Natural Gender and Interpretation in Greek: Comments on Merchant (2014)*

[...]

December 11, 2019

Abstract
Merchant (2014, “Gender mismatches under nominal ellipsis”, Lingua, 151: 9–32) makes the following two claims about nominal ellipsis in (Modern) Greek. (i) There are three classes of masculine-feminine noun pairs that differ in whether nominal ellipsis with gender mismatch is possible. (ii) Nominal ellipsis with gender mismatch is possible in predicative positions but not in argument positions. We take issue with both of these claims. Our qualms about (i) are relatively minor. It appears that his primary data are hard to replicate, but we present novel sets of data involving focus constructions that also demonstrate that Greek has three classes of masculine-feminine noun pairs. As for (ii), we argue that it is empirically inaccurate and nominal ellipsis with gender mismatch is in fact possible in argument positions as well. This is problematic for the analysis Merchant develops, as it is tailored to derive (ii). Furthermore, we argue that his analysis does not give a straightforward account of observations about gendered nouns in focus constructions. We put forward an alternative account of the three classes of gendered nouns, building on the idea that there are two ways in which nouns can be associated with (natural) gender inferences: (a) via lexical specification, and (b) via competition with the opposite gender (gender competition). We propose that nouns with lexically specified gender involve gender inferences in the assertive dimension of meaning, and show how this accounts for the data.

1 Introduction
All nouns in (Modern) Greek trigger gender agreement/concord with items such as determiners and adjectives. In a language like this, two types of gender are typically recognized, namely, grammatical gender and natural gender.1 Roughly put, a grammatical gender is a gender without semantically interpreted gender inference. For instance, thalasa ‘sea’ in Greek is a feminine noun, triggering feminine agreement with determiners and adjectives, but this gender assignment does not have a semantic correlate.

*We would like to thank [...] and three anonymous reviewers for Natural Language and Linguistic Theory for helpful discussion and useful comments. We also benefitted from comments from the audiences of [...] All errors are our own.

1We distinguish gender and noun (declension) classes, because neither uniquely (if statistically) determines the other, and define gender in terms of agreement. See Corbett 1991 and Kramer 2015 for extensive discussion on this point.
For nouns denoting humans, on the other hand, the overwhelming tendency is that the gender specification correlates with the gender in the non-grammatical sense. For example, the masculine noun *adherfos* and the feminine noun *adherfi* not only share the morphological root *adherf*-, but also a semantic core in that both describe siblings, with the sole interpretive difference being the gender specification: *adherfos* means ‘male sibling’ or ‘brother’, and *adherfi* means ‘female sibling’ or ‘sister’. For this reason, we say that these nouns have natural genders. They also trigger obligatory gender agreement with determiners and adjectives, on a par with other nouns with gender specifications in this language, as illustrated by (1).

(1)  

(1a) O the Petros episkefthike *enan/mia* *arosto/arosti* *adherfo* tu.  
the Petros visited *one.M/*one.F sick.M/*sick.F sibling.M his  
‘Petros visited a male sibling of his.’

(1b) O the Petros episkefthike *enan/mia* *arosto/arosti* *adherfi* tu.  
the Petros visited *one.M/*one.F *sick.M/sick.F sibling.F his  
‘Petros visited a female sibling of his.’

In addition to nouns like *adherfos-adherfi*, Greek has a class of nouns that only have one form but can trigger masculine or feminine agreement on determiners and adjectives, depending on the natural gender of the individual(s) they are used to describe. Such nouns are called epicene nouns. For example, *jatros* ‘doctor’ is an epicene noun. As shown in (2), it is compatible with feminine or masculine determiners and adjectives, and the agreement markings on determiners and adjectives affect the interpretation.

(2)  

(2a) O the Petros episkefthike *enan* *kalo* *jatro*.  
the Petros visited *one.M* good.M doctor  
‘Petros visited a good male doctor.’

(2b) O the Petros episkefthike *mia* *kali* *jatro*.  
the Petros visited *one.F* good.F doctor  
‘Petros visited a good female doctor.’

Although gender specification is not morphologically visible on the nouns themselves (and we will eventually analyze them as semantically gender-neutral), we include epicene nouns as cases of natural gender, as the choice of the gender in the syntax, as reflected on agreement, has semantic consequences.

The main focus of the present paper is the interpretation of nouns like *adherfos-adherfi* and *jatros*, which are specified for natural gender. In particular, we closely examine Merchant’s (2014) data and analysis of nominal ellipsis involving such gendered nouns. He makes the following two claims:

(i) There are three classes of masculine-feminine noun pairs that differ in whether nominal ellipsis involving gender mismatch is possible.
(ii) Nominal ellipsis with gender mismatch is only attested in predicative positions and never in argument positions.

We take issue with both of these claims. Our qualms about (i) are relatively minor. It appears that his primary data are hard to replicate. However, we will present novel sets of data from focus constrictions that demonstrate that Greek indeed has three classes of morphologically related masculine-feminine noun pairs. As for (ii), we argue that it is empirically inaccurate and observe that nominal ellipsis with gender mismatch is in fact possible in argument positions in Greek. This is problematic for the analysis Merchant develops, as it is tailored to derive the putative predicative vs. argument asymmetry. Furthermore, we argue that this analysis does not straightforwardly explain our observations about gendered nouns in focus constructions.

Instead, we put forward an alternative account of the three classes of gendered nouns, building on the idea that there are two ways in which nouns can be associated with natural gender inferences, namely, (a) via lexical specification, and (b) via competition with the opposite gender (gender competition). In particular, in order to account for the behavior of gendered nouns in focus constructions, we propose that lexical specification of gender involves gender inference in the assertive meaning of the noun (as well as in the presupposition).

The organization of the present paper is as follows. We will review Merchant’s (2014) generalizations and supporting evidence in Section 2 and Section 3, and raise some additional data. We will critically examine his theory against our new observations in Section 4, and then we will propose a new alternative analysis in Section 5. We will conclude and discuss further issues in Section 6.

2 Three Classes of Gendered Nouns

2.1 Merchant’s Data of Nominal Ellipsis

Merchant (2014) claims that human-denoting masculine-feminine noun pairs in Greek are classified into three groups according to whether nominal ellipsis with gender mismatch is possible (see Bobaljik & Zocca 2011 for essentially the same observation in other languages, primarily Brazilian Portuguese). More concretely, based on data from predicative uses of relevant nouns, he puts forward the following classification:

- For Class I nouns like ἀδήρφος ‘brother’ vs. ἀδήρφι ‘sister’, nominal ellipsis with mismatching genders is unacceptable with a masculine or feminine antecedent;
- Epicene nouns like ἴατρος ‘doctor’, which constitute Class II, allow for nominal ellipsis with gender mismatches with a masculine or feminine antecedent;
- For Class III nouns like δάσκαλος vs. δάσκαλα ‘teacher’, nominal ellipsis with gender mismatches is grammatical when the antecedent is masculine but not when the antecedent is feminine.

Relevant examples are reproduced below from Merchant (2014) (his (9), (22) and (25), respectively). In these examples, the intended gender of the elided noun is visible on the determiner (D) and adjective (A). The supposed elided phrases are indicated throughout the paper as ELLIPSIS (although as we will see in Section 4, Merchant claims that these cases involve a proform, rather than deletion). The judgments are as reported in Merchant (2014).

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4The acceptable sentences below seem to be somewhat degraded in comparison to corresponding examples with
(3) a. *O Petros ine kalos **adhelfos**, ala i Maria ine mia **kakia** (**adhelfi**). the Petros is **good.M** brother.M but the Maria is **a.fem bad.fem** (sister) (intended) ‘Petros is a good brother, but Maria is a bad (sister).’

b. *I Maria ine kali **adhelfi**, ala o Petros ine enas kakos **adhelfos**. the Maria is **good.f** sister.F but the Petros is **a.m bad.m** (brother) (intended) ‘Maria is a good sister, but Petros is a bad (brother).’

(4) a. O Petros ine kalos **jatros**, ala i Maria ine mia **kakia** (**jatros**). the Petros is **good.m** doctor but the Maria is **a.F bad.F** (doctor) ‘Petros is a good doctor, but Maria is a bad one.’

b. I Maria ine kali **jatros**, ala o Petros ine enas kakos (**jatros**). the Maria is **good.f** doctor but the Petros is **a.m bad.m** (doctor) ‘Maria is a good doctor, but Petros is a bad one.’

(5) a. O Petros ine kalos **dhaskalos**, ala i Maria ine mia **kakia** (**dhaskala**). the Petros is **good.m** teacher.M but the Maria is **a.F bad.F** (teacher.F) ‘Petros is a good teacher, but Maria is a bad one.’

b. *I Maria ine kali **dhaskala**, ala o Petros ine enas kakos **dhaskalos**. the Maria is **good.f** teacher.F but the Petros is **a.m bad.m** (teacher.m) (intended) ‘Maria is a good teacher, but Petros is a bad one.’

Noting potential inter-speaker variation (see also Bobaljik & Zocca 2011 for a related remark about Brazilian Portuguese), Merchant (2014) lists the following nouns as examples of the three classes.

(6) Class I

<table>
<thead>
<tr>
<th>Greek</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>kirios</td>
<td>‘gentleman’</td>
</tr>
<tr>
<td>antras</td>
<td>‘man, husband’</td>
</tr>
<tr>
<td>ksdherfos</td>
<td>‘male cousin’</td>
</tr>
<tr>
<td>engonos</td>
<td>‘nephew’</td>
</tr>
<tr>
<td>vaftistikos</td>
<td>‘godson’</td>
</tr>
<tr>
<td>prinkipas</td>
<td>‘prince’</td>
</tr>
<tr>
<td>vasilias</td>
<td>‘king’</td>
</tr>
<tr>
<td>aftokratoras</td>
<td>‘emperor’</td>
</tr>
<tr>
<td>kiria</td>
<td>‘lady’</td>
</tr>
<tr>
<td>jineka</td>
<td>‘woman, wife’</td>
</tr>
<tr>
<td>ksdherfi</td>
<td>‘female cousin’</td>
</tr>
<tr>
<td>engoni</td>
<td>‘niece’</td>
</tr>
<tr>
<td>vaftistikia</td>
<td>‘goddaughter’</td>
</tr>
<tr>
<td>prinkipissa</td>
<td>‘princess’</td>
</tr>
<tr>
<td>vasilissa</td>
<td>‘queen’</td>
</tr>
<tr>
<td>aftokratira</td>
<td>‘empress’</td>
</tr>
</tbody>
</table>

(7) Class II

<table>
<thead>
<tr>
<th>Greek</th>
<th>English</th>
</tr>
</thead>
</table>

(8) Class III

matching gender (relevant examples are not included here, but see (11) in Merchant 2014, for example). But the same contrast persists even without nominal ellipsis, suggesting that it is due to an extra factor. Since this subtle difference is not of our main concern, it is left unmarked here.
We would like to point out, however, that the judgments of these sentences do not seem to be as clean as reported in Merchant (2014). Upon finding some variability among speakers, we closely consulted 8 native speakers of Greek, and also conducted an informal questionnaire with 16 native speaker linguists, but failed to reliably replicate the above patterns. In particular, while the judgments about Class I and Class II nouns seem to be clear and replicable to some extent, the asymmetry between the masculine and feminine antecedents with Class III nouns was not constantly found, and for many of our consultants, even when there is a contrast, it does not seem to be very prominent. Furthermore, as noted above, there seems to be inter-speaker variation as to which nouns belong to Class I or Class III, and we found no pair of masculine-feminine nouns that showed a reliable asymmetric pattern that persisted across speakers.

Part of the reason why we failed to replicate these results might be due to the fact that none of the sentences above are perfectly natural, which is largely due to the presence of an indefinite article only in the second conjunct, a factor Merchant himself acknowledges as a potential confound. He explains that the indefinite article is included in these and other examples in his paper, despite the somewhat degraded status, because without it the second sentence would preferentially receive a predicative adjectival reading (which is akin to ‘Mary is bad’, rather than ‘Mary is a bad one’) and would not involve nominal ellipsis. Also, adding an indefinite article in the first sentence would result in an identity reading (similar in meaning to ‘Petros is one brother/doctor/teacher’), rather than the intended predicational reading, and is also somewhat unnatural.

So we suspect that the unnaturalness of the examples contributed to our failing to replicate the judgments he reports, but at the same time, we have reasons to think that that does not explain everything. Specifically, we will see in Section 3 that nominal ellipsis is possible in argument position as well, contrary to Merchant’s claim, where we do not have analogous concerns about unnaturalness. Nonetheless, we failed to find a pair of gendered nouns that exhibited a reliable contrast between masculine and feminine antecedents even with such sentences.

For these reasons, we think Merchant’s (2014) data involving nominal ellipsis do not constitute conclusive evidence for his classification of gendered nouns. This of course does not mean that his claim about the three classes of gendered nouns needs to be rejected, as there are several possible reasons for our failure to replicate his results. Also, Bobaljik & Zocca 2011 present similar patterns in other languages, which suggests that what Merchant observed had some truth to it. While we are unable to pin down the exact reasons why the data turned out to be not as clear as we expected, we will point out below that there are other examples that show essentially the same classification of gendered nouns in Greek that receive relatively stable judgments among the 16 speakers we consulted.
2.2 Focus Constructions

To show that there are indeed three classes of gendered nouns in Greek, we will make use of focus constructions. Focus constructions involve reference to alternatives, and depending on the gendered noun, the alternatives might or might not have to refer to the gender inference. Consider first the following examples involving Class I nouns, adherfos and adherfi, and observe that they lack inferences about the opposite gender.

(9) a. Mono o the Petros is a brother of Janis:’
     only the Petros is a sibling.M the.gen Janis.gen
     ‘Only Petros is a brother of Janis’.
     \[\Rightarrow\] Maria is not Janis’s sister.

b. Mono i Maria is a sister of Janis.’
     only the Maria is a sibling.F the.gen Janis.gen
     ‘Only Maria is a sister of Janis’.
     \[\Rightarrow\] Petros is not Janis’s brother.

This can be understood as a case where the focus alternatives must involve the gender inference. That is, mono ‘only’ negates the focus alternatives, and they all look like ‘x is Janis’s male sibling’ and ‘x is Janis’s female sibling’, respectively, and thus there is no inferences about the opposite gender.

On the other hand, Class II nouns do give rise to inferences about the opposite gender in the same construction.

(10) a. Mono o the Petros is a good doctor.
     only the Petros is a good.M doctor
     ‘Only Petros is a good doctor.’
     \[\Rightarrow\] Maria is not a good doctor.

b. Mono i Maria is a good doctor.
     only the Maria is a good.F doctor
     ‘Only Maria is a good doctor.’
     \[\Rightarrow\] Petros is not a good doctor.

Here the focus alternatives are oblivious to the gender information, and consequently alternatives like ‘Maria/Petros is a good doctor’ are negated, regardless of the gender marking in the sentence.

Crucially, we observe an asymmetry with Class III nouns like dhaskalos-dhaskala where the masculine gives rise to an inference about female individuals, while the feminine does not give rise to an inference about male individuals.

(11) a. Mono o the Petros is a teacher.M
     only the Petros is a teacher.M
     ‘Only Petros is a teacher.’
     \[\Rightarrow\] Maria is not a teacher.

b. Mono i Maria is a teacher.F
    only the Maria is a teacher.F
    ‘Only Maria is a teacher.’
    \[\Rightarrow\] Petros is not a teacher.

Other focus constructions point to the same conclusions, including superlatives, ordinals and nominal only. In order to save space, we will only present data involving superlatives here. In the superlative construction of the form the best N, Class I nouns give rise to readings that only compare individuals with the same gender.

(12) a. The Petro is the best.M sibling.M the.gen Janis.gen
     ‘Petros is the best brother of Janis’ (among Janis’ brothers).’
b. I Maria ine i kaliteri adherfi tu Jani.
   the Maria is the.F best.F sibling.F the.GEN Janis.GEN
   ‘Maria is the best sister of Janis’ (among Janis’ sisters).’

On the other hand, Class II nouns give rise to readings where the comparison is across individuals of both genders.

(13) a. O Petros ine o kaliteros jatros.
    the Petros is the.M best.M doctor
    ‘Petros is the best doctor (among the male and female doctors).’

b. I Maria ine i kaliteri jatros.
    the Maria is the.F best.F doctor
    ‘Maria is the best doctor (among the male and female doctors).’

With Class III nouns, we observe a crucial asymmetry such that the masculine nouns give rise to a reading with gender-neutral comparison like Class II nouns, and the feminine noun gives rise to a reading with gendered comparison like Class I nouns.

(14) a. O Petros ine o kaliteros dhaskalos.
    the Petros is the.M best.M teacher.M
    ‘Petros is the best teacher (among the male and female teachers).’

b. I Maria ine i kaliteri dhaskala.
    the Maria is the.F best.F teacher.F
    ‘Maria is the best teacher (among the female teachers).’

These are consistent with the patterns we observed with mono ‘only’ above.

Using these tests, we can identify essentially the same three classes of gendered nouns in Greek that Merchant (2014) talks about. It seems to us that our diagnostics with focus constructions are more reliable and yield results that are more consistent across speakers, although, as we remarked above, the reason why the ellipsis data are not so clear remains a mystery for now. Furthermore, these data involving focus constructions not only show the same empirical point as Merchant (2014) but also pose a challenge for his theory, as we will discuss in Section 4.

3 The Putative Predicate vs. Argument Asymmetry

In addition to identifying the three classes of masculine-feminine noun pairs, Merchant (2014) claims that nominal ellipsis with gender mismatch is only attested in predicative positions and not in argument positions. We will show in this section that this generalization is not empirically warranted.

Merchant’s claim about the unavailability of nominal ellipsis with gender mismatches in argument positions in Greek is based on the following examples (adapted from his (10), (23), and (26)). All of them are unacceptable.

(15) a. *O Petros exi enan adherfo stin Veria, ala dhen exi mia a adherfi stin
    the Petros has a.M brother in.the Veria but not has one.F (sister) in.the
    Katerini.
    Katerini
    (intended) ‘Petros has a brother in Veria, but he doesn’t have one (sister) in
b. *O Πέτρος έχει μια αδερφή στην Βερία, αλλά δεν έχει μια αδερφή στην Κατερίνη.

(16) a. *O Πέτρος έχει έναν γιατρό στην Βερία, αλλά δεν έχει έναν γιατρό στην Κατερίνη.

b. *O Πέτρος έχει μια γιατρό στην Βερία, αλλά δεν έχει μια γιατρό στην Κατερίνη.

(17) a. *O Πέτρος έχει έναν δασκάλο στην Βερία, αλλά δεν έχει έναν δασκάλο στην Κατερίνη.

b. *O Πέτρος έχει μια δασκάλα στην Βερία, αλλά δεν έχει μια δασκάλα στην Κατερίνη.

Importantly, when the nouns are of the same gender, the judgments improve, as shown by the following examples (adapted from Merchant’s (12), (13), (32), (33), and (34)).

(18) a. O Πέτρος έχει έναν αδερφό στην Βερία, αλλά δεν έχει έναν αδερφό στην Κατερίνη.

b. O Πέτρος έχει μια αδερφή στην Βερία, αλλά δεν έχει μια αδερφή στην Κατερίνη.

(19) a. O Πέτρος έχει μια καλή αδερφή στην Βερία, αλλά δεν έχει μια καλή αδερφή στην Κατερίνη.
‘Petros has a good brother but he doesn’t have a bad one (brother).’

b. *O Petros exi mia kali adherfi, ala dhen exi mia kakia adherfi.
the Petros has a.F good.F sister, but not has one.F bad.F (sister)
‘Petros has a good sister but he doesn’t have a bad one (sister).’

These data led Merchant to conclude that ellipsis with gender mismatches is unavailable across the board, if the relevant noun is in an argument position.

Contrary to Merchant, we argue that the examples with gender mismatches in (15)–(17) are unacceptable for reasons independent of nominal ellipsis.

That their unacceptability has little to do with nominal ellipsis can be shown by the fact that the non-elliptical versions of the sentences are in fact all unacceptable, as shown below.5

(20) a. *O Petros exi enan adherfo stin Veria, ala dhen exi mia adherfi stin
the Petros has a.M brother in.the Veria but not has one.F sister in.the
Katerini.
Katerini
(intended) ‘Petros has a brother in Veria, but he doesn’t have a sister in Katerini.’

b. *O Petros exi mia adherfi stin Veria, ala dhen exi enan adherfo stin
the Petros has a.F sister in.the Veria but not has one.M brother in.the
Katerini.
Katerini
(intended) ‘Petros has a sister in Veria, but he doesn’t have a sister in Katerini.’

(21) a. *O Petros exi enan jatro stin Veria, ala dhen exi mia jatro stin
the Petros has a.M doctor in.the Veria but not has one.F doctor in.the
Katerini.
Katerini
(intended) ‘Petros has a male doctor in Veria, but he doesn’t have a female doctor
in Katerini.’

b. *O Petros exi mia jatro stin Veria, ala dhen exi enan jatro stin Katerini.
the Petros has a.F doctor in.the Veria but not has one.M doctor in.the Katerini
(intended) ‘Petros has a female doctor in Veria, but he doesn’t have a male doctor
in Katerini.’

(22) a. *O Petros exi enan dhaskalo stin Veria, ala dhen exi mia dhaskala stin
the Petros has a.M teacher.M in.the Veria but not has one.F teacher.F in.the
Katerini.
Katerini
(intended) ‘Petros has a male teacher in Veria, but he doesn’t have a female teacher
in Katerini.’

b. *O Petros exi mia dhaskala stin Veria, ala dhen exi enan dhaskalo stin
the Petros has a.F teacher.F in.the Veria but not has one.M teacher.M in.the
Katerini.
Katerini
(intended) ‘Petros has a female teacher in Veria, but he doesn’t have a male teacher
in Katerini.’

5Merchant (2014) presents the same sentences as acceptable (his (32)–(34)), but we could not replicate these results
with our informants, for whom the following sentences are as unacceptable as their elliptical counterparts.
There seem to be two problems with these sentences. Firstly, under the scope of clause-mate negation, as in the second conjuncts of these sentences, the use of the negative concord indefinite determiners, *kenan* and *kamia*, instead of plain indefinite determiners, *enan* and *mia*, is almost obligatory. Changing the determiners does not make the sentences fully acceptable, however. Rather, making the second conjunct positive does, as demonstrated by (23)–(25).6

(23) a. O Petros exi *enan* adherfo stin Veria, ke exi mia adherfi stin Katerini. the Petros has a.m brother in the Veria and has one.f sister in the Katerini ‘Petros has a brother in Veria, and he has a sister in Katerini.’
   b. O Petros exi mia adherfi stin Veria, ke exi *enan* adherfo stin Katerini. the Petros has a.f sister in the Veria and has one.m brother in the Katerini ‘Petros has a sister in Veria, and he has a sister in Katerini.’

(24) a. O Petros exi *enan* jatro stin Veria, ke exi mia jatro stin Katerini. the Petros has a.m doctor in the Veria and has one.f doctor in the Katerini ‘Petros has a male doctor in Veria, and he has a female doctor in Katerini.’
   b. O Petros exi mia jatro stin Veria, ke exi *enan* jatro stin Katerini. the Petros has a.f doctor in the Veria and has one.m doctor in the Katerini ‘Petros has a female doctor in Veria, and he has a male doctor in Katerini.’

(25) a. O Petros exi *enan* dhaskalo stin Veria, ke exi mia dhaskala stin the Petros has a.m teacher.m in the Veria and has one.f teacher.f in the Katerini. Katerini ‘Petros has a male teacher in Veria, and he has a female teacher in Katerini.’
   b. O Petros exi mia dhaskala stin Veria, ke exi *enan* dhaskalo stin the Petros has a.f teacher.f in the Veria and has one.m teacher.m in the Katerini. Katerini ‘Petros has a female teacher in Veria, and he has a male teacher in Katerini.’

In these contexts, nominal ellipsis with gender mismatches is actually possible. Specifically, Class I nouns are generally judged unacceptable under ellipsis with gender mismatches, as in the case of predicable nominals, but Class II nouns are acceptable.

(26) a. *O* Petros exi *enan* adherfo stin Veria, ke exi mia ‘adherfi’ stin Katerini. the Petros has a.m brother in the Veria and has one.f (sister) in the Katerini (intended) ‘Petros has a brother in Veria, and he has a sister in Katerini.’
   b. *O* Petros exi mia adherfi stin Veria, ke exi *enan* adherfo stin Katerini. the Petros has a.f sister in the Veria and has one.m (brother) in the Katerini (intended) ‘Petros has a sister in Veria, and he has a sister in Katerini.’

(27) a. O Petros exi *enan* jatro stin Veria, ke exi mia ‘jatro’ stin Katerini. the Petros has a.m doctor in the Veria and has one.f (doctor) in the Katerini ‘Petros has a male doctor in Veria, and he has a female doctor in Katerini.’
   b. O Petros exi mia jatro stin Veria, ke exi *enan* jatro stin Katerini. the Petros has a.f doctor in the Veria and has one.m (doctor) in the Katerini ‘Petros has a female doctor in Veria, and he has a male doctor in Katerini.’

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6Two anonymous reviewers for *Natural Language and Linguistic Theory* independently pointed out to us that adding an additive particle *ke* before the indefinite article further increases the acceptability of these examples.
As the status of Class III nouns in this grammatical context is not very clear or stable across speakers, as in the case of predicative nominals, we will not report their judgments here. But importantly, examples involving Class II nouns like (27), which receive stable judgments, demonstrate that nominal ellipsis with gender mismatches in argument positions is actually possible, contrary to Merchant’s (2014) claim.

Then, what makes Merchant’s original data unacceptable? We argue that the culprit is the information structural properties of the examples that are naturally enforced by the polarity difference of the two conjuncts and the use of *ala* ‘but’. In order to understand this, take the following examples with matching genders and without ellipsis. We use the negative concord determiners in these examples, as they sound significantly more natural in negative contexts.

(28) a. O Petros exi enan jatro stin Veria, ala dhén exi kanenan jatro stin the Petros has a.m doctor in.the Veria but not has no.m doctor in.the Katerini.
   Katerini
   ‘Petros has a male doctor in Veria, but he doesn’t have a doctor in Katerini.’

b. O Petros exi mia jatro stin Veria, ala dhén exi kamia jatro stin
   the Petros has a.f doctor in.the Veria but not has no.f doctor in.the Katerini.
   Katerini
   ‘Petros has a female doctor in Veria, but he doesn’t have a female doctor in Katerini.’

We observe that the most natural prosody of these sentences places a contrastive topic intonation on Veria and Katerini, and a focus intonation on enan/mia and kanenan/kamia (cf. Giannakidou & Stavrou 1999). Importantly, such a contrastive intonation is not forced in the positive examples (23)–(25). It is beyond the scope of this paper to explain why the contrastive topic intonation is virtually obligatory in the negative examples but not in the positive examples, but we claim here that this information structural difference is the crucial factor that renders the former examples unacceptable.7

Firstly, a contrastive topic generally yields an ‘exhaustive inference’ that the asserted property (e.g. Petros has a female doctor in (28b)) does not hold for all alternatives of the contrastively topicalised element (e.g. *in Veria* vs. *in Katerini*) (cf. Büring 1997, 2003, to appear).8 For instance, for the first conjunct of the acceptable example (28b) with a matching gender, the generated inference is that Petros has no female doctor in Katerini. This aligns with the assertion of the second conjunct, according to which Petros has no female doctor in Katerini. Similarly, the second conjunct of (28b) generates a contrastive inference that Petros has a female doctor in Veria, which is in line with the assertion in the first conjunct. Consequently the meanings of the two conjuncts align quite well in this case.

The same reasoning applies in (28a), where the two conjuncts match in masculine gender,

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7 An anonymous reviewer for *Natural Language and Linguistic Theory* remarks that (20)–(22) are acceptable to them. We did not replicate their judgments with our informants, but we would like to note that our prediction here is that if different prosodies (perhaps together with certain specific contexts) were available to a speaker, they might alter the essential pragmatic properties of the examples (i.e. their exhaustive inferences) and make them acceptable, and also that ellipsis might play a role in determining which prosodies are available (or more natural). While we leave this as a theoretical possibility here, please see the relevant discussion below.

8 There is one more exhaustive inference to the effect that the focus alternatives of the asserted property do not hold of the contrastive topic, e.g. for the acceptable example in (28a), Petros only has one doctor who is male in Veria, which could be a pragmatic inference. This inference is not crucial here.
with one difference. There is an interpretive asymmetry between masculine and feminine in Greek. Specifically, there are reasons to think that [masculine] is actually semantically gender-neutral in Greek. In (28a), the exhaustive inference of the first conjunct is therefore gender-neutral. That is, it says that Petros has no doctor, male or female, in Katerini, rather than just that Petros has no male doctor in Katerini. Similarly, the second conjunct of (28a) generates an inference that Petros has no doctor, male or female, in Katerini, but he has one in an alternative place, i.e. Veria. Consequently the meanings of the two conjuncts align well in this case too.

Keeping this in mind, observe now that there is a contrast when different genders are involved as in (29), which is identical to Merchant’s original data in all relevant respects. This example is unacceptable with or without nominal ellipsis.

(29) *O Petros exi enan jatro stin Veria, ala dhen exi kamia jatro stin Katerini.

the Petros has a.m. doctor in. the Veria but not has no.f doctor in. the Katerini
(intended) ‘Petros has a male doctor in Veria, but he doesn’t have a female doctor in Katerini.’

We claim that (29) is unacceptable for the following reasons. The feminine feature in the second conjunct gives rise to the inference that Petros has no female doctor in Katerini but he has one in Veria (we will discuss this in more detail in Section 5.1). Notice that the exhaustive inference of the first conjunct says that Petros has no doctor, male or female, in Katerini, but the second sentence only asserts that he has no female doctor, despite the fact that the assertion could be stronger, i.e. that he has no doctors, male or female, in Katerini. It is reasonable to assume that such a sentence causes infelicity, as a similar constraint can be independently observed with examples that do not even involve gendered nouns such as (30).

(30) ??In Veria_{CT}, John has a relative. In Katerini_{CT}, he has no cousin.

As in the Greek example above, the exhaustive inference of the first conjunct here is stronger than what is asserted in the second sentence, and the sentence is infelicitous. Compare this to the following acceptable sentence, where the second sentence asserts something as strong as or stronger than the exhaustive inference of the first conjunct.

(31) In Veria_{CT}, John has a cousin. In Katerini_{CT}, he has no cousin/relative.

This analysis makes one testable prediction: When the noun in the positive sentence is changed to feminine and the noun in the negative sentence changed to masculine, (29) should become as felicitous as (31), because the second sentence will assert something stronger than the exhaustive inference of the first sentence. This prediction is borne out, as shown in (32).9

This example is acceptable with or without ellipsis.

(32) O Petros exi mia jatro stin Veria, ala dhen exi kanenan jatro stin Katerini.

the Petros has a.f doctor in. the Veria but not has no.m doctor in. the Katerini
(intended) ‘Petros has a female doctor in Veria, but he doesn’t have a doctor in Katerini.’

Similarly, the following example without an entailment between the assertions and exhaustive

9In an earlier version of the paper, we reported that (32) was also unacceptable. We rechecked the data with five native speakers. Four of them judged (32) as acceptable and (29) as not, and the one remaining speaker reported a mild contrast in the same direction. We thank an anonymous reviewer for Natural Language and Linguistic Theory for sharing their judgments, as well as pointing out that this data point supports our theory, as explained below.
inferences is perfectly acceptable with or without ellipsis.

(33) O Petros exi enan xazo jatro stin Veria, ala mia ekspipn jatro stin the Petros has a.m stupid.m doctor in.the Veria but a.f smart.f (doctor) in.the Katerini.
Katerini
‘Petros has a stupid doctor in Veria, but a smart female one in Katerini.’

We therefore conclude that the unacceptability of (29) can be attributed to the pragmatics of contrastive topic.\textsuperscript{10}

4 Merchant’s Theory

To summarize the key observations so far, we have presented new evidence for Merchant’s (2014) classification of gendered nouns that involves focus constructions, and counterexamples against his claim about the predicative vs. argument asymmetry. Merchant (2014) puts forward an analysis that derives the putative predicative vs. argument contrast, so it clearly cannot be maintained in its full form. Nonetheless we will closely review how it works here, as the alternative theory we will propose in the next section shares certain insights with his analysis.

One of the key ingredients in Merchant analysis that derives the (false) predicative vs. argument contrast is that there are two separate strategies available in Greek that lead to missing nouns on the surface: (i) PF-Deletion of nP triggered by the ellipsis feature \([E]\); and (ii) a null proform \(e_N\). He also crucially assumes that the PF-Deletion strategy is only available under total identity between the antecedent and the ellipsis site, and therefore is never employed with gender mismatches. The null proform \(e_N\), on the other hand, accounts for such cases.

Specifically, Merchant assumes that gender features in the nominal domain occupy a syntactic position above NPs headed by gendered nouns, as illustrated in (34).

(34)

\[ \begin{array}{c}
\text{nP} \\
\text{NP} \\
\text{N} \\
\text{adherfos} \\
\text{dhaskalos} \\
jatros \\
\text{[masculine]} \\
\end{array} \quad \begin{array}{c}
\text{nP} \\
\text{NP} \\
\text{N} \\
\text{adherfi} \\
\text{dhaskala} \\
jatros \\
\text{[feminine]} \\
\end{array} \]

By assumption, these features have presuppositional meanings, as in (35).

(35) a. \([\text{masculine}] = \lambda P_{et}. \lambda x_e: \text{male}(x). P(x)\)

\textsuperscript{10}We would like to mention here another analytical possibility to account for the infelicity of (29). We observe that the first sentence of (29) tends to be associated with an exhaustive inference that Peter only has one doctor in Veria, who is male. Notice that due to the contrastive topic on \textit{stin Katerini} ‘in Katerini’ in the second sentence, it is associated with the inference that somewhere other than Katerini, he has a female doctor. Since in this mini-discourse the only other salient location is Veria, one could interpret this inference as saying that he has a female doctor in Veria. Then, this contradicts what the first sentence states under the exhaustive inference. Although the relevant readings of the two conjuncts seem to be possible at least for (29) in an out-of-the-blue context, they are not the only interpretive possibilities.
b. \([\text{[feminine]}] = \lambda x_e : \text{female}(x), P(x)\)

Merchant furthermore assumes that some gendered nouns lexically specify gender by gender presuppositions, while others have no gender inferences. More precisely, the denotations of the three classes of gendered nouns look like the following.

(36) Class I
   a. \([\text{adherfo}] = \lambda x_e : \text{male}(x), \text{sibling}(x)\)
   b. \([\text{adherfi}] = \lambda x_e : \text{female}(x), \text{sibling}(x)\)

(37) Class II
   \([\text{jatros}] = \lambda x_e : \text{doctor}(x)\)

(38) Class III
   a. \([\text{dhaskalos}] = \lambda x_e : \text{teacher}(x)\)
   b. \([\text{dhaskala}] = \lambda x_e : \text{female}(x), \text{teacher}(x)\)

With this semantics, Merchant goes on to claim that the difference in gender specification as shown here makes certain gender mismatches ungrammatical. Let us go through the two strategies for nominal ellipsis in turn to see how his analysis works.

Firstly, PF-deletion triggered by \([E]\) accounts for nominal ellipses with matching gender. Merchant assumes that \([E]\) appears on Num and requires total semantic identity between the antecedent nP and elided nP. Concretely, with the following DPs, the second nP (highlighted by a dotted square) can be elided in reference to the completely identical antecedent nP (also in a dotted square).

(39) \[
\begin{array}{c}
\text{DP} \\
\text{enan} \\
\text{(one.M)} \\
\text{Num} \\
\text{[masculine]} \\
\text{N} \\
\text{[jatro]} \\
\text{(doctor)}
\end{array}
\quad
\begin{array}{c}
\text{DP} \\
\text{dhio} \\
\text{(two.M)} \\
\text{Num} \\
\text{[masculine]} \\
\text{N} \\
\text{[jatros]} \\
\text{(doctors)}
\end{array}
\]

With a gender mismatch, however, the presupposition triggered by the gender feature of the elided nominal will disrupt ellipsis licensing, which Merchant assumes to require complete identity, including the presuppositions. Consequently, the PF Deletion strategy cannot be employed when there is a gender mismatch.

On the other hand, the second strategy employing the pro-form \(e_N\) can sometimes be used to give rise to ellipsis with a gender mismatch. Merchant assumes that \(e_N\) is selected for by Num and refers to a contextually salient property denoted by some other noun in the prior discourse.

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11 One might contest this assumption on the grounds that mismatches in gender presuppositions and other presuppositions triggered by \(\varphi\)-features (or ‘\(\varphi\)-presuppositions’ as we call them here) are generally tolerated under ellipsis (Ross 1967, Fiengo & May 1994, Johnson 2014). We will come back to this in Section 4.1 below.
These assumptions are meant to account for the asymmetric licensing with nouns like dhaskalos-dhaskala. The relevant example is repeated here (the judgments are as reported in Merchant 2014).

(5) a. O Petros ine kalos dhaskalos, ala i Maria ine mia kakia dhaskala.
the Petros is good.m teacher.m but the Maria is a.f bad.f (teacher.f)
Petros is a good teacher, but Maria is a bad one.

b. *I Maria ine kali dhaskala, ala o Petros ine enas kakos dhaskalo.
the Maria is good.f teacher.f but the Petros is a.m bad.m (teacher.m)
(intended) ‘Maria is a good teacher, but Petros is a bad one.’

In this example, $e_N$ is resolved to the masculine antecedent dhaskalos ‘teacher’, which crucially has no presupposition of its own, although the gender feature [masculine], which sits above the noun, triggers a gender presupposition. Consequently, resolving $e_N$ to the masculine noun will not cause a semantic problem in the second conjunct, even though the subject there is feminine. By contrast, in the case of (5b), $e_N$ is resolved to the feminine noun dhaskala ‘teacher’, which by assumption has a lexically specified gender, and thus causes a semantic clash with a masculine subject. Hence the asymmetric licensing.

Furthermore, Merchant explains the (im)possibility of nominal ellipsis with gender mismatches for the other two classes of nouns as well. For epicene nouns, nominal ellipsis with gender mismatches is possible in either direction, since these nouns do not have lexically specified presupposition and so $e_N$ in the second conjunction will be compatible with a subject with the opposite gender specification. By contrast, since nouns like adherfos-adherfi have gender presuppositions, nominal ellipsis with gender mismatches always results in semantic anomaly.

Finally, Merchant derives the putative impossibility of nominal ellipsis in argument positions as follows. He assumes that the gender features that appear on D and A in examples like (5a) come from the subject of the predicational sentence, as depicted in the following tree diagram.

(40) i Maria ine
     |   DP
     |   NumP
     |     D
     |     Num
     |     mia (one.f)
     |     AP
     |     A
     |     Num $e_N$
     |     kakia (bad.f)

In argument positions, however, D and A will not be able to obtain $\varphi$-features, which by assumption results in ungrammaticality. Merchant furthermore assumes $e_N$ needs to be in a certain local relation with D for syntactic reasons, and therefore at least D must be present whenever $e_N$ is. As a result, nominal ellipsis with a gender mismatch is never possible in argument positions.

4.1 Assessment

To summarize, the following are crucial ingredients of Merchant’s (2014) proposal.

1. There are two strategies for nominal ellipsis, (i) PF-deletion and (ii) a pro-form $e_N$. 

2. PF-deletion requires total semantic identity, including the presupposition. This bans all cases of deletion involving gender mismatch.

3. The proform $e_N$ needs to be licensed by a local D. When $e_N$ is in argument position, the $\varphi$-features of D will not be valued, which results in ungrammaticality.

4. Some gendered nouns have gender in their lexical semantics (i.e. Class I nouns and Class II feminine nouns), while others don’t.

Given our observation from the previous section that nominal ellipsis with gender mismatches is actually possible in predicative and argument positions, Merchant’s (2014) analysis cannot be retained in its full form. However, there is a very easy fix that makes it compatible with nominal ellipsis with gender mismatches in argument position, namely, simply by dropping 3. above. That is, it could be assumed that $\varphi$-features on determiners and adjectives need not be syntactically licensed and are simply interpreted (or licensed by a $\varphi$-head above the DP; Sauerland 2003; see Section 5.2.2 below for a concrete implementation). With this fix, nominal ellipsis with gender mismatch becomes possible in both predicative and argument positions under his theory.

However, there are other issues. Firstly, we do not think there is now reason to postulate two separate mechanisms for nominal ellipsis in Greek. Rather, we will demonstrate in the next section that all the relevant data can be accounted for just with PF-deletion (we will also discuss and reject the alternative possibility of only using $e_N$ in Section 5.6). Thus, we will drop Merchant’s (2014) assumptions 1. and 3. above.

Notice that in order for this alternative theory to work, we will also have to drop 2. above, according to which deletion requires complete semantic identity, because that is what prevents deletion from applying for gender-mismatching ellipsis. As we will see immediately below, there is actually independent reason to think that ellipsis (and other focus-related constructions) systematically ignore presuppositions triggered by $\varphi$-features (‘$\varphi$-presuppositions) including gender presuppositions. That is to say that ellipsis involving such mismatches in $\varphi$-features, including gender features, are generally licit (Ross 1967, Fiengo & May 1994, Spathas 2010, Johnson 2014). For instance, the following examples involving ellipsis with gender mismatches are all grammatical in English.

(41) a. NP ellipsis:
   Mary’s story about her family is funny, but John’s story of his family is not.

b. VP ellipsis:
   Mary likes her relatives, but John doesn’t like his relatives.

c. TP ellipsis/sluicing:
   Mary remembers when she came to the UK (but not how), while John remembers how he came to the UK (but not when). In other words, Merchant’s assumption 2. can be shown to be problematic on independent grounds.

This leaves us with 4. about the distinction between gendered nouns with and without lexically specified gender. While we adopt this idea to make sense of the three classes of gendered nouns, we also claim that it needs to be revised to account for the data involving focus constructions discussed in Section 2.2. Recall that for Merchant, gender inferences are all presuppositional. However, it is widely observed that focus alternatives are generally oblivious to $\varphi$-presuppositions, including gender presuppositions, just like structures under ellipsis (see
For instance, consider the following examples, under the bound readings of the possessive pronouns.

(42) a. Of all the students, only I did my homework.
    b. Of all the students, only John did his homework.
    c. Of all the students, only Mary did her homework.

Suppose that the relevant students are the speaker, John and Mary. Then, (42a) entails that Mary and John didn’t do their homework, (42b) that the speaker and Mary didn’t do their homework, and (42c) that the speaker and John didn’t do their homework. What is of importance here is that the ϕ-features (person and gender features here) of the bound possessive pronoun seem to have no semantic effects in the focus alternatives. For instance, what is negated in (42c) looks like the following, and the third person and feminine features do not figure here.

(43) a. I did my homework.
    b. John did his homework.

On the other hand, assertions are never ignored. For instance, (44) does not entail that John is not an athlete, but only that John is not a female athlete.

(44) Of all the students, only Mary is a female athlete.

If all gender inferences are presuppositional, the data like (9) and (11), repeated below, will remain puzzling.

(9) a. Mono o Petros ine aderfso tu Jani.
    only the Petros is sibling.m the.gen Janis.gen
    ‘Only Petros is a brother of Janis.’ ⇒ Maria is not Janis’s sister.
    b. Mono i Maria ine aderfpi tu Jani.
    only the Maria is sibling.f the.gen Janis.gen
    ‘Only Maria is a sister of Janis.’ ⇒ Petros is not Janis’s brother.

(11) a. Mono o Petros ine dhaskalos.
    only the Petros is teacher.m
    ‘Only Petros is a teacher.’ ⇒ Maria is not a teacher.
    b. Mono i Maria ine dhaskala.
    only the Maria is teacher.f
    ‘Only Maria is a teacher.’ ⇒ Petros is not a teacher.

That is, the gender inferences in the focus alternatives here should be ignored, and consequently, (9a), (9b) and (11b) are expected to have entailments about the opposite gender as well, just like (11a) (and also (10) with Class II nouns).

In order to account for this, we will claim that Class I nouns like aderfso and aderfpi and Class III feminine nouns like dhaskalos have lexically specified gender inferences in both assertion and presupposition, while Class II nouns like jatros and Class III masculine nouns have no gender

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There is some controversy in the literature regarding the analysis of examples like (42). In particular, one popular analysis says that the ϕ-features on these pronouns are semantically uninterpreted and are morphological reflections of the agreement relation with the binder (Heim 2008, Kratzer 1998, 2009), but there are other ideas as well (Spathas 2010, Jacobson 2012, Sauerland 2013, Sudo 2012, 2014a). For the most part, we can be neutral with respect to this debate, but for certain data points, e.g. (73), the agreement-based theory has nothing to say, as there is nothing that agrees with the gender marking (see Spathas 2010 and Sudo 2012, 2014a for similar arguments against the agreement-based theory).
specifications in either dimensions of meaning. We will raise evidence for this analysis and give a more detailed explanation about how this accounts for the above data in Section 2.2 in the next section.

4.2 Merchant’s Argument from Extraction

Before leaving this section, we would like to discuss Merchant’s (2014) data involving extraction from the ellipsis site, which he raises as support for his postulation of the proform $e_N$. He observes that extraction from the ellipsis site is with a matching gender, but not with a mismatching gender. Here, what is extracted is the genitive phrase, and *dhikigoro* ‘lawyer’ is an epicene noun.

(45) a. Tu Jani, tha dho ton $\text{glossologias}^F$ dhikigoro $t$. Tu Kosta, tha the.gen Janis.gen will see.I the.m stupid.m lawyer $t$. the.gen Kostas, will see.I the.m smart.m (lawyer $t$)
   ‘I’ll see Janis’ stupid (male) lawyer, and I’ll see Kostas’ smart one.’

b. ??Tu Jani, tha dho ton $\text{glossologias}^F$ dhikigoro $t$. Tu Kosta, tha the.gen Janis.gen will see.I the.m stupid.m lawyer $t$. the.gen Kostas, will see.I the.f smart.f (lawyer $t$)
   ‘I’ll see Janis’ stupid male lawyer, and I’ll see Kostas’ smart female one.’

Merchant argues that this observation speaks in favour of his analysis for the following reason. Recall that according to him, gender-matching ellipsis can be derived via PF deletion, while gender-mismatching ellipsis always involves a null pronominal $e_N$. It is then expected that extraction in the latter case should be impossible, given that extraction from a pronominal should be generally banned (cf. Fiengo & May 1994, Schwarz 2000, Johnson 2001, Saab to appear). The above contrast in fact accords well with this prediction.

While the observation seems to be solid, we would like to disagree with the conclusions Merchant draws. Firstly, the unacceptability of (45b) is actually not as grave as one might expect for a violation of the ban on extraction from a pronominal element. In fact, the contrast appears to be comparable to the mere degradation associated with ellipses with gender mismatches across the board. Secondly, we observe that the baseline cases without ellipsis already exhibit

13Merchant’s examples are reproduced in (i) (his (43) and (47)). He marks the second sentence with a *, but as we observe here, the contrast is not as sharp as Merchant’s notation might suggest.

(i) Tis istorias idha ton pulio $[\text{proedhro}^t]$, kai...
the.history.gen I saw the.m old.m [chair.m $t$], and
‘I saw the former chairperson(masc) of the history department, and...

a. tis glossologias tha dho ton kenuria.
the.linguistics.gen fut I see the.m new.m
(lit.) ‘of linguistics, I’ll see the new(masc) (one).’

b. *tis glossologias tha dho tin kenuria.
the.linguistics.gen fut I see the.f new.f
(lit.) ‘of linguistics, I’ll see the new(fem) (one).’

What is extracted here is probably a complement PP, while it is a possessor in (45), but this difference does not seem to matter for judgments.
the same kind of contrast (at least for some speakers): 14

(46) a. Tu Jani, tha dho ton xazo\textsubscript{F} dhikigoro. Tu Kosta, tha dho the\textsubscript{GEN} Janis\textsubscript{GEN} will see.I the.m stupid.m lawyer. the\textsubscript{GEN} Kostas, will see.I ton ekspipno\textsubscript{F} dhikigoro. 
the.m smart.m lawyer
‘I’ll see Janis’ stupid (male) lawyer, and I’ll see Kostas’ smart one.’

b. Tu Jani, tha dho ton xazo\textsubscript{F} dhikigoro. Tu Kosta, tha dho the\textsubscript{GEN} Janis\textsubscript{GEN} will see.I the.m stupid.m lawyer. the\textsubscript{GEN} Kostas, will see.I tin ekspipni\textsubscript{F} dhikigoro. 
the.f smart.f lawyer
‘I’ll see Janis’ stupid male lawyer, and I’ll see Kostas’ smart female one.’

Although we need to leave an analysis of these data for another occasion, they indicate that whatever is responsible for the contrast is not the mechanism of ellipsis, contrary to Merchant (2014). Rather, ellipses with matching genders and non-matching genders seem to show mild contrasts across the board (cf. fn.4). The nature of these contrasts are not very clear to us at this moment, but that they are not very sharp suggests that they are likely to be caused by non-syntactic factors, and given that they are observed with the overt versions of the sentences, they have little to do with ellipsis \textit{per se}. 15

5 An Alternative Analysis

In this section, we will spell out an improved analysis of gendered nouns in Greek and show how it accounts for the examples we have seen above, as well as other relevant data. As discussed above, the only crucial aspect of Merchant’s (2014) theory we are adopting is the distinction between gendered nouns with and without lexically specified gender. Also as mentioned above, to account for their behavior in focus constructions, we propose that lexically specified gender manifests itself as part of the presupposition as well as part of the assertion (cf. Percus 2011). 16

14 Three out of our six informants report a slight improvement for (46b) over (45b), but even for them the contrast is not at all sharp.
15 We furthermore observe that for some (precisely, two out of six) speakers we consulted with, extraction from an indefinite phrase is perfectly acceptable, even with a gender-mismatch ellipsis.

(i) a. Tu Jani, tha dho ton xazo\textsubscript{F} dhikigoro. Tu Kosta, tha dho enan ekspipno\textsubscript{F} dhikigoro. the\textsubscript{GEN} Janis\textsubscript{GEN} will see.I the.m stupid. lawyer. the\textsubscript{GEN} Kostas, will see.I a.m smart.m dhikigoro. lawyer
‘I’ll see a stupid (male) lawyer of Janis’, and I’ll see a smart one of Kostas’.

b. Tu Jani, tha dho ton xazo\textsubscript{F} dhikigoro. Tu Kosta, tha dho mia ekspipni\textsubscript{F} dhikigoro. the\textsubscript{GEN} Janis\textsubscript{GEN} will see.I the.m stupid. lawyer. the\textsubscript{GEN} Kostas, will see.I a.f smart.f dhikigoro. lawyer
‘I’ll see a stupid male lawyer of Janis’, and I’ll see a smart female one of Kostas’.

Again, we cannot offer an explanation of the definite-indefinite contrast here, but the lack of a contrast in (i) for the relevant speakers indicates that at least for these speakers, extraction from ellipsis with gender mismatches is not impossible, which is problematic for Merchant.
16 Note that this does not necessarily mean that the assertion is redundant, because it’s stronger than the presupposition. Also, other cases of having the same inference in the presupposition and assertion can be found.
Let us look at some concrete examples. We analyze Class I nouns like adherfos and adherfi as having lexically specified gender, which is to say that they have the following denotations,\footnote{For masculine nouns like adherfos ‘male sibling’, the observations in this paper are actually consistent with the analytical possibility that their gender presupposition is also semantically null. However, the infelicity of sentences like (i) suggest that this possibility is not on the right track. That is, (i) is not simply false, and more adequately described as presupposition failure (cf. ‘Mary is not a male sibling of Janis’s’, which is not infelicitous but false).}

\begin{align*}
\text{a. } \llbracket \text{adherfos} \rrbracket &= \lambda x_e : \text{male}(x). \text{male}(x) \land \text{sibling}(x) \\
\text{b. } \llbracket \text{adherfi} \rrbracket &= \lambda x_e : \text{female}(x). \text{female}(x) \land \text{sibling}(x)
\end{align*}

For Class II nouns, the epicene nouns, we adopt Merchant’s (2014) idea that they have no lexical specification for gender.

\begin{align*}
\llbracket \text{jatros} \rrbracket &= \lambda x_e. \text{doctor}(x)
\end{align*}

The masculine and feminine nouns in Class III are, on the other hand, not symmetric, and their denotations look like (49).

\begin{align*}
\text{a. } \llbracket \text{dhaskalos} \rrbracket &= \lambda x_e. \text{teacher}(x) \\
\text{b. } \llbracket \text{dhaskala} \rrbracket &= \lambda x_e : \text{female}(x). \text{female}(x) \land \text{teacher}(x)
\end{align*}

This looks very close to Merchant’s (2014) analysis but we will not show that by combining it with the idea of semantic markedness and gender competition, we can make sense of our observations about focus constructions.

\section*{5.1 Unmarked Gender and Gender Competition}

For Merchant’s (2014), [masculine] and [feminine] are symmetric at least in the semantics in the sense that both features give rise to gender presuppositions. However, since Roman Jakobson’s seminal work, it is well recognized that genders in natural languages are often not equal. And as far as human-denoting nouns in Greek are concerned, [masculine] is less marked than [feminine] in the semantic sense, i.e. [masculine] can often be used in a gender-neutral manner as an ‘elsewhere gender’, so to speak (see Spatagas 2010 for Greek and Corbett 1991, Bobaljik & Zocca 2011, Heim 2008, Kramer 2015, Percus 2006, 2011, Sauerland 2008b for other languages).\footnote{Jakobson’s notion of ‘unmarked gender’, which has been used by many subsequent authors (cf. Bobaljik & Zocca 2011, Kramer 2015), is related but not exactly the same as the notion of semantic unmarkedness, which is what we are after here. In Greek, semantic markedness does not seem to correlate necessarily with morphological markedness. We thank an anonymous reviewer for 	extit{Natural Language and Linguistic Theory} for drawing our attention to Roman Jakobson’s work.} This is most clearly observed with items that have gender inferences in the domain of presupposition, e.g. pronouns.

elsewhere, e.g. 	extit{quit smoking} presupposes that the subject used to smoke and asserts that they used to smoke but do not anymore (Abrusán 2011, Sudo 2012). In fact, theories of presupposition triggering commonly assume that certain parts of the assertive meaning become presuppositions.

Also, by keeping the masculine presupposition in the denotation of adherfos, we can maintain the uniformity of the interpretation of gender features on nouns: if a noun is lexically specified for natural gender, it both presupposes and asserts it, and if not, it is simply unmarked.
There are independent reasons to believe that natural genders (and possibly other interpretable $\varphi$-features) on pronouns are presupposition triggers (Cooper 1983, Heim & Kratzer 1998, Kratzer 1998, 2009, Heim 2008, Jacobson 2012, Sudo 2012). In English, for example, *her* is used to refer to a female individual, and if it is used to refer to a male individual, it gives rise to presupposition failure. More specifically, assuming that pronouns denote variables, Heim & Kratzer (1998) propose the following treatment, based on Cooper (1983) (see Spathas 2010 for Greek pronouns).

\[(50)\] For any index $i$ and assignment $g$,

\begin{enumerate}
  \item $\text{\textquoteleft her}_i$ $\in$ dom($\text{\textquoteleft}$ $\text{\textquoteleft}$) iff $g(i)$ is female.
  \item Whenever $\text{\textquoteleft her}_i$ $\in$ dom($\text{\textquoteleft}$ $\text{\textquoteleft}$), $[\text{\textquoteleft her}_i]_g = g(i)$.
\end{enumerate}

One might be tempted to give a similar analysis to masculine pronouns, but unlike feminine pronouns, masculine pronouns in Greek can be used as gender-neutral pronouns. This asymmetry between masculine and feminine can be observed, for example, when the pronoun is bound by a quantifier with individuals of both genders in the domain of quantification. In such contexts, a masculine pronoun is felicitous but not a feminine pronoun, as shown in (51). Here, the intended reading is one where the pronoun *tu/tis* is bound by the disjunctive subject.

\[(51)\] a. Kapios fititis i kapia fititria evapse to domatio tu.

\hspace{1cm} some.M student.M or some.F student.F painted the room his

\hspace{1cm} ‘Some male student or some female student painted his room.’

b. #Kapios fititis i kapia fititria evapse to domatio tis.

\hspace{1cm} some.M student.M or some.F student.F painted the room her

\hspace{1cm} ‘Some male student or some female student painted her room.’

As we will explain more precisely below, the unacceptability of (51b) shows that feminine pronouns are exclusively used for feminine referents (see the references cited above for similar facts in other languages). We will present below further evidence of the gender-neutrality of masculine in Greek with data involving gender features on determiners and adjectives (namely, (63), (64), (67) and (68); see also Spathas 2010).

In sentences like (51), masculine pronouns behave like gender-neutral pronouns, but in other contexts, they are not completely void of gender inferences. For instance, a free masculine pronoun is typically used to refer to a male individual, and it is simply infelicitous to use it to refer to, say, Hilary Clinton. Concretely, (52) cannot be used to mean ‘I voted for Hilary Clinton’.

\[(52)\] Ton psifisa.

\hspace{1cm} him voted.I

\hspace{1cm} ‘I voted for him.’

Also, the following example is unacceptable under the bound reading of *tu*.

\[(53)\] Kapia fititria evapse to domatio tu.

\hspace{1cm} some.F student.F painted the room his

---

\[19\] We are not committed to a particular analysis of pronouns in the present paper. See Jacobson (2012) for a treatment of gender presuppositions on pronouns in variable-free semantics. It should also be remarked that Cooper (1983) distinguishes the semantic contributions of gender features on free and bound pronouns.

\[20\] The corresponding data in English are more complicated. See discussion in Corbett (1991:Ch.7) and McConnell-Ginet (2011), for example.
‘Some female student painted his room.’

To reconcile these facts with gender-neutral uses, we follow Percus (2006, 2010, 2011) and Sauerland (2008a,b) and assume that [masculine] is actually semantically completely gender-neutral in Greek, but systematically excluded when [feminine] could be used felicitously. In order to make this idea more concrete, we postulate a principle forcing the use of the more specific form of the masculine and feminine pair, whenever possible (cf. Heim 2008, Percus 2006, 2011, Sauerland 2003, 2008a,b),

\[ \text{(54)} \]

\[ \text{The Principle of Gender Competition} \]

If \( S \) and \( S' \) only differ in the form of some gendered item, \( \alpha \) vs. \( \alpha' \), respectively, then, the use of \( S \) in context \( c \) is infelicitous if all of the following are true.

- a. \( \alpha' \) asymmetrically entails \( \alpha \) in the presupposition and/or assertion.\(^{22}\)
- b. The presupposition of \( \alpha' \) is satisfied in \( c \); and
- c. The assertions of \( S \) and \( S' \) are equivalent.

The Principle of Gender Competition accounts for the data in (51) as follows. By assumption, the feminine pronoun \( tis \) presupposes that the referent is female. In (51b), this presupposition makes one of the disjunctive possibilities unable to be true. Generally, a disjunction is only felicitous if all the disjuncts are possibly true (Gazdar 1979). Since this is not the case for (51b), the example is unacceptable. On the other hand, the masculine pronoun in (51a) has no presupposition by assumption. The Principle of Gender Competition says that (51a) is only felicitous in contexts where (51b) is not felicitous. Since (51b) is infelicitous everywhere, (51a) can be used in any context.

In cases where the feminine counterpart could be used felicitously, on the other hand, a masculine pronoun ceases to be gender-neutral, as predicted by the Principle of Gender Competition. Suppose that we know that Hilary Clinton is female. Then, in order to refer to her, the use of a feminine pronoun is forced by the Principle of Gender Competition, and the use of the masculine pronoun is consequently banned, although it is semantically coherent. The example in (53) is explained similarly: In this sentence, the feminine pronoun \( tis \) could be felicitously used instead, which blocks the use of the masculine pronoun \( tu \).

5.2 Technical Remarks

At this point, we would like to digress a bit and remark on some technical details.

5.2.1 Gender Competition and Local Contexts

Firstly, the Principle of Gender Competition is meant to apply at every local level. In order to see this, consider the following examples. The intended interpretation is the one where the possessive pronouns refer to Maria.

\[ \text{(55)} \]

\[ \begin{align*}
\text{a. } & \text{I } \text{Maria evapse to domatio } tu. \\
& \text{the.F Maria painted the room his}
\end{align*} \]

\(^{21}\)The authors cited here, except for Percus (2011), formulate the principle as a general principle about alternative expressions that have presuppositions of different strengths, which is often called \textit{Maximize Presupposition} after Heim (1991). We will discuss in Appendix the possibility that \textit{Maximize Presupposition} is behind gender competition, and present some data preventing us from fully endorsing it. As the data are rather complex (and somewhat inconclusive at this point), we will not discuss \textit{Maximize Presupposition} in the body of the paper, and use the version of the principle that is specific to gender.

\(^{22}\)The relevant notion of entailment here is \textit{generalized entailment}.  

22
b. I Maria evapse to domatio tis.  
the.f Maria painted the room her  
'Maria painted her room.'

At the level of the whole sentence, (55a) has the exact same presupposition and assertion as (55b). That is, although the masculine pronoun tu has no gender presupposition of its own, the subject DP is associated with a natural gender presupposition (which is visible on the feminine definite determiner i; see Section 5.3 for more discussion on determiners). If the Principle of Gender Competition only applied at the sentential level, (55b) would fail to be stronger than (55a), thereby making the application of the principle vacuous.

In order to correctly rule out the example in (55a), we adopt Singh’s (2011) idea and assume that the Principle of Gender Competition is checked at every local context (in the sense of Heim 1982, 1983, Schlenker 2009, among others). We will not technically define local contexts here, as it requires dynamicization of the entire semantic system, which is routine but significantly complicates the exposition; see Singh 2011 for a concrete formulation for a similar principle Maximize Presupposition discussed in Appendix). Yet, the idea should be easy to grasp: (55a) violates the Principle of Gender Competition at levels below the subject, since at these levels (55b) has a stronger presupposition due to the gender presupposition on the possessive pronoun, which is satisfied here.

Similarly, the following examples require local computation of the principle.23

(56) a. *I Maria ine kalos jatros.  
the Maria is good.m doctor  
'Maria is a good doctor.'

b. *I Maria ine dhaskalos.  
the Maria is teacher.m  
'Maria is a teacher.'

Although these examples are semantically coherent, they are made unacceptable due to the felicity of the following alternatives.

(57) a. I Maria ine kali jatros.  
the Maria is good.f doctor  
'Maria is a good doctor.'

b. I Maria ine dhaskala.  
the Maria is teacher.f  
'Maria is a teacher.'

Thus, local computation of the principle is ultimately necessary, but the technical details are omitted here for the sake of brevity.

5.2.2 Gender on Determiners and Adjectives

Secondly, let us clarify our assumptions about other exponents of gender than nouns, such as determiners and adjectives. We could assume one of two things here. One possibility is to analyze their gender features as presuppositional, as in (58) and (59). For expository purposes, let us assume indefinite articles denote existential determiners, and adjectives function as

---

23With some nouns in some languages (e.g. actor in English or moskvič ‘Muscovite’ in Russian), analogous mismatches are tolerated, at least for some speakers (cf. Bobaljik & Zocca 2011). Also, some animal-denoting nouns in Greek have similar properties, which we will discuss in Section 6.
intersective modifiers, but nothing crucial hinges on this. We also ignore number features.24

\[(58)\]
\[
a. \ [\text{enan}] = \lambda x_e . \lambda Q(x) . \exists x (P(x) \land Q(x)) \\
b. \ [\text{mia}] = \lambda x_e . \lambda Q(x) . \forall x (P(x) \rightarrow \text{female}(x)) \land \exists x (P(x) \land Q(x))
\]

\[(59)\]
\[
a. \ [\text{kalos}] = \lambda x_e . \text{good}(x) \\
b. \ [\text{kali}] = \lambda x_e . \text{female}(x) . \text{good}(x)
\]

Another possibility is to assume that there is a semantically interpretable occurrence of the gender feature outside of DP, which syntactically agrees with the uninterpretable occurrences appearing on determiners and adjectives, as suggested by Sauerland (2003, 2008b). This is depicted in the following diagrams, where \([iF]\) is an interpretable occurrence of feature \(F\) and \([uF]\) is an uninterpretable one. The dotted lines indicate syntactic agreement.

\[(60)\]
\[
\begin{array}{c}
\varphi P \\
\varphi \\
\text{DP} \\
\text{[iF]} \\
\text{D} \\
\text{[uF]} \\
\text{enan} \\
\text{[uF]} \\
\text{[uF]} \\
\text{kali} \\
\text{[uF]}
\end{array}
\]

The interpretable gender features have the following semantics:25

\[(61)\]
\[
a. \ [\text{[i masculine]}] = \lambda x_e . x \\
b. \ [\text{[i feminine]}] = \lambda x_e . \text{female}(x) . x
\]

The theoretical choice here is inconsequential for our purposes. It is crucial, however, that determiners and adjectives never express gender inferences in the assertion. This is consistent with both analyses above, but if our analysis of gendered nouns is on the right track, this will entail that not all exponents of gender can be given the same analysis (contra Sauerland 2008b; see also Percus 2011), because according to our analysis of gendered nouns, some of them have gender inferences in their assertive meaning. Why this is so is an interesting question that we cannot answer now, but there is empirical evidence to believe that this is the case, to which we now turn.

5.3 The Semantics of Gendered Nouns

Recall our implementation of Merchant’s (2014) idea about nouns with and without lexically specified genders:

\[(47)\]
\[
a. \ [\text{adherfos}] = \lambda x_e . \text{male}(x) . \text{male}(x) \land \text{sibling}(x) \\
b. \ [\text{adherfi}] = \lambda x_e . \text{female}(x) . \text{female}(x) \land \text{sibling}(x)
\]

\[(48)\]
\[
[\text{jatros}] = \lambda x_e . \text{doctor}(x)
\]

24 The universal presupposition (58b) is probably too strong. See Beaver (2001) and Sudo (2012, 2014b) and references therein for ways to weaken it.

25 Notice that this structure assumes that quantificational DPs always undergo QR to resolve type-mismatch with the gender feature. See Sauerland (2003) for more discussion on this point.
a. \[\text{dhaskalos} = \lambda x_e. \text{teacher}(x)\]

b. \[\text{dhaskala} = \lambda x_e: \text{female}(x). \text{female}(x) \land \text{teacher}(x)\]

We argued above that [masculine] is generally semantically gender-neutral in Greek, but note that we are allowing Class I masculine nouns to have an actual masculine meaning. Consequently, there are two types of masculine nouns in our analysis: semantically masculine nouns like \textit{adhероs} and semantically neutral masculine nouns like \textit{dhaskalos}. Although their semantics is distinct, both types of masculine nouns trigger masculine agreement. Similarly, there are two types of feminine nouns, namely, feminine nouns with lexically specified gender like \textit{adhеfi} and \textit{dhaskali} and feminine nouns that occur with determiners and/or adjectives with feminine specifications.

We will now present two sets of evidence motivating this distinction between gendered nouns with and without lexically specified gender, namely, plural nouns (Section 5.3.1) and negative existential sentences (Section 5.3.2).

5.3.1 Plural Nouns

Our first evidence for the presence/absence of lexically specified gender comes from plural nouns (cf. Corbett 1991, Bobaljik & Zocca 2011). The logic here is as follows. The plural morpheme is standardly analyzed as a distributive operator, which is a kind of universal quantifier (cf. Link 1983, Winter 2000). Specifically, it takes the denotation \(d\) of a singular noun, and turns it to something that applies to any group of individuals each of whom makes \(d\) true. Then it follows that if a singular noun has a lexically specified gender, its plural form will require every member of the group it describes to have that gender, and consequently, it can only be used to describe gender-uniform groups. If a noun has no lexically specified gender, on the other hand, its plural form will say nothing about the gender of the individuals and can therefore be used to describe mixed-gender groups.

Let us go through concrete examples to see that the semantics proposed above are in line with the empirical facts. First, Class I nouns: \textit{adhеfi} ‘sibling.m.pl’ can only describe groups of male siblings, and \textit{adhефес} ‘sibling.f.pl’ groups of female siblings, as demonstrated by (62).

(62) a. #O the Petros ke i Maria ine adhеfi tu Jani.
    the Petros and the Maria are sibling.m.pl the.gen Janis.gen
    ‘*Petros and Maria are brothers of Janis’s.’

b. #O the Petros ke i Maria ine adhефес tu Jani.
    the Maria and the Petros are sibling.f.pl the.gen Janis.gen
    ‘*Petros and Maria are sisters of Janis’s.’

Compare this to Class III nouns like \textit{dhaskalos-dhaskala}: The plural masculine noun \textit{dhaskali} ‘teacher.m.pl’ can describe mixed-gendered groups, while the plural feminine noun \textit{dhaskales}...
‘teacher.f.pl.’ is exclusively used for groups of female teachers.

(63)  

a. O Petros ke i Maria ine dhaskali stin Katerini.  
   the Petros and the Maria are teachers.m in.the Katerini  
   ‘Petros and Maria are teachers in Katerini.’

b. #O Petros ke i Maria ine dhaskales stin Katerini.  
   the Petros and the Maria are teachers.f in.the Katerini

The crucial difference between (62a) and (63a) shows that *adherfos* has a lexically specified gender, while *dhaskalos* is actually gender-neutral.

Plural Class II nouns can also describe mixed gendered groups, but only if the gender on other exponents are masculine, as shown in (64).

(64)  

a. O Petros ke i Maria ine kali jatri.  
   the Petros and the Maria are good.m doctors  
   ‘Petros and Maria are good doctors.’

b. #O Petros ke i Maria ine kales jatri.  
   the Petros and the Maria are good.f doctors

This contrast also makes sense under our assumptions about natural gender on adjectives. The feminine adjective in (64b) indicates the presence of a gender presupposition that all members of the group in question are female. This is not met in this example.

To be complete, it should also be shown that *dhaskali* ‘teacher.m.pl.’ and *kali jatri* ‘good.m doctors’ cannot describe groups of female individuals.

(65)  

a. #I Elena ke i Maria ine dhaskali stin Katerini.  
   the Elena and the Maria are teachers.m in.the Katerini  
   ‘Elena and Maria are teachers in Katerini.’

b. #I Elena ke i Maria ine kali jatri.  
   the Elena and the Maria are good.m doctors  
   ‘Elena and Maria are good doctors.’

This is as expected, given the Principle of Gender Competition. In examples like (65), the feminine counterparts are felicitous and convey stronger meanings. Therefore, the use of the gender-neutral masculine forms are blocked, although they are semantically coherent.

5.3.2 Negative Existential Sentences

Negative existential sentences can be used to make the same point. In such contexts, nouns with lexically specified genders restrict the domain of quantification to be gender-uniform. Since they are in downward entailing contexts, furthermore, this means that they will give rise to weaker entailments. By contrast, nouns without a lexically specified gender will not restrict the domain of quantification, thereby giving rise to stronger inferences.

The following data show that our semantics makes correct predictions. Starting with Class I nouns *adherfos-adherfi*, they restrict the domain of quantification to male and female individuals, respectively. Consequently, there is no inference about the opposite gender.

(66)  

a. O Petros dhen exi kanenan adherfo.  
   the Petros not has no.m sibling.m  
   ‘Petros has no brother.’  

b. Petros has no sister

⇒
b. O Petros dhen exi kamia adherfi. the Petros not has no.F sibling.F ‘Petros has no sister.’

On the other hand, we observe an asymmetry with dhaskalos-dhaska, as in the following examples. In particular, (67a) does entail that Petros has no female teacher in Katerini, unlike (67b), which does not entail that Petros has no male teacher in Katerini.

(67) a. O Petros dhen exi kanenan dhaskalo stin Katerini. the Petros not has no.M teacher.M in.the Katerini ‘Petros has no teacher in Katerini.’ ⇒ Petros has no female teacher in Katerini

b. O Petros dhen exi kamia dhaska stin Katerini. the Petros not has no.F teacher.F in.the Katerini ‘Petros has no female teacher in Katerini.’

⇒ Petros has no male teacher in Katerini

Notice that this observation is compatible with the Principle of Gender Competition. That is, it is satisfied with (67a), whenever (67b) cannot be used, i.e. whenever there is at least one male individual in the domain of quantification.

We observe the same contrast with epicene nouns, as predicted by the proposed semantics where feminine features on determiners and adjectives introduce gender presuppositions, while masculine features on them are semantically empty.

(68) a. O Petros dhen exi kanenan jatro. the Petros not has no.M doctor ‘Petros has no doctor.’

⇒ Petros has no female doctor

b. O Petros dhen exi kamia jatro. the Petros not has no.F doctor ‘Petros has no female doctor.’

⇒ Petros has no male doctor

Thus, these observations point to the conclusion that dhaskalos ‘teacher.M’ and jatros ‘doctor’ have no lexically specified gender, unlike the other nouns in question.

5.4 Gendered Nouns in Focus Constructions

Strictly speaking, the above two phenomena, plural nouns and negative existential constructions, only motivate the distinction between gendered nouns with and without lexically specified gender, and do not constitute evidence for our claim that lexically specified gender manifests itself in the assertive component of meaning. This part of the analysis is actually crucial for accounting for the behavior of gendered nouns in focus constructions, which we saw in Section 2.2.

As mentioned in Section 4.1, it is independently observed that ϕ-presuppositions are generally ignored in focus alternatives, whereas asserted meaning is not. What our analysis entails, then, is that gendered nouns with lexically specified gender, having asserted gender inferences, should require focus alternatives to also have gender inferences, while gendered nouns without lexically specified gender do not require focus alternatives to have the same gender inference. This is exactly what we observed in Section 2.2.

Let us review the crucial data. According to our analysis, Class I nouns all involve lexically specified gender and indeed, there is no entailment about the opposite gender in the following examples.
This is because the gender inferences in the alternatives make the inference trivial when individuals of the opposite gender are subjects in focus alternatives, e.g. that Maria is not Janis’s male sibling is trivially true, and so is that Petros is not Janis’s female sibling.

On the other hand, Class II nouns lack lexically specified gender, and as expected, we do observe entailments about the opposite gender in the following examples.

In these cases the gender inferences are ignored in the alternatives, so the sentences have these entailments.

Finally, for Class III nouns, we observe an asymmetry, as expected.

Data involving other focus constructions can be explained in similar ways.

5.5 Gendered Nouns under Ellipsis

Recall now that we mentioned in Section 4.1 that ellipsis also ignores ϕ-presuppositions, similarly to focus constructions, in the sense that mismatches in ϕ-presuppositions are tolerated. Furthermore, it can be observed that assertive meaning is not ignored in ellipsis, as in (69).

Generally, identity up to ϕ-presuppositions is required across various elliptical phenomena. Our denotations of gendered nouns make the predictions that partially match Merchant’s (2014) data of nominal ellipsis.

That is, Class I nouns like adherfos and adherfi have lexically specified gender and hence assert gender inferences, so gender mismatches should not be tolerated. On the other hand, Class II nouns have no lexically specified gender, so gender inferences are gender presuppositions and gender mismatches should be tolerated. Recall that the judgments of these cases are relatively

clear and we take it that our analysis make good predictions here. The relevant data are repeated from Section 3.

(26)  

the Petros has a.m. brother in.the Veria and has one.f (sister) in.the Katerini  
(intended) ‘Petros has a brother in Veria, and he has a sister in Katerini.’  

b. *O Petros exi mia adherfi stin Veria, ke exi enan adherfo stin Katerini.  
the Petros has a.f sister in.the Veria and has one.m (brother) in.the Katerini  
(intended) ‘Petros has a sister in Veria, and he has a sister in Katerini.’  

(27)  

the Petros has a.m. doctor in.the Veria and has one.f (doctor) in.the Katerini  
‘Petros has a male doctor in Veria, and he has a female doctor in Katerini.’  

b. O Petros exi mia jatro stin Veria, ke exi enan jatro stin Katerini.  
the Petros has a.f. doctor in.the Veria and has one.m (doctor) in.the Katerini  
‘Petros has a female doctor in Veria, and he has a male doctor in Katerini.’  

On the other hand, our analysis does not straightforwardly predict the asymmetric licensing with Class III nouns dhaskalos-dhakala that Merchant (2014) reports. While we failed to replicate such a pattern, it would still be instructive to discuss such data for two reasons. Firstly, our failure to replicate Merchant’s data might be due to some independent factors that we failed to control for. In fact, we have no evidence that directly contradicts the data he reports. Secondly, Bobaljik & Zocca (2011) report similar data in languages like Brazilian Portuguese and we certainly expect our analysis to carry over to these languages.  

The reason why our analysis does not straightforwardly predict the asymmetric licensing is because ellipsis involving asymmetric entailment is generally unacceptable, as shown by (70).

(70)  


According to our analysis the Class III feminine noun dhaskala asymmetrically entails the Class III masculine noun dhaskalos both in the assertion and in the presupposition. Then, it is expected that gender-mismatching ellipsis with Class III nouns should be generally unacceptable, regardless of which one is the antecedent.

One possibility to fix our proposal is to assume that the Principle of Gender Competition does not apply to elided nouns.  

28 According to Bobaljik & Zocca (2011) what is puzzling is the behavior of the counterparts of Greek epicene nouns in Brazilian Portuguese, and the asymmetric licensing with pairs like dhaskalos-dhaskala is expected, given the unmarkedness of masculine in languages like Greek and Brazilian Portuguese. However, as we are claiming here, this is not as simple as they take it to be, given the semantic difference between dhaskalos and dhaskala.  

29 As an anonymous reviewer reminds us, Bobaljik & Zocca (2011) also make an additional assumption about ellipsis to account for similar facts in Brazilian Portuguese. However, they do so in order to account specifically for the counterparts of epicene nouns, rather than the counterparts of dhaskalos-dhaskala. That is, they take the main theoretical problem to be the symmetric licensing for nouns like médico ‘male doctor’ vs. médica ‘female doctor’. Assuming that their gender marking is a morphological reflex of syntactic agreement, they claim that nominal ellipsis with gender mismatches is possible with these nouns, because syntactic agreement is not relevant for ellipsis licensing. Our explanation of the behavior of epicene nouns is similar to this, although for us, the assumption is that ϕ-presuppositions are ignored for the purposes of ellipsis licensing, which is given independent support (and exactly how that should be accounted for is immaterial for our purposes here). Crucially, our claim about ellipsis and the Principle of Gender Competition is qualitatively distinct from Bobaljik & Zocca’s idea.
The ellipses here involve total identity, and the DP with an elided noun has DP-internal gender mismatch. What’s crucial here is the assumption that such mismatch is tolerated, because the Principle of Gender Competition is not active.

Unsurprisingly, the overt counterparts of these sentences are both utterly unacceptable, as in (72).

Katerini
‘Petros visited a male teacher in Veria, and a female teacher in Katerini.’

Katerini
(intended) ‘Petros visited a female teacher of his in Veria, and a male teacher in Katerini.’

In fact, such DP-internal gender mismatches with overt material are generally banned in Greek.\(^30\)

With the tools we have introduced so far, we can explain the unacceptability of the sentences in (72) as follows. Although (72a) is semantically perfectly coherent, due to the gender-neutral denotation of dhaskalos, it is ruled out by the Principle of Gender Competition. The other example, (72b), is ruled out by the same principle, because the feminine determiner mia is available here. But, crucially, notice that there is simply no way that (72b) could receive the intended reading, because dhaskala is false of a male individual, due to its semantic entailment.

Coming back to the elliptical cases, the infelicity of (71b), then, is not at all surprising. The explanation is the same as for (72b). This just cannot mean what it should mean. What is surprising is the felicity of (71a). The minimal difference between (71a) and (72a) is whether the noun is overt, and the reason why (72a) is infelicitous is because of the Principle of Gender Competition. Conversely, if the Principle of Gender Competition is made inactive under ellipsis, the sentence should be acceptable. With this auxiliary assumption, therefore, we could explain the asymmetric licensing that Merchant (2014) reports.

Furthermore, it is crucial here that what is elided in (71a) is a masculine noun dhaskalos, which is assumed to have no lexically encoded gender inference. This makes a prediction that

\(^{30}\)See Corbett (1991), Wechsler & Zlatić (2003), Matushansky (2013), Puškar (2015), among others, for cases in other languages where similar cases of DP-internal mismatch in \(\varphi\)-features are tolerated.
when an elided noun with a feminine determiner occurs in a focus construction, the interpretation should not be restricted to female individuals. Consider, for example, the following examples:

(73) a. I perisoteri apo emas den ehun dhaskalo stin Katerini.
    the more from us not have teacher.m in.the Katerini
    ‘Most of us don’t have a teacher in Katerini.’

    b. Mono i Maria exi mia dhaskalo.
    only the Maria has one.f (teacher.m)
    ‘Only Maria has one.’

The crucial point about (73b) is that it entails that the other relevant people have no teacher, male or female, in Katerini, and, therefore, should be judged false if it turns out that Petros has a male teacher, for example. Furthermore, the following sentence with an overt feminine noun is not judged false in such a scenario.

(74) Mono i Maria exi mia dhaskala stin Katerini.
    only the Maria has one.f teacher.f in.the Katerini
    ‘Only Maria has a female teacher in Katerini.’

A contrast of the same nature should arise with other focus constructions too, e.g. superlatives:

(75) a. Oli ehume dhaskalo stin Katerini, ala i Maria ehi tin kaliteri dhaskalo.
    all have teacher.m in.the Katerini, but the Maria has the.f best.f teacher.m
    ‘We all have a teacher in Katerini, but Maria has the best one.’

    b. Oli ehume dhaskalo stin Katerini, ala i Maria ehi tin kaliteri dhaskala
    all have teacher.m in.the Katerini, but the Maria has the.f best.f teacher.f
    stin Katerini.
    in.the Katerini
    ‘We all have a teacher in Katerini, but Maria has the best female teacher in the
    Katerini.’

(75a), unlike (75b), should entail that Maria’s female teacher is better than anybody else’s teacher, including male teachers. Thus, if Petros has a male teacher and if he turns out to be better than Maria’s, (75a) is judged false, while (75b) stays true.

These data would constitute strong support for our claim that what is elided in (71a) is a masculine noun with gender-neutral meaning, even when other items like determiners are overtly marked as feminine.

However, since the judgments of gender-mismatching ellipsis with Class III nouns are generally not stable with our informants, we could not test these predictions. If the judgments of examples like (71) are stable in languages like Brazilian Portuguese, the above prediction should be testable there. But we have to leave this open for now.

5.6 On the Proform $e_N$

We have proposed an alternative analysis to Merchant’s (2014). With him, we assumed that there are gendered nouns with and without lexically specified gender, but we crucially proposed that lexically specified gender manifests itself in the assertive meaning as well as in the presupposition. We have argued that this new analysis accounts for the behavior of gendered nouns
in focus constructions, and with an auxiliary assumption, it could explain Merchant’s (2014) observation about nominal ellipsis.

We assumed above without argument that the mechanism for nominal ellipsis in Greek is PF-deletion. Recall that Merchant (2014) postulated another mechanism, namely, the proform $e_N$. We could actually account for the main data with $e_N$ instead, for the following reasons.31 Recall that we assumed total identity under ellipsis, in particular total semantic identity. But $e_N$ would also force total semantic identity, because by assumption it has the same denotation as the antecedent noun.

That said, there are several reasons to favor the PF deletion account. Firstly, as we saw in 4.2, extraction from nominal ellipsis site is generally possible, which suggests that the ellipsis site has an internal syntactic structure, and so PF-deletion is at least possible.

Our second argument comes from grammatical gender. Greek has several neuter nouns that refer to humans, e.g. koritsi ‘girl’, melos ‘member’, pedhi ‘child’, agori ‘boy’ (cf. Spathas 2010). As mentioned briefly in fn.3, we treat them as involving grammatical gender (rather than natural gender). As Merchant (2014) observes, ellipsis with gender mismatches is not possible at all with these nouns (for any speaker), as demonstrated by (76) (see also Merchant’s 2014 (71)).

(76) *I Eleni ine ena kalo koritsi, ala i Maria ine mia kakia koritsi.
the Eleni is a.N good.N girl.N, but the Maria is a.F bad.F (girl.N)
(intended) ‘Eleni is a good girl, but Maria is a bad one.’

The unacceptability of (76) does not immediately follow from our analysis above, because the structure of the sentence is essentially identical to cases like (71). Notice also that all the gender presuppositions should be satisfied in this sentence. However, it seems to us that there is an independent constraint that specifically targets grammatical gender and forces DP-internal concord even under ellipsis. This rules out (76), because the second conjunct here involves a grammatically neuter noun but the determiner and adjective in the same DP bear feminine.

Now, if $e_N$ is available, this analysis will be no longer available. Since $e_N$ must be compatible with any gender in principle, it should be able to appear with a determiner and/or adjective carrying a feminine feature, given that nominal ellipsis with gender mismatches is possible with epicene nouns and with dhaskalos-dhaskala when dhaskalos is the antecedent. Moreover, there’s no reason why it cannot refer back to the meaning of koritsi ‘girl’ in (76). Then, (76) is wrongly ruled in. In fact, Merchant (2014) leaves (76) as an open problem that is unaccounted for in his theory. On the other hand, our analysis with PF deletion has at least something to say about this data point, namely, syntax treats natural gender and grammatical gender differently, despite the fact that they can be morphologically conflated. Analyses along these lines have in fact been put forward by some previous studies, such as Alexiadou (2004) and Kramer (2014, 2015), but we will refrain from making an explicit connection here, and leave the issue open for future research.

6 Concluding Remarks

We have closely reviewed Merchant’s (2014) observations and raised some additional data to make two points. First, our data with focus constructions further corroborate his classification of

31See Giannakidou & Stavrou (1999) and Lekakou & Szendrői (2012) for previous studies that employ a null pro-form to account for nominal ellipsis in Greek. See also Lobeck (2006), Saab (to appear) and references therein for various theoretical positions regarding nominal ellipsis in English and other languages.
gendered nouns in Greek. Second, his generalization that nominal ellipsis with gender mismatch is unavailable in argument position is not empirically warranted. We then evaluated his theory in light of our new data and pointed out some assumptions that do not seem to be well motivated. In particular, his theory does not give a straightforward explanation of our observations about focus constructions. Instead, we proposed a new account by cashing out his idea about the distinction between gendered nouns with and without lexically specified gender in a different way. Specifically, we made an attempt to incorporate the idea of unmarked gender and gender competition, and demonstrated how this could account for the key observations. Specifically, we claim that when a noun has a lexically specified gender, it has the gender inference both in the presupposition and assertion, and when a noun doesn’t have a lexically specified gender, it simply has no gender inference anywhere in its denotation.

We would like to clarify what the new contributions are here. As we already remarked, the idea of gender competition in the domain of gendered nouns is not new and core ideas can be found in previous works such as Percus (2011) and Sauerland (2003, 2008b). Percus (2011), in particular, proposes the mechanism of gender competition for Italian nouns, and also claims that feminine nouns in Italian have asserted feminine gender (contrary to Sauerland 2003, 2008b, Merchant 2014 for whom the semantic contributions of gender features are always presuppositional). Unlike us, however, Percus assumes that masculine nouns never have lexically specified gender. We showed evidence to postulate two types of masculine nouns, those with lexically specified gender, e.g. *adherfos* ‘male sibling’, and those without, e.g. *dhaskalos* ‘male teacher’.

Our claim about nouns with asserted gender inferences also has further consequences. It is often assumed that gender features on various exponents have the same semantic contributions (Sauerland 2003, 2008b, Bobaljik & Zocca 2011, Merchant 2014). Our observations point to the conclusion that gender features on nouns sometimes result in asserted inferences, while those on determiners and adjectives never do. However, whether this is indeed the case in other languages is left open for another occasion. In what follows we will mention some other further open questions that emerge from our proposal.

6.1 Syntax

We took our observation to motivate the particular semantic variation we proposed among gendered nouns in Greek but we think it shows little about their syntax. We have been speaking as if gendered nouns are listed in the lexicon as they are, but this is not to exclude the possibility that these nouns are decomposable into smaller components. For instance, it is perfectly compatible with our proposal to assume that *adherfos* decomposes into the root *adherf-* and some functional node (e.g. *n*; see Kramer 2014, 2015) that hosts the gender feature. We remain uncommitted to the internal syntax of the nouns under discussion, especially the exact location of the gender feature, as this is currently an actively debated topic (see Wechsler & Zlatić 2003, 2015).

32 We expect this to be the case across languages. However, an apparent problem comes from nouns like *médico* ‘male doctor’ and *médica* ‘female doctor’ in Brazilian Portuguese. Bobaljik & Zocca (2011) present data that show that they behave like epicene nouns with respect to nominal ellipsis with gender mismatches, while having morphological gender marking on the nouns themselves. However, we can accommodate them by following Bobaljik & Zocca’s (2011) idea that the gender morphology on these nouns is not part of nouns themselves, but something akin to the gender morphology on determiners and adjectives. There are several ways to implement this idea. For instance, they could be agreement reflexes with some other item, or alternatively, they could be realizations of some functional projection carrying a gender presupposition. As Bobaljik & Zocca remark, the fact that the gender endings *-o* and *-a* appear on a number of non-nominal items in Brazilian Portuguese, including determiners and adjectives, is suggestive of an analysis along these lines. If such an analysis is viable, these nouns will not be problematic for our analysis.
Sauerland 2008b, Matushansky 2013, Kramer 2014, 2015, Puškar 2015, Fathi & Lowenstamm 2016 and references therein). Luckily, none of the arguments we make here hinges on a particular theory of it, but it would be interesting to find a morphosyntactic correlate of lexically specified gender vs. non-lexical gender.

6.2 Classification of Gendered Nouns

The above question about the syntax of gendered nouns relates to the next open issue. We have largely put aside the issue of which nouns belong to which class. There are several reasons for this. For one, apart from the robust generalization that all epicene nouns lack lexically specified genders, there does not seem to be other stable morphological or syntactic cues as to which nouns have lexically specified genders and which nouns don’t in Greek (see, however, Bobaljik & Zocca 2011 for the potential relevance of morphology in Brazilian Portuguese and other languages). For instance, *adhēroś* and *dhaskalos* share the suffix *-os*, but their genders do not have the same semantic status. In fact, which nouns belong to Class I vs. Class III seems to be a point of inter-speaker variation (see Bobaljik & Zocca 2011 and Merchant 2014:fn.6 for related remarks).

Furthermore, there does not seem to be a solid semantic predictor, either. As Bobaljik & Zocca (2011) point out for other languages, there seems to be a tendency for kinship terms to belong to Class I, but there are some exceptions to this in Greek (at least for some speakers), e.g. *thiōs-thiā* ‘uncle, aunt’ seems to be in Class III. Thus, the semantics, although arguably relevant, is not the only factor, either (*pace* Bobaljik & Zocca 2011). At the moment, we have nothing insightful to say about this issue.

As mentioned repeatedly, there are other languages that seem to have the same three classes of nouns, e.g. Brazilian Portuguese (Bobaljik & Zocca 2011). It is of particular interest here that the Brazilian Portuguese counterparts of Greek epicene nouns have separate masculine and feminine forms, e.g. *médico* ‘male doctor’ and *médica* ‘female doctor’. What this entails is that there can be masculine-feminine noun pairs where both nouns lack lexically specified genders (at least in the assertion) in some languages, although no such nouns are found in Greek. Bobaljik & Zocca’s data also suggest that class assignment is crosslinguistically variable and is unpredictable from the semantics alone. For instance, *tio-tiā* ‘uncle, aunt’ in Brazilian Portuguese seems to belong to Class I, but the corresponding nouns in Greek belongs to Class III (although the data are potentially muddled by the possibility of inter-speaker variation, as noted above). These issues lead also to important questions concerning the acquisition of nouns and their class assignment, but questions like these are far beyond the purview of the present paper.

Relatedly, there seems to be a gap in the paradigm, as least, in Greek in that there is no masculine-feminine pair that has a lexically specified gender only on the masculine noun (i.e. the opposite of *dhaskalos-dhaskala*). This is likely to be due to the general unmarkedness of masculine relative to feminine in Greek, but nothing in our analysis excludes such a pair. Although we will not try to capture the absence of such pairs of nouns in Greek, we would like to note that there seem to be languages where feminine is less marked than masculine (see Corbett 1991:Ch.7, Kramer 2015:Ch.5), and there might well be pairs with natural gender where the masculine noun has a lexically specified gender and the feminine noun does not (see Percus 2011 for related discussion). Whether this is so is left unanswered here as well.
6.3 Cases with No Gender Competition

We mentioned in fn. 23 the existence of gender-neutral nouns that have gender-specific counterparts but do not seem to compete with them. For instance, for many speakers of contemporary English, *actor* can be used gender-neutrally, although it has a morphologically related feminine form *actress*. Thus, for these speakers, we observe the following pattern of judgments.

(77)  
   a. Mary is an actor.  
   b. Mary is an actress.  
   c. John is an actor.  
   d. #John is an actress.

If the Principle of Gender Competition applied to *actor-actress*, (77a) should be ruled out. Thus, this indicates that *actor* somehow does not compete with *actress*.

In Greek, one can find such nouns in the domain of animal-denoting nouns (although not among human-denoting nouns). For instance, *jata* is grammatically a feminine noun, but commonly used to describe both female and male cats. In addition to this noun, there is a gender-specific noun *jatos*, which is exclusively used for male cats. Concretely, from (78), one cannot infer the gender of the cat that Maria bought, but one can infer that Kostas bought a male cat.

(78)  
   a. I the Maria ajorase mia jata.  
       the Maria bought a.F cat.F  
       ‘Maria bought a cat.’  
   b. O the Kostas ajorase enan jato.  
       the Kostas bought a.M cat.M  
       ‘Kostas bought a male cat.’

Just as in the case of *actor-actress*, if *jata* and *jatos* competed, one should infer from (78a) that Maria bought a female cat. Thus, again, *jata* does not seem to compete with *jatos*.

The immediate question that arises is why these nouns are exempt from gender competition. We would like to suggest here that the gender-neutral member of these pairs has a grammatical gender, and the Principle of Gender Competition does not apply to grammatical gender. Specifically, we analyze *jata* ‘cat.F’ as having grammatical gender, rather than natural gender. In fact, we observe that the *jata-jatos* pair does not allow nominal ellipsis with gender mismatches, just like in the case of *koritsi* ‘girl.N’ in (76).

(79)  
   a. I Maria ajorase mia mavri jata. O Kostas mia aspri jata.  
       the Maria bought a.F black.F cat.F the Kostas a.F white.F (cat.F)  
       ‘Maria bought a black cat. Kostas bought a white one.’  
       the Maria bought a.F black.F cat.F the Kostas a.M white.M (cat.F)

Extending this idea to English, *actor* (for certain speakers) could be analyzed as having grammatical gender. There are, however, some more complications here. In particular, *actor* can bound a feminine pronoun, as in (80).

(80)  
   Only this actor is satisfied with her film career.

One might take this as showing that *actor* has a natural gender. However, as Spathas (2010) observes, gender mismatches in pronominal binding are possible, at least in some languages,
although not in others. As shown in (81), to koritsi ‘the girl’, which is grammatically neuter, can bind a feminine pronoun.

(81) Mono to koritsi vjike apo to spiti tu / tis. only the.N girl.N exited from the house its.N / her.F
   ‘Only the girl left her house.’

Under the bound reading of the pronoun, this entails that other relevant people (e.g. boys) did not leave their houses. Thus, the example in (80) does not convincingly show that the gender on actor is not grammatical gender.

Thus, there is a puzzling contrast between koritsi ‘girl’ and jata ‘cat’. The latter does not allow for gender mismatching pronominal binding.

(82) Mono i jata vjike apo to spiti tis / *tu. only the.F cat.F exited from the house her.F / *his.M
   ‘Only the cat left her house.’

This observation suggests that there is something fundamentally different between grammatical gender on human-denoting nouns and animal-denoting nouns, at least in Greek. We leave this issue open for future research.

Appendix: Maximize Presupposition

In this appendix, we will briefly discuss the nature of the Principle of Gender Competition. Previous studies on the unmarkedness of masculine relative to feminine have made use of the following more general principle, rather than a gender specific principle like ours.

(83) **Maximize Presupposition (MP)**
Sentence $S$ is infelicitous in context $c$ if there is an alternative $S'$ such that
   a. $S$ and $S'$ assert the same thing in the assertion (i.e. they Strawson-entail each other);
   b. $S'$ has a stronger presupposition than $S$; and
   c. the presupposition of $S'$ is satisfied in $c$.

The intuition behind MP is that given two expressions such that they mean the same thing but one has more presuppositions than the other, the one with more presuppositions needs to be used. This makes similar predictions as our principle, but there is one crucial difference. Specifically, MP, as formulated in (83), actually does not explain (84) under our analysis of dhaskalos-dhaskala, because the masculine and feminine forms differ in the assertive meaning. That is, the feminine counterpart, (85), does not assert the same thing as (84).

(84) *I the Maria is dhaskalos.
the Maria is teacher.M

(85) I the Maria is dhaskala.
the Maria is teacher.F
   ‘Maria is a teacher.’

One way to explain this is to omit the first clause of MP. This modification is actually put forward
by Spector & Sudo (2014) on completely independent grounds.\(^{33}\) Let’s call this principle MP* (Spector and Sudo call it the Presupposed Ignorance Principle).

\[(86) \quad \text{Maximize Presupposition}^\star (\text{MP}^\star)
\]
Sentence \(S\) is infelicitous in context \(c\) if there is an alternative \(S'\) such that
\begin{enumerate}
\item \(S'\) has a stronger presupposition than \(S\); and
\item the presupposition of \(S'\) is satisfied in \(c\).
\end{enumerate}

This correctly renders (84) unacceptable in relation to (85). Furthermore, we can incorporate our proposal that competitions do not happen under ellipsis as follows:

\[(87) \quad \text{Maximize Presupposition}!!^\star (\text{MP}^{\star\star})
\]
A sentence \(S\) is infelicitous in context \(c\) if there is an alternative \(S'\) such that
\begin{enumerate}
\item The presuppositions triggered by overt items in \(S'\) are stronger than the presuppositions triggered by overt items in \(S\); and
\item the presuppositions of \(S'\) are satisfied in \(c\).
\end{enumerate}

This could be used to explain our crucial data. However, there are some reasons to be cautious about making this move, as \(\text{MP}^{\star\star}\) makes predictions that are not as straightforward as one might expect.

MP is used to explicate various types of inferences in addition to gender inferences. Let us go through some concrete cases. For instance, a prototypical case of MP involves indefinite vs. definite articles with singular nouns such that the use of an indefinite article generates an inference that the definite counterpart cannot be used, i.e. the uniqueness inference of the definite article would not be met (Heim 1991, 2011). Concretely, suppose that it is commonly known that John’s aeroplane has two engines, and Bill’s has only one (thanks to […], p.c. for discussion on these examples). Then, we have the following contrast.

\[(88) \quad \begin{align*}
\text{a.} & \quad \text{John’s aeroplane lost an engine.} \\
\text{b.} & \quad \text{??Bill’s aeroplane lost an engine.}
\end{align*}
\]

The (mild) infelicity of (88b) is considered to be due to the acceptability of the definite (possessive) phrase, \textit{its engine}. Now observe that with a VP ellipsis, this violation is obviated (again assuming total identity under ellipsis).

\[(89) \quad \text{John’s aeroplane lost an engine. Bill’s aeroplane did } \text{lose an engine, too.}
\]

This is expected under our modification of MP, according to which MP should not apply to elided material. However, a significant confound here is that the overt version of (89) is not at all deviant, unlike (88b).\(^{34}\)

\[(90) \quad \text{John’s aeroplane lost an engine. Bill’s aeroplane lost an engine, too.}
\]

It seems that in cases like (90), considerations about parallelism somehow overrides the competition between indefinites vs. definites, making our predictions impossible to test. Essentially the same considerations apply to other cases that allegedly involve MP, e.g. \textit{both} vs. \textit{all}.

\(^{33}\)To compensate for the omission of the clause, we need proper restrictions on what counts as an alternative to prevent overgeneration. Although such a general theory of alternatives is yet to be developed (see e.g. Katzir 2007, Fox & Katzir 2011, Breheny, Klinedinst, Romoli & Sudo 2018), it is a theoretical possibility that with an appropriate theory of alternatives, the first clause of MP becomes superfluous to begin with.

\(^{34}\)We thank […] (p.c.) for helpful discussion on this point. See also Percus (2010) for related observations.
Notice that such obviation effects are not observed with gender. It is often assumed (e.g. Heim 2008, Percus 2006) that masculine pronouns have no gender presuppositions and compete with feminine pronouns, which do have gender presuppositions. But having a masculine pronoun in a parallel sentence doesn’t make it possible to use a masculine pronoun with a feminine antecedent. More concretely, the second sentence of (91) does not have a bound pronoun interpretation.

(91) John likes his hometown. Mary likes his hometown, too.

If MP is the principle behind all these phenomena, it remains puzzling why such a difference exists between gender inferences and the inferences of determiners.

In addition, there is at least one case that does not behave as expected under MP**. It is considered that think and know constitute a pair that MP operates on, in addition to a vs. the and all vs. both (Percus 2006, Chemla 2008). Specifically, know, but not think, has a factive presupposition, and whenever the factive presupposition is satisfied, the use of think is infelicitous. For example, assuming that John, but not Bill, has been admitted to MIT, we observe the following contrast.

(92) a. #John thinks that he has been admitted to MIT.
   b. Bill thinks that he has been admitted to MIT.

Unlike in the examples above, however, the infelicity of (92a) is not saved by a parallel structure with or without ellipsis.

(93) a. Bill thinks that he has been admitted to MIT.
   #John thinks that he has been admitted to MIT, too.
   b. Bill thinks that he has been admitted to MIT.
   #John does [\(x\) thinks that he has been admitted to MIT, too].

For these reasons, we leave it open whether the Principle of Gender Competition could be reduced to some more general principle like MP.

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