behaviour for one of two German speakers initially consulted, while *Vorfahre~Vorfahrin* ‘forbearer’ did for both speakers. Kinship terms presented an additional complication in that quite a few show suppletive gender pairs across languages: *father~mother* (**father-ess*); *uncle-aunt* etc. We have found no suppletive pairs that pattern with the *actress* or *médico* classes. This could be because suppletive pairs are predominant in kinship and nobility semantic fields; alternatively, it could be that these suppletive pairings do not constitute grammatical gender pairs at all (contra Osthoff 1899).

⁹ This behaviour is also observed under nominal ellipsis in non-predicate position, as (i) illustrates.

- (i) #Juan visitó a su **tí-o** y Pedro prometió visitar a la ~~[tí-a]~~ de él. Spanish
 Juan visited to his uncle and Pedro promised visit to the aunt of he
 #‘Juan visited his uncle, and Pedro promised to visit his [i.e. aunt]’ (Kornfeld & Saab 2004)

feminine will thus include nouns that are specified as male (such as *prince*) and those not specified for gender (such as *actor*, *lion*, etc.).

It should be noted at this point that we must recognize a certain vagueness in the meaning of the feminine suffix(es). The meaning appears to be essentially additive/intersective when it attaches to an unmarked stem (a *lioness* is a [female] and a [lion]), but under the view presented here, it cannot be simply additive for nobility nouns: if it is part of the lexical semantics of *prince* that a *prince* is male, then a *princess* should be a contradiction. The meaning of *-ess* must instead be something more like ‘the female counterpart to X’, where the specific nature of the ‘counterpart’ relation is left somewhat vague (and thus established by convention). This seems to us to be essentially correct for nobility nouns; compare, for example, the range of meanings of English *princess*: the daughter of a monarch, or the wife of a prince. Similarly German *König-in* ‘queen’ (like English *queen*) refers either to a female monarch or to the wife of a (male) monarch. We take it that this is not a matter of ambiguity as such, but rather vagueness, and that the ‘counterpart’ meaning may subsume the general ‘female X’ meaning seen with *actress* class nouns.

We might hazard to speculate further, that the reason nobility nouns have the structure they do lies in the social/historical convention (at least in Western Europe) whereby titles of rank accrue only secondarily to women. As a matter of culture, the relationship of prince:princess, king:queen etc. is inherently asymmetrical in a way in which professions nouns, demonyms, animal terms etc. are not. In addition to the obvious fact of a male-prioritizing line of ascension (a queen is the reigning monarch only when there is no male member available) there is also an asymmetry in the bestowing of titles via marriage—when a king or prince marries, his wife becomes a queen, resp. princess, but when a queen or princess marries, her spouse does not receive the counterpart title of king, resp. prince. It may be this cultural fact that finds itself linguistically manifest, via the meaning of nobility noun roots, in the special behaviour of nobility nouns in ellipsis. This speculation would, if substantiated, require us to qualify the basis of our semantic classification. Specifically, we are led to predict that profession nouns would pattern with nobility nouns in the *princess* class wherever these nouns are used in a title-like fashion (for men), with marked feminine forms extended to wives by courtesy.

In fact, there is some evidence, at least from Brazilian Portuguese, that this might be correct. The noun *embaixador* ‘ambassador’ has two corresponding feminine forms: *embaixadora* and *embaixatriz*. The former refers to a female ambassador, the latter to the wife of an ambassador.¹⁴ Now, consider the behaviour of *embaixador* under ellipsis. The acceptability of the masculine form in the first conjunct, when the subject of the second is feminine, depends crucially on which of the two feminine meanings is to be construed, as shown in (27). The overt material is the same in both examples, but the ellipsis is licit only in case Maria is an ambassador in her own right (the construal of *embaixador* as a profession), and not if Maria is the wife of an ambassador (the construal of *embaixador* as a title).

- (27) a. O João é embaixador e a Maria também é. [embaixador-a]
 the João is ambassador and the Maria also is ambassador-FEM
- b. #O João é embaixador e a Maria também é. [embaixatr-iz]
 the João is ambassador and the Maria also is ambassador-FEM

¹⁴ Note that this is not a matter of the morphemes themselves. The *-or/-riz* alternation does not exclusively refer to the ‘wife of’ counterpart relation, cf. *ator/atriz* ‘actor/actress’ discussed above. Note that the *embaixador/embaixadora* alternation is actually in the *médico* class discussed below, though this is not relevant to the point being made here.

This pattern conforms to our predictions. Under the professional construal, the recovered form in the ellipsis does not specify gender, and is true (she is an ambassador, and female). Under the titular construal, however, the form that satisfies parallelism in ellipsis yields a false assertion, when predicated of *Maria*, as she does not bear the title in her own right.¹⁵

4. INFLECTION VS. DERIVATION: THE *MÉDICO* CLASS

In the preceding section, we argued that nobility nouns (and some kinship terms) constitute a systematic exception to an otherwise regular markedness asymmetry in morphology and semantics. We understand this exception in terms of a distinction in the semantics of gender and noun roots, ultimately, we speculate, with a cultural (extralinguistic) basis. We now return to another class of nouns that fails to show the expected markedness asymmetry in ellipsis (or does so only very weakly), but for which no semantic characterization seems forthcoming. This class of nouns is represented by the BP pair *médico/médica*. This class is essentially restricted to BP within our sample, but within that language, it is a significant class.

Nouns of the *médico* class differ from those of both previously discussed classes, in that, for *médico*-class nouns, either form licenses the ellipsis of the other.¹⁶

- (28) a. O Pedro é médic-o e a Marta também é. [médic-a]
 the Pedro is doctor-MASC and the Marta also is doctor-FEM
- b. ?A Marta é médic-a e o Pedro também é. [médic-o]
 the Marta is doctor-FEM and the Pedro also is doctor-MASC

Nouns of the *médico* type show this particular behaviour in the ellipsis test, but on the other markedness diagnostics, they pattern together with the regular nouns displaying a gender asymmetry (the *actress* class). Thus:

- (29) a. as médicas a group of female doctors only
 b. os médicos a group of male doctors, or a mixed group
- (30) a. Tem um médic-o na figura? Tem, a Maria.
 have a doctor-MASC in-the picture have the Maria
 ‘Is there a doctor in the picture? Yes, there is Maria.’
- b. Tem uma médica na figura? #Tem, o João.
 have a doctor-FEM in-the picture have the João
 ‘Is there a doctor-FEM in the picture? #Yes, there is João.’

¹⁵ In pre-revolutionary Russian, the feminine suffix *-ša* was added to high-status professional titles for the wife of the profession holder (*doktor/doktor-ša*); we would of course expect these noun pairs to pattern with (or more accurately ‘to have patterned with’) the titular use of *embaixador*. For discussion of this suffix in Russian, and the complications it has engendered in twentieth century usage of gender designators with profession nouns, see Comrie and Stone (1978:chapter 6) and Rothstein (1973).

¹⁶ There is a weak contrast between masculine and feminine antecedents, as noted, but the contrastive judgments between the different classes are quite sharp. For example, (28b) is acceptable, perhaps slightly odd, while (2b) is strongly infelicitous.

For the *médico* class, then, what needs to be explained is not only these nouns' special behaviour regarding the ellipsis diagnostic (why both genders are permitted in mismatched contexts), but also why the unexpected behaviour is only evidenced in the ellipsis test and not with the other markedness diagnostics. A complete account should also shed light on why this class of nouns occurs in BP, but did not turn up in the other languages we investigated.

In contrast to the preceding section, we suggest here a morphological account of the behaviour of these nouns. Note first that nouns of the *médico* type differ from those considered so far, in that the morphological asymmetry is not in the presence versus absence of a (feminine) affix, but rather in an alternation in theme vowel (*-o/-a*). We will argue that this is part of the key to understanding the behaviour of these nouns. It cannot be the whole picture, since kinship terms that show the same *-o/-a* alternation pattern with (17)-(20), as evidenced in (21), repeated below as (31).

- (31) a. # O Cláudio é um **ti-o** meu e a Denise também é. [ti-a] BP
 the Cláudio is an uncle my and the Denise also is aunt
 'Claudio is an uncle of mine, and Denise is too.'
- b. # A Denise é uma **ti-a** minha e o Cláudio também é. [ti-o]
 the Denise is an aunt my and the Cláudio also is uncle
 'Denise is an aunt of mine, and Claudio is too.'

However, we have argued above that (many) kinship nouns pattern with nobility nouns and have a special semantics. Thus, the root *ti-* is not 'sibling of parent, or spouse thereof', but rather 'brother (in-law) of parent'. The feminine form here must mean 'female counterpart to X' and not 'female X'. The behaviour of the kinship nouns is thus understood as in section 3. Indeed, it appears that with the exception of kinship and nobility nouns (a semantically defined class), all nouns in BP that form the feminine with *-a* added to the masculine stem are in this class.¹⁷

The *-o/-a* alternation is significant, since it is the same morphology that is used for gender on adjectives in BP. Moreover, unlike the nominal gender discussed in section 2, adjectival gender agreement is systematically ignored in calculating ellipsis identity, as shown in (32).

- (32) a. O Fernando é bonit-o e a Carol também é. [bonit-a] BP
 the Fernando is beautiful-MASC and the Carol also is
 'Fernando is beautiful, and Carol is too.'
- b. A Carol é bonit-a e o Fernando também é. [bonit-o]
 the Carol is beautiful-FEM and the Fernando also is
 'Carol is beautiful, and Fernando is too.'

Indeed, this appears to be part of a larger generalization, namely, that inflectional morphology is quite systematically ignored in ellipsis resolution (see, among others, Lasnik 1995,1999, Stjepanović 1997, Nunes and Zocca 2005, Sauerland 2008). For BP, we illustrate as well with verbal agreement in person:

- (33) a. Nós sempre comprá-va-mos aqui, mas eles não. [compra-va-m]
 we always buy-PAST-1P.PL. here, but they not buy-PAST-3P.PL.
 'We used to shop here, but they didn't.'

¹⁷ Morphologically, these are of two types (see the appendix). On the one hand are nouns, like *médico*, which show an *-o/-a* alternation. On the other, are nouns that end in *-or* in the masculine, and in *-or-a* in the feminine (*professor(a)*, *cantor(a)* etc.).

- b. Eles sempre compra-va-m aqui, mas nós não. [compra-va-mos]
 they always buy-PAST-3P.PL. here, but we not buy-PAST-1P.PL.
 ‘They used to shop here, but we didn’t.’

There are various proposals in the literature to make agreement features invisible for the purposes of the identity condition on ellipsis. In their most general form, there are two families of proposal, either of which will suffice for present concerns. On the one hand, agreement may be treated as a syntactic operation (feature matching or sharing), with features on the agreement target deleted at LF. On the other, the syntax may operate without specifying the values of agreement features, and these features may be filled in by a transmission or copying rule operating only in the morphology. Since the effect is the same—features on agreement targets are not valued at LF—we need not decide between these here.¹⁸ What is important for present concerns is that examples like (32) have no gender features on the adjective at the point where identity is calculated. Thus, there is no mismatch, and both examples are acceptable.

- (34) a. LF: O Fernando é bonit- e a Carol também é <bonit->.
 Morph: bonit-o
- b. LF: A Carol é bonit- e o Fernando também é <bonit->.
 Morph: bonit-a

We therefore suggest that the *médico/médica* alternation has a morphosyntax more like that of adjectives than of the noun pairs considered above. In particular, we suggest that root *medic-* is not inherently specified for gender, and that moreover, the choice of theme vowel (*o/a*) arises via agreement. Since we know independently that agreement features are ignored in calculating identity for the purposes of ellipsis (see (32)-(33)), it follows that either form can license ellipsis of the other. The level of representation at which ellipsis identity is calculated thus looks as in (35).

- (35) a. LF: O Pedro é médic- e a Marta também é <médic->.
 Morph: medic-o
- b. LF: A Marta é médic- e o Pedro também é <médic->.
 Morph: medic-a

In neither case is there a gender mismatch at the relevant level (LF), and so the identity relation is satisfied. Other than the kinship terms, the membership of a given noun in BP in either the *actress*-class or the *médico*-class is straightforwardly determined by its morphology. If the noun shows a theme vowel alternation for gender (including *-Ø/-a* as a special case for nouns in *-or*), then the gender marking is inflectional, and the noun is in the *médico*-class. If, by contrast, the feminine is derived by means of a derivational suffix, then the noun is in the *actress*-class, with attendant behaviour in ellipsis.

¹⁸ The agreement-plus-deletion view is superficially, at least, consistent with Chomsky’s view of agreement in the Minimalist Program writings. The agreement-as-morphology view is the preferred view among semanticists looking at related issues in bound variable pronouns, see Kratzer 1998, to appear, Schlenker 1999, Heim 2008 among others. See also Bobaljik 2008 for a syntactic proposal from the perspective of agreement-as-morphology. We do depart from feature-sharing versions of agreement, such as Pollard & Sag (1994) inasmuch as it is important for us that the phi-features on the targets of agreement do not introduce presuppositions.

At this point, two further questions arise. First, why do *médico*-class nouns differ from *actress*-class nouns only in ellipsis, but not on other markedness diagnostics? And second, why is the *médico*-class only evident in BP, from among our sample of languages.

The answer to the first question is straightforward. We have assumed throughout that there is indeed a markedness asymmetry in the morphology, and for BP—indeed, for Romance generally—we assume the following (minimum) rules for the realization of the theme vowels / inflectional endings:

- (36)
- | | | |
|----|---|-------------|
| -a | ↔ | FEM |
| -o | ↔ | <elsewhere> |

Treating the *-o* as the unmarked exponent captures the traditional markedness diagnostics, requiring that the *-o* form be used in all non-feminine contexts. This includes masculines, and also, e.g., mixed groups (29), or where gender is uncertain (30), in the standard manner. The distinction between the *actress*- and *médico*-classes is therefore not observable in such contexts. It is only in ellipsis, where (36) is irrelevant (because the second noun is simply unpronounced/unrealized), that the difference between the two classes is manifest. On tests other than ellipsis, the familiar masculine/feminine asymmetry will emerge with this class of nouns as well, but this time due to the morphological asymmetry expressed in (36).

We may now turn as well to the second question, though here we may offer only a partial answer. Nouns of the *médico* type are absent from the other languages in our survey. The discussion above yields a simple answer as to why this class is absent from English, German and Russian, but we must leave as a mystery why the distinction does not surface in Spanish and Italian.¹⁹

English lacks a *médico* class as it lacks inflectional gender altogether. In German, although there is inflectional gender, there is no (inflectional) gender agreement on predicates, which are obligatorily bare. Assuming this to be a property of German morphosyntax (and not specifically of adjectives), the *médico*-class is excluded from this language.

- (37)
- | | | | | | | | |
|----|----------|-----------|-------------|---------|-------------|------------|--------------------|
| a. | ein-e | schlau-e | Student-in | / | ein | schlau-er | Student |
| | a-FEM | smart-FEM | student-FEM | | a | smart-MASC | student |
| b. | der | Student | / | die | Student-in | ist | schlau(*-e/-er) |
| | the.MASC | student | / | the.FEM | student-FEM | is | smart(*-FEM/-MASC) |

We turn now to Russian, in which, as in BP, predicate adjectives do show gender agreement with the subject. In this language, we might expect a class of nouns like the *médico/médica* class. However, Russian lacks nouns which express a gender alternation merely by changing declension class (in Russian, this would come out as *-Ø/-a*). Instead, for true nominals, the feminine is apparently always derived by means of a derivational affix:

- (38) student / student-ka * student-a

While we have no synchronic explanation of this gap, we may reduce the absence of any nouns showing *médico*-class behaviour in ellipsis to this prior lexical gap. In fact, we may refine this

¹⁹ Spanish and Italian, like BP, display the same *-o/-a* alternation on some nouns as on adjectives. Gender is ignored in these languages in computing parallelism (as in (32)), yet so far as we can tell, nouns with the *-o/-a* alternation pattern with the *actress* class and not the *médico* class. This is a problem for our account that we leave open.

statement somewhat. Russian does have a class of substantivized adjectives, which show adjectival inflectional morphology, but are syntactically nouns in their distribution. Among this class are some nouns referring to professions, which do show an inflectional masculine/feminine alternation. We predict that exactly these nouns will show the *médico* type behaviour in ellipsis. Preliminary inquiries suggest that this is correct.²⁰

- (39) a. Vanja dezhurn-yj, i Masha ... tozhe.
 Vanja on.duty-MASC, and Masha ... also
 ‘Vanja is the duty person and Masha is too.’
- b. Masha dezhurn-aja, i Vanja ... tozhe.
 Masha on.duty-FEM and Vanja ... also
 ‘Masha is the duty person and Vanja is too.’

Our hypothesis is that the morphological characteristics of nominal gender morphology will predict the behaviour of a given nominal pair under ellipsis. Nouns that show inflectional morphology—i.e., the same morphology as adjectives—should pattern with the *médico* class, while nouns that show derivational gender morphology should fall into the *actress* class, once the semantically-based exceptions are filtered out. This hypothesis seems to work towards explaining why BP has a large *médico* class, but the Germanic and Slavic languages do not, but the hypothesis fails to make the right prediction for Spanish and Italian.

5. CONCLUSIONS / FUTURE RESEARCH

We have presented in this paper an array of data where, contrary to Jakobson’s famous examples, morphological and semantic patterns of markedness in gender do not align. However, we have argued that the primary counter-examples to Jakobson’s thesis constitute a relatively homogenous class (nobility and kinship) across the languages we have surveyed, suggesting a systematicity to the exceptions. We have provided an account consistent with Jakobson’s basic proposal, but embellished with a marginally richer semantics for these classes of nouns, where the masculine forms do indeed carry a presupposition/assertion of male-ness. In addition, we offered a tentative speculation about the extra-linguistic basis for this special property of nobility nouns. We have also noted a class of nouns (*médico/a*) where the gender asymmetry in ellipsis is weaker than for the cases discussed by Jakobson, if not absent altogether, even though other markedness diagnostics do indicate an asymmetry for these nouns. We argued that the account of this class of exceptions lies in the morphology, rather than the semantics. Specifically, we invoked the conservative view of a distinction between gender as derivation and as inflection, arguing that by and large, gender morphology on nouns is inflectional when it uses the same morphology as adjectival gender morphology, and is derivational when it uses dedicated nominal feminine suffixes. This account works for many of the languages considered here, and explains why the *médico* class is absent from English, German and Russian (except for substantivized adjectives in the latter), however, we are unable to offer an account of why Spanish and Italian pattern with English, German etc. and not with Brazilian Portuguese.

Our primary contribution, as we see it, has thus been to offer a refinement of the views of markedness and underspecification in the realm of gender morphology as inherited from

²⁰ As a substantivized noun, this was the designation for the monitor on each floor in Soviet-era hotels, but the judgment here may be influenced by a parallel use as a true adjective (meaning ‘on duty’). The form *zavedujushchij* ‘manager’ should work this way as well, though the contrast as reported to us by one speaker was less sharp. We make the same prediction for the few profession nouns in German that show adjectival gender inflection, such as *Beamter~Beamtin* ‘clerk’.

Jakobson. It remains to be seen how the paradigms discussed here will (or will not) scale up to consideration of languages beyond the genetically limited sample we have begun with, and especially, to those with a more diverse gender system. In the worst case, we suggest that we have shed some light on the inner workings of gender in the relationship of morphology and semantics in Western European languages; it remains open whether, or in what way, this reflects anything more fundamental.

6. APPENDIX

Below is a sample of predicative nouns from the data we collected, grouped according to their behaviour in gender-mismatched ellipsis. As a reminder, here is a summary of each class.

(40) Classes of predicative nouns

Class	-MASC antecedent -FEM ellipsis	-FEM antecedent -MASC ellipsis
<i>actress</i> nouns	√	*
<i>princess</i> nouns	*	*
<i>médico/a</i> nouns	√	√/?

6.1 *Actress* nouns

English

lion/lioness
tiger/tigress
actor/actress
waiter/waitress
steward/stewardess
comedian/comedienne

Brazilian Portuguese

tigre/tigresa ‘tiger/tigress’
leão/leoa ‘lion/lioness’
ator/atriz ‘actor’
poeta/poetisa ‘poet’
garçom/garçonete ‘waiter’

Spanish

león/leona ‘lion/lioness’
tigre/tigresa ‘tiger/tigress’
gato/gata ‘cat’
oso/osa ‘bear’
professor/professora ‘teacher’
celador/celadora ‘janitor’
poeta/poetisa ‘poet’
actor/actriz ‘actor/actress’
director/directora ‘director’

German

Elefant/Elefantin ‘elephant’
Hund/Hündin ‘dog’
Ungar/Ungarin ‘Hungarian’
Ausländer/Ausländerin ‘foreigner’

<i>Österreicher/Österreicherin</i>	‘Austrian’
<i>Pilot/Pilotin</i>	‘pilot’
<i>Student/Studentin</i>	‘student’
<i>Stadtrat/Stadträtin</i>	‘city councillor’
<i>Rektor/Rektorin</i>	‘headmaster/headmistress’
<i>Leiter/Leiterin</i>	‘principal’
<i>Kunde/Kundin</i>	‘customer’
Russian	
<i>xomjak/xomjachka</i>	‘hamster’
<i>medved’/medvedica</i>	‘bear’
<i>rabochij/ rabochaja</i>	‘worker’
<i>krest’janin/ krest’janka</i>	‘peasant’
<i>uchitel’/ uchitel’nica</i>	‘teacher’
<i>pevec/ pevica</i>	‘singer’
<i>tancor/tancovshtshica</i>	‘dancer’
<i>dvornik/dvornichixa</i>	‘yard keeper’
<i>prodavec/prodavshhtshica</i>	‘salesperson’
<i>laborant/laborantka</i>	‘lab assistant’
<i>oficiant/oficiantka</i>	‘waiter/waitress’
<i>portnoj/portnixa</i>	‘tailor’
Romanian	
<i>caine/catea</i>	‘dog’
<i>urs/ursaica</i>	‘bear’
<i>tigru/tigroaica</i>	‘tiger/tigress’
<i>student/studenta</i>	‘student’
<i>chelner/chelnerita</i>	‘waiter/waitress’
<i>doctor/doctorita</i>	‘doctor’
<i>secretar/secretara</i>	‘secretary’
<i>dansator/dansatoare</i>	‘dancer’

6.2 Princess nouns

English

prince/princess
king/queen
count/countess
baron/baroness
uncle/aunt
brother/sister
husband/wife
brother-in-law/sister-in-law

Brazilian Portuguese

<i>príncipe/princesa</i>	‘prince/princess’
<i>rei/rainha</i>	‘king/queen’
<i>conde/condessa</i>	‘count/countess’
<i>barão/baronesa</i>	‘baron/baroness’
<i>tio/tia</i>	‘uncle/aunt’
<i>irmão/irmã</i>	‘brother/sister’
<i>marido/mulher</i>	‘husband/wife’
<i>cunhado/cunhada</i>	‘brother-in-law/sister-in-law’
<i>genro/nora</i>	‘son-in-law/daughter-in-law’

Spanish

<i>príncipe/princesa</i>	‘prince/princess’
<i>rey/reina</i>	‘king/queen’

<i>conde/condesa</i>	‘count/countess’
<i>barón/baronesa</i>	‘baron/baroness’
<i>tío/tía</i>	‘uncle/aunt’
<i>hermano/hermana</i>	‘brother/sister’
<i>yerno/nuera</i>	‘son-in-law/daughter-in-law’
<i>cuñado/cuñada</i>	‘brother-in-law/sister-in-law’
German	
<i>Prinz/Prinzessin</i>	‘prince/princess’
<i>König/ Königin</i>	‘king/queen’
<i>Graf/Gräfin</i>	‘count/countess’
<i>Baron/Baronin</i>	‘baron/baroness’
<i>Enkel/Enkelin</i>	‘uncle/aunt’
<i>Bruder/Schwester</i>	‘brother/sister’
<i>Schwäger/Schwägerin</i>	‘brother-in-law/sister-in-law’
<i>Cousin/Kusine</i>	‘cousin’
Russian	
<i>princ/princessa</i>	‘prince/princess’
<i>dvorjanin/dvorjanka</i>	‘nobleman, noblewoman’
<i>graf/grafinja</i>	‘count/countess’
<i>svjokor/svekrov’</i>	‘father-in-law/mother-in-law’
<i>brat/sestra</i>	‘brother/sister’
<i>svat/svat’ja</i>	‘son-in-law’s father/daughter-in-law’s father’
<i>kum/kuma</i>	‘godfather/godmother of one’s child’
<i>dedushka/babushka</i>	‘grandfather/grandmother’
Romanian	
<i>rege/regina</i>	‘king/queen’
<i>baron/baronesa</i>	‘baron/baroness’
<i>print/printesa</i>	‘prince/princess’
<i>unchi/matusa</i>	‘uncle/aunt’
<i>nepot/nepoata</i>	‘nephew/niece’
<i>bunic/bunica</i>	‘granfather/grandmother’
<i>cumnat/cumnata</i>	‘brother/sister’
<i>socru/soacra</i>	‘father-in-law/mother-in-law’

6.3 *Medico/a* nouns

Brazilian Portuguese	
<i>médico/médica</i>	‘doctor’
<i>engenheiro/engenheira</i>	‘engineer’
<i>enfermeiro/enfermeira</i>	‘nurse’
<i>secretário/secretária</i>	‘secretary’
<i>diretor/diretora</i>	‘director’
<i>professor/professora</i>	‘teacher’
<i>cantor/cantora</i>	‘singer’
<i>produtor/produtora</i>	‘producer’

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