Lecture 3:
Nominal Ellipsis of Gendered Nouns

Yasutada Sudo (UCL)
(based on joint work with Giorgos Spathas)

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Aristotle University of Thessaloniki

Slides are available at:
`http://ucl.ac.uk/~ucjtudo/gender/Lecture3.pdf`

Outline

Review:

(1) a. $\llbracket\text{adherfos}\rrbracket = \lambda x_e\colon \text{male}(x).\ \text{male}(x) \wedge \text{sibling}(x)$
    b. $\llbracket\text{adherfi}\rrbracket = \lambda x_e\colon \text{female}(x).\ \text{female}(x) \wedge \text{sibling}(x)$

(2) a. $\llbracket\text{dhaskalos}\rrbracket = \lambda x_e.\ \text{teacher}(x)$
    b. $\llbracket\text{dhaskala}\rrbracket = \lambda x_e\colon \text{female}(x).\ \text{female}(x) \wedge \text{teacher}(x)$

(3) $\llbracket\text{jatros}\rrbracket = \lambda x_e.\ \text{doctor}(x)$

(4) *The Principle of Gender Competition*
    Suppose S and S' only differ in the form of some gendered item, α
    vs. α', respectively. Then, the use of S in the context c is infelicitous
    if all of the following are true.
    a. α' asymmetrically entails α in the presupposition and/or
       assertion;
    b. The assertions of S and S' are equivalent; and
    c. S' is felicitous.

We'll discuss **nominal ellipsis** in light of this semantics.

Nominal Ellipsis in Greek

Basics

Nominal ellipsis is observed with both predicative and argument nominals in Greek. We focus on argument nominals.

In the absence of mismatching φ-features, nominal ellipsis is generally possible with any noun.

(5) O   Petros episkefthike enan **dhaskalo** sti   Veria, ke
    the Petros visited   one.m teacher.m in.the Veria, and
    enan ~~dhaskalo~~ stin   Katerini.
    one.m (teacher.m) in.the Katerini

    'Petros visited one teacher in Veria, and one in Katerini.'

(6) O   Petros episkefthike enan **jatro** sti   Veria, ke
    the Petros visited   one.m doctor in.the Veria, and
    enan ~~jatro~~ stin   Katerini.
    one.m (doctor) in.the Katerini

    'Petros visited one doctor in Veria, and one in Katerini.'

Number Mismatches

Greek nouns encode number and gender.

Number mismatches are generally tolerated.

(7) a. O   Petros episkefthike enan **dhaskalo**   sti Veria, ke
         the Petros visited   a.m   teacher.m.sg in Veria, and
         dhio ~~dhaskalus~~   stin Katerini.
         two (teacher.m.pl) in   Katerini.

     'Petros visited one teacher in Veria, and two in Katerini.'

   b. O   Petros episkefthike dhio **dhaskalus**   sti Veria, ke
       the Petros visited   two teacher.m.pl in Veria, and
       enan ~~dhaskalo~~   stin Katerini.
       one   (teacher.m.sg) in   Katerini.

     'Petros visited two teachers in Veria, and one in Katerini.'

Gender Mismatches

Gender mismatches are sometimes fine, sometimes not.

Merchant's (2014) observation (see also Bobaljik & Zocca 2011):

	Masc-~~Fem~~	**Fem**-~~Masc~~
aderfos-aderfi	*	*
daskalos-daskala	ok	*
jatros	ok	ok

We argue that this pattern is explained by the semantics together with some auxiliary assumptions about ellipsis licensing.

Let's now go through the main data:

Gender Mismatches: Sibling

(8) *O   Petros episkefthike enan **aderfo**   tu sti   Veria, ke
    the Petros visited   one.m sibling.m his in.the Veria, and
    mia   ~~aderfi~~   stin   Katerini.
    one.f (sibling.f) in.the Katerini

(intended) 'Petros visited a bother of his in Veria, and a
(sister) in Katerini.'

(9) *O   Petros episkefthike mia **aderfi**   tu sti   Veria, ke
    the Petros visited   one.f sibling.f his in.the Veria, and
    enan   ~~aderfo~~   stin   Katerini.
    one.m (sibling.m) in.the Katerini

(intended) 'Petros visited a sister of his in Veria, and a
(brother) in Katerini.'

Gender Mismatches: Doctor

(10) O   Petros episkefthike enan **jatro** sti   Veria, ke
      the Petros visited   one.m doctor in.the Veria, and
      mia ~~jatro~~   stin   Katerini.
      one.f (doctor) in.the Katerini

   'Petros visited a male doctor in Veria, and a female doctor
   in Katerini.'

(11) O   Petros episkefthike mia **jatro** sti   Veria, ke
      the Petros visited   one.f doctor in.the Veria, and
      enan ~~jatro~~   stin   Katerini.
      one.m (doctor) in.the Katerini

   'Petros visited a female doctor of his in Veria, and a male
   doctor in Katerini.'

Gender Mismatches: Teacher

(12)   O   Petros episkefthike enan **dhaskalo** sti   Veria, ke
       the Petros visited   one.m teacher.m in.the Veria, and
       mia   ~~dhaskala~~ stin   Katerini.
       one.f (teacher.f) in.the Katerini

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

(13) *O   Petros episkefthike mia   **dhaskala** sti   Veria, ke
       the Petros visited   one.f teacher.f in.the Veria, and
       enan   ~~dhaskalo~~ stin   Katerini.
       one.m (teacher.m) in.the Katerini

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

Ellipsis Licensing

Ellipsis Licensing

Natural languages have various elliptical constructions: nominal ellipsis, VP ellipsis, sluicing (TP ellipsis), gapping, pseudo-gapping, comparative deletion, etc.

For now I assume that they involve PF-deletion (more discussion on this later).

They generally tolerate certain types of mismatches but not others (Ross 1967, Fiengo & May 1994, Johnson 2014):

- ok with mismatches in φ-presuppositions
  (14) a. Mary **did her homework**. John didn't ~~do his homework~~.
  b. Mary bought five **pictures of herself**. John bought six ~~pictures of himself~~.
- bad with mismatches in assertion
  (15) a. Mary **invited female linguists**. *John didn't ~~invite male linguists~~.
  b. Mary met five **female linguists**. *John met six ~~male linguists~~.

Ellipsis of Gendered Nouns

Recall:

(1) a. $[\![\text{adherfos}]\!] = \lambda x_e\colon \text{male}(x).\ \text{male}(x) \wedge \text{sibling}(x)$
     b. $[\![\text{adherfi}]\!] = \lambda x_e\colon \text{female}(x).\ \text{female}(x) \wedge \text{sibling}(x)$

(3) $[\![\text{jatros}]\!] = \lambda x_e.\ \text{doctor}(x)$

(Natural genders and determiners and adjectives trigger presuppositions)

The behavior of *adherfos-adherfi* and *jatros* in nominal ellipsis is not so surprising.

- *Adherfos* and *adherfi* both assert the gender, so mismatches are impossible in either direction.
- With epicene nouns, there will only be φ-presuppositions on D and A. So nominal ellipsis with gender mismatches is licensed in either direction.

Puzzle: Asymmetric Licensing

However, the asymmetric licensing with *dhaskalos-dhakala* is puzzling.

(16) a. O Petros episkefthike enan **dhaskalo** sti Veria, ke mia ~~dhaskala~~ stin Katerini.

   b. *O Petros episkefthike mia **dhaskala** sti Veria, ke enan ~~dhaskalo~~ stin Katerini.

Recall that the feminine form asymmetrically entails the masculine form.

(2) a. $[\![\text{dhaskalos}]\!] = \lambda x_e. \ \text{teacher}(x)$

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

Ellipsis involving asymmetric licensing is generally banned.

(17) a. John invited three **linguists**. *Bill invited four ~~phonologists~~.

   b. John invited three **phonologists**. *Bill invited four ~~linguists~~.

Towards the Analysis

We propose: **the Principle of Gender Competition does not apply to elided nouns**.

Suppose that nominal ellipsis is always total. Then, without ellipsis, the sentences will look like:

(18)   a. *O Petros episkefthike enan **dhaskalo** sti Veria, ke mia **dhaskalo** stin Katerini.
       b. *O Petros episkefthike mia **dhaskala** sti Veria, ke enan **dhaskala** stin Katerini.

Generally DP-internal gender mismatches result in unacceptability. But why?

Why Unacceptable?

(18b) *O   Petros episkefthike mia **dhaskala** sti   Veria, ke
        the Petros visited   one.f teacher.f in.the Veria, and
        enan **dhaskala** stin   Katerini.
        one.m teacher.f in.the Katerini

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

Recall that *dhaskala* has a lexically encoded gender inference, so
it cannot be used to talk about male individuals. So, (18b) simply
cannot have the intended reading.

(And if you want to mean 'a female teacher in Katerini', you have
to use the feminine determiner *mia* instead, due to the Principle
of Gender Competition.)

Why Unacceptable? (cont.)

(18a) *O   Petros episkefthike enan **dhaskalo** sti   Veria, ke
       the Petros visited   one.m teacher.m in.the Veria, and
       mia **dhaskalo** stin   Katerini.
       one.f teacher.m in.the Katerini

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

Why is (18a) unacceptable? According to our story, this is
because of a violation of the Principle of Gender Competition:
you need to use the feminine noun *dhaskala* here.

Our proposal is that (18a) becomes felicitous with nominal
ellipsis, because the Principle of Gender Competition ignores
elided material.

No Competition under Ellipsis

Analysis of the asymmetric licensing data:

(19) a. O Petros episkefthike enan **dhaskalo** sti Veria, ke mia ~~dhaskalo~~ stin Katerini.
 b.*O Petros episkefthike mia **dhaskala** sti Veria, ke enan ~~dhaskala~~ stin Katerini.

- ‣ (19a) is ruled in, unlike its non-elliptical counterpart, because the Principle of Gender Competition does not apply here.
- ‣ (19b) is still bad, because *daskala* has a lexically encoded gender and cannot denote a male teacher.

It is crucial here that what is elided in (19a) is a masculine noun *dhaskalos*, which has no lexically encoded gender. This makes a prediction.

Interaction with Focus: 'Only'

Prediction: in a focus construction, the interpretation should not be restricted to female individuals.

(20) I   perisoteri apo emas den ehun **dhaskalo** stin
     the more   from us   not have teacher.m in.the
     Katerini.
     Katerini

   'Most of us don't have a teacher in Katerini.'
     Mono i   Maria exi mia ~~dhaskalo~~.
     only the Maria has one.f (teacher.m)

     'Only Maria has one.'
     ⇒ Other people have no teacher, male or female

Compare this to:

(21) 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.'

Interaction with Focus: Superlatives

The same contrast arises with other focus constructions too, e.g. superlatives:

(22) a. Oli ehume **dhaskalo** stin Katerini, ala i Maria ehi
all have teacher.m in.the Katerini, but the Maria has
tin kaliteri ~~dhaskalo~~.
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
all have teacher.m in.the Katerini, but the Maria has
tin kaliteri **dhaskala** stin Katerini.
the.f best.f teacher.f in.the Katerini

'We all have a teacher in Katerini, but Maria has the best female teacher in the Katerini.'

Summary

‣ Ellipsis requires total identity up to φ-presuppositions.
‣ The Principle of Gender Competition does not apply to elided material.

	Masc-Fem	**Fem**-Masc
aderfos-aderfi	*	*
daskalos-daskala	ok	*
jatros	ok	ok

Adherfos-adherfi: both assert the gender, so ellipsis with gender mismatches is impossible.

Jiatros: only φ-presuppositions on D and A, so ellipsis with gender mismatches is possible.

Adherfos-adherfi: ok only with masculine, because it is semantically compatible with feminine D and A.

Grammatical Gender

Neuter nouns that refer to humans, e.g. *koritsi* 'girl', *melos* 'member', *pedhi* 'child', *agori* 'boy', etc.

Merchant (2014) observes that ellipsis with gender mismatches is not possible at all with these nouns:

(23) *I   Eleni ine ena kalo   **koritsi**, ala i   Maria ine mia
     the Eleni is   a.n good.n girl.n,   but the Maria is   a.f
     kakia ~~koritsi~~.
     bad.f (girl.n)

   (intended) 'Eleni is a good girl, but Maria is a bad one.'

There shouldn't be a semantic problem here.

Idea: there is an independent constraint that specifically targets grammatical gender that forces DP-internal concord even under ellipsis.

Some thoughts from yesterday: What about gender invariant nouns?

Animal Nouns

Jata 'cat' is a feminine noun, but commonly used describe both female and male cats.

Jatos is exclusively used for male cats.

(24) a. I   Maria ajorase mia **jata**.
          the Maria bought a.f   cat.f

          'Maria bought a cat.'
      b. O   Kostas ajorase enan **jato**.
          the Kostas bought a.m   cat.m

          'Kostas bought a male cat.'

If *jata* and *jatos* competed, one should infer from (24a) that Maria bought a female cat. Why don't they compete?

Animal Nouns (cont.)

Idea: the feminine form has a grammatical gender, and the Principle of Gender Competition ignores grammatical genders.

If so, we expect nominal ellipsis with gender mismathces to be impossible, just as with *koritsi* 'girl.n'.

(25) a. I   Maria ajorase mia mavri **jata**. O   Kostas mia
           the Maria bought a.f   black.f cat.f. the Kostas a.f
           aspri   ~~jata~~.
           white.f (cat.f)

           'Maria bought a black cat. Kostas bought a white one.'
       b.*I   Maria ajorase mia mavri **jata**. O   Kostas enan
           the Maria bought a.f   black.f cat.f. the Kostas a.m
           aspro   ~~jata~~.
           white.m (cat.f)

Merchant on Greek Nominal Ellipsis

Merchant's Claims

Merchant (2014) proposes a different analysis to ours.

Partly because he assumes that nominal ellipsis with gender mismatches only with predicative nominals, but not with argument nominals. (Based on data that involve systematic confounds; see Sudo & Spathas 2016 for details)

This generalization is already falsified by our data above.

Let's review his analysis nonetheless, and see what the essential difference is between the two analyses.

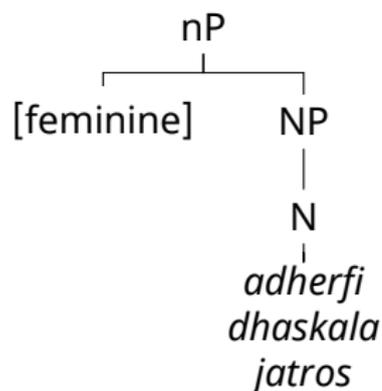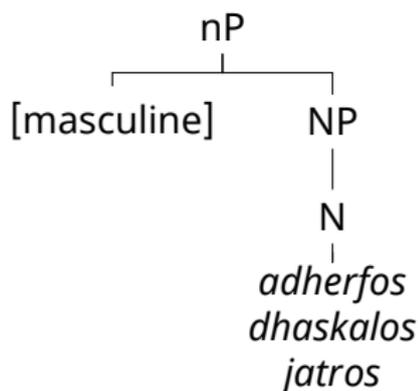# Merchant's Assumptions: Ellipsis Strategies

Merchant claims that there are two strategies available in Greek that lead to missing nouns on the surface:

1. PF-Deletion of nP triggered by the Ellipsis-feature [E]
   Only for gender matching cases

2. Null proform e_N
   Gender mismatching cases always involve e_N

(See Lobeck 2006 and Saab to appear for overviews on nominal ellipsis, and Gianakidou & Stravrou 1999 and Lekakou & Szendrői 2012, who propose e_N for Greek)

Merchant's Assumptions: Structures

Merchant postulates gender features above NPs:

```
        nP                              nP
    ┌────┴────┐                    ┌────┴────┐
[masculine]   NP               [feminine]    NP
              │                               │
              N                               N
          adherfos                        adherfi
          dhaskalos                       dhaskala
           jatros                          jatros
```

These features have presuppositional meanings:

(26) a. $[\![\text{[masculine]}]\!] = \lambda P_{et}.\lambda x_e :$ male(x). $P(x)$
    b. $[\![\text{[feminine]}]\!] = \lambda P_{et}.\lambda x_e :$ female(x). $P(x)$

Merchant's Assumptions: Nominal Semantics

Merchant assumes that only some of the gendered nouns lexically specify gender, and gender inferences are always presuppositional:

(27) a. $[\![\text{adherfos}]\!] = \lambda x_e :$ male(x). sibling(x)
      b. $[\![\text{adherfi}]\!] = \lambda x_e :$ female(x). sibling(x)

(28) $[\![\text{jatros}]\!] = \lambda x_e.$doctor$(x)$

(29) a. $[\![\text{dhaskalos}]\!] = \lambda x_e.$ teacher(x)
      b. $[\![\text{dhaskala}]\!] = \lambda x_e :$ female(x). teacher(x)

All of these combine with a gender feature, so at the nP level, there is always a gender presupposition.

# Strategy 1: PF-Deletion with [E]

Merchant assumes that [E] is on Num and requires semantic identity between the antecedent nP and elided nP:
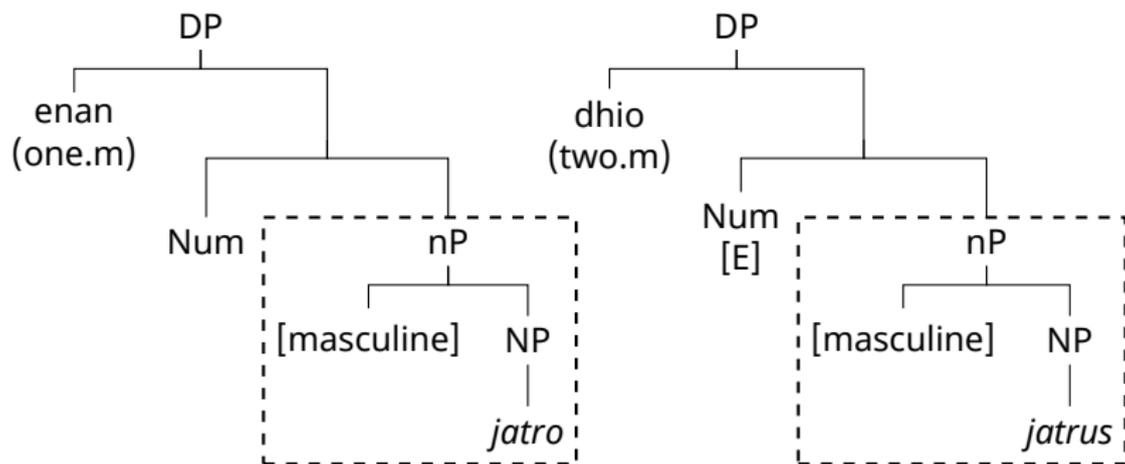
With a gender mismatch, the gender presupposition of the elided nominal will disrupt ellipsis licensing.

Strategy 2: Pro-form e_N

Merchant assumes that e_N is selected by Num and refers to a contextually salient property in the discourse.
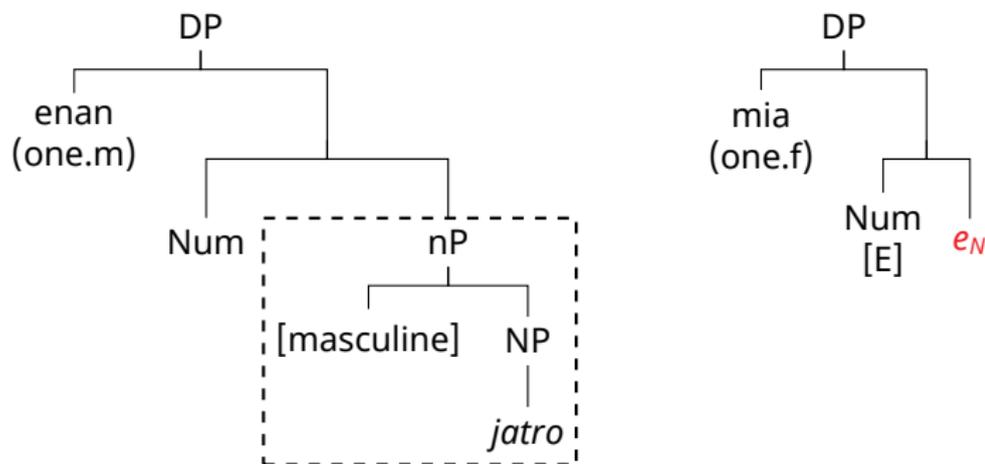

Gender mismatches are possible, if the contextually salient property has no gender presupposition of its own, e.g. *jatros* and *dhaskalos*.

If the property has a masculine presupposition, there will be a semantic clash.

Putative Predicate vs. Argument Asymmetry

Merchant assumes that the gender features on D and A in examples come from the subject of the predicational sentence.
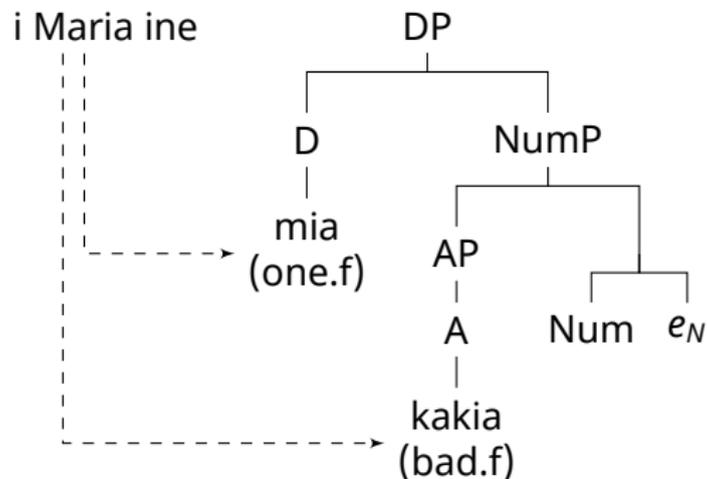
In argument positions, D and A will not have φ-features.

Comparison

Predicate vs. Argument

Merchant's theory derives the false generalization about predicative vs. argument. But this part of his theory is logically independent from how nominal ellipsis is derived.

He derives the asymmetry in terms of φ-agreement with determiners and adjectives: when e_N is used, the noun cannot provide φ-features for them.

He could assume instead that natural genders on determiners and adjectives are simply interpreted (we make the same assumption).

If he drops the idea that determiners and adjectives need licensing, the false asymmetry will disappear from his theory.

Lexical Semantics of Gendered Nouns

Merchant assumes that nouns with lexically specified genders have their gender inferences only in the presupposition. According to us, they also have gender inferences in the assertion.

He could adopt our semantics without changing the essence of his explanation. (And given that mismatches in φ-presuppositions are tolerated in many elliptical phenomena, this is a better move for him)

This is because what he needs is semantic total identity (both with PF-Deletion and e_N).

So the lexical semantics is also not a crucial difference from our theory.

How Many Strategies?

The most crucial difference between our analysis and Merchant's is whether two separate mechanisms are required to account for nominal ellipsis in Greek.

Merchant postulates both PF-Deletion and e_N.

We only need one of them. Earlier, we spoke as if the mechanism is always PF-Deletion, but we could have used e_N for our main data.

This is because what is crucial for us is total semantic identity under ellipsis. We could have it with e_N as well.

There are two reasons to favor the PF-Deletion-Only view.

Motivation for PF-Deletion

1. Extraction from nominal ellipsis site is generally possible, which suggests that the ellipsis site has an internal syntactic structure. So we need PF Deletion.

(30) Tu   Jani,   tha dho ton   xazo*F*   **dhikigoro** *t*.
       the.gen Janis.gen will see.I the.m stupid.m lawyer   *t*.
       Tu   Kosta, tha dho ton   ekspipno*F* ~~dhikigoro~~ *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.'

Motivation for PF-Deletion (cont.)

2. Grammatical gender data:

(23) *I   Eleni ine ena kalo   **koritsi**, ala i   Maria ine mia
     the Eleni is   a.n good.n girl.n,   but the Maria is   a.f
     kakia ~~koritsi~~.
     bad.f (girl.n)

   (intended) 'Eleni is a good girl, but Maria is a bad one.'

Assuming PF-Deletion, we speculated that this is something about grammatical gender agreement with the elided noun.

If e_N were available, why would (23) be bad?

(In fact Merchant 2014 leaves cases like this unaccounted for)

Summary

- Ellipsis requires total identity up to φ-presuppositions.
- The Principle of Gender Competition does not apply to elided material.
- **Only PF-Deletion**

	Masc ~~Fem~~	**Fem** ~~Masc~~
aderfos-aderfi	*	*
daskalos-daskala	ok	*
jatros	ok	ok

Adherfos-adherfi: both assert the gender, so ellipsis with gender mismatches is impossible.

Jiatros: only φ-presuppositions on D and A, so ellipsis with gender mismatches is possible.

Adherfos-adherfi: ok only with masculine, because it is semantically compatible with feminine D and A.

Brazilian Portuguese

Bobaljik & Zocca (2011:142) on Brazilian Portuguese:

(31) a. *O   Zé vai ser   **tio**   e   a   Lu   também vai ser   ~~tia~~.
the.m Zé be uncle.m and the.f Lu also will   be (aunt.f)

b. *A   Lu vai ser   **tia**   e   o   Zé   também vai ser
the.f Lu be aunt.m and the.m Z'e also will   be (uncle.m)
~~tio~~.

(32) a. ?O   Paulo é **ator**   e   a   Fernanda também é
the.m Pedro is actor.m and the.f Fernanda also   is
~~atriz~~.
(actress.f)

'Paulo is an actor, and Fernanda is too.'

b. *A   Fernanda é **atriz**   e   o   Paulo também é ~~ator~~.
the.f Fernanda is actor.f and the.m Paulo also   is (actor.m)

'Fernanda is an actress, and Paulo is too.'

Brazilian Portuguese (cont.)

One difference from Greek is that the *jatros*-type nouns have masculine-feminine forms.

(33) a. O   Pedro é **médico** e a   Marta também é ~~médica~~.
        the.m Pedro is doctor.m and the.f Marta also   is (doctor.f)

    'Pedro is a doctor, and Marta is too.'

   b. A   Marta é **médica** e o   Pedro também é ~~médico~~.
      the.f Marta is doctor.f and the.m Pedro also   is (doctor.m)

    'Pedro is a doctor, and Marta is too.'

We would analyze these two forms as having φ-presuppositions only:

(3) $[\![\text{jatros}]\!] = \lambda x_e.\ \text{doctor}(x)$

(34) a. $[\![\text{médico}]\!] = \lambda x_e :\ \text{male}(x).\ \text{doctor}(x)$
    b. $[\![\text{médica}]\!] = \lambda x_e :\ \text{female}(x).\ \text{doctor}(x)$

We make predications about *médico-médica* in focus constructions, but they are yet to be tested.

More Nouns in Brazilian Portuguese

	Masculine	Feminine	
Doctor-type	engenheiro	engenheira	'engineer'
	enfermeiro	enfermeira	'nurse'
	secretário	secretária	'secretary'
	director	directora	'director'
	professor	professora	'teacher'
	cantor	cantora	'singer'
	productor	produtora	'producer'
'Dhaskalos'-type	ator	atriz	'actor'
	poeta	poetisa	'poet'
	garçom	garçonete	'waiter'
Siblings-nouns	irmão	irmã	'brother sister'
	príncipe	princesa	'prince, princess'
	rei	rainha	'king, queen'
	tio	tia	'uncle, aunt'
	cunhado	cunhada	'sibling-in-law'

References

- Bobaljik & Zocca (2011) Gender markedness: the anatomy of a counter-example. *Morphology*, 21.
- Giannakidou & Stavrou (1999) Nominalization and ellipsis in the Greek DP. *The Linguistic Review*, 16.
- Johnson (2014) Commentary on 'Gender mismatches under nominal ellipsis' by Jason Merchant. *Lingua*, 151.
- Lekakou & Szendrői (2012) Polydefinites in Greek: Ellipsis, close apposition and expletive determiners. *Journal of Linguistics*, 48.
- Lobeck (2006) Ellipsis in DP. In *The Blackwell Companion to Syntax*.
- Merchant (2014) Gender mismatches under nominal ellipsis. *Lingua*, 151.
- Saab (to appear) Nominal Ellipsis. In *The Oxford Handbook of Ellipsis*.