1 Today’s two flavors of nominal nothing

- There is nominal ellipsis
- There are also null nominals (nouns or nominal heads that lack any phonology)


2 Nominal ellipses

Missing nouns are syntactically active: agreement, selection, extraction

2.1 Agreement

2.1.1 English

Agreement is not necessarily about meaning. English nominal ellipsis with pluralia tantum nouns shows that grammatical form matters. (Merchant 2019a:31)

(1) a. Beth’s wedding was in Bond Chapel, and Rachel’s wedding was in Rockefeller Chapel.
   b. Beth’s nuptials were in Bond Chapel, and Rachel’s nuptials were in Rockefeller Chapel.

(2) a. *Beth’s wedding was in Bond Chapel, and Rachel’s wedding were in Rockefeller Chapel.
   b. *Beth’s nuptials were in Bond Chapel, and Rachel’s nuptials was in Rockefeller Chapel.

(3) a. Beth’s wedding was in Bond Chapel, and Rachel’s was in Rockefeller Chapel.
   b. Beth’s nuptials were in Bond Chapel, and Rachel’s were in Rockefeller Chapel.

(4) a. *Beth’s wedding was in Bond Chapel, and Rachel’s were in Rockefeller Chapel.
   b. *Beth’s nuptials were in Bond Chapel, and Rachel’s was in Rockefeller Chapel.

2.1.2 German (Olsen 1987, Vater 1987)

(6) a. Marlies hat einen interessanten Roman empfohlen, aber Annemarie wollte einen eher uninteressanten Roman kaufen.
   ‘Marlies recommended an interesting novel, but Annemarie wanted to buy a rather uninteresting novel.’

b. Marlies hat einen interessanten Roman empfohlen, aber Annemarie wanted a masc.sg rather uninteresting, masc.sg novel masc.sg buy
   ‘Marlies recommended an interesting novel, but Annemarie wanted to buy a rather uninteresting one.’

(7) a. Marlies hat einen interessanten Roman empfohlen, aber Annemarie wollte ein eher uninteressantes Buch kaufen.
   ‘Marlies recommended an interesting novel, but Annemarie wanted to buy a rather uninteresting book.’

b. *Marlies hat einen interessanten Roman empfohlen, aber Annemarie wanted a neut.sg rather uninteresting, neut.sg book buy
   (intended: ‘Marlies recommended an interesting novel, but Annemarie wanted to buy a rather uninteresting book.’)

2.1.3 Greek (Giannakidou and Merchant 1997, Panagiotidis 2003a)

(8) Pes mu ja ta vivlia.
   tell me about the books neut.pl
A semantic theory of gender on animates (or maybe just human-denoting words)

Two-way alternating nouns (jatros ‘doctor’): Epicene (or ‘hybrid’ or ‘variable gender’; see Corbett 1991 and Aikhenvald 2000) nouns have only one form, but their concord and agreement patterns are determined by the natural (or ‘semantic’) gender of their referent (see in the article, attributive adjectives, predicate adjectives, relative pronouns, and personal pronouns; Merchant 2014):

(9) a. I kali jatros itan xarumeni. Tin agapusame.
the-fem good.fem doctor was happy.fem her loved.3p
‘The good doctor (female) was happy. We loved her.’

b. O kalos jatros itan xarumenos. Ton agapusame.
the.masc good.masc doctor was happy.masc him loved.3p
‘The good doctor (male) was happy. We loved him.’

NB: This isn’t just ‘natural’/‘semantic’ agreement (agreement ad sensum) overriding grammatical/syntactic agreement (agreement ad formam), as is possible with certain neuter nouns denoting animates (koristi ‘girl’, agori ‘boy’, pedhi ‘child’, melos ‘member’) and personal pronouns:

(10) a. To kalo koristi itan xarumeno. [To/tin] agapusame.
the.neut good.neut girl.girl was happy.neut it/her loved.3p
‘The good girl was happy. We loved it/her.’

b. i. * I koristi itan eki.
the.fem girl.neut was there

ii. Kales koritsia itan eki.
good.fem girls.neut were there

iii. * To koritsi itan xarumeno.
the.neut girl.neut was happy.fem

(11) a. O Petros gnorise enan jatro stin Veria, ala dhen sinandise kamia
the Petros met a.masc doctor in.the Veria but not met none.fem
*(jatro) stin Katerini.
docor in.the Katerini
(‘Petros met a (male) doctor in Veria, but he didn’t meet one (female doctor) in Katerini.’)

b. O Petros gnorise mia jatro stin Veria, ala dhen sinandise kanenan
the Petros met a.fem doctor in.the Veria but not met none.masc
*(jatro) stin Katerini.
docor in.the Katerini
(‘Petros met a (female) doctor in Veria, but he didn’t meet one (male doctor) in Katerini.’)


A semantic theory of gender on animates (or maybe just human-denoting words)

(13) Cooper 1983: Gender features on animate pronouns are presuppositions (implemented as partial identity functions by Heim and Kratzer 1998, et al.):

\[ \text{masculine} = \lambda x_3 : x \text{ is male}[x] \]
\[ \text{feminine} = \lambda x_3 : x \text{ is female}[x] \]

(14) Heim 2008: If \( \beta \) is a pronoun and \( i \) an index, then for any assignment \( g \), \( \beta[i] = g(i) \) (or undefined, if \( i \) is not in the domain of \( g \)):

\[ he_3 = \text{3rd singular masc pronouns} \]
(15) Simple extension to noun denotations:

(16) \[ \text{nP} \]

\[
\begin{array}{c}
\text{Gender} \\
\text{N}
\end{array}
\]

(17) \[ \begin{align*}
\text{masculine} &= \lambda P, \lambda x. : x \text{ is male}[P(x)] \\
\text{feminine} &= \lambda P, \lambda x. : x \text{ is female}[P(x)]
\end{align*} \]

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

A uniform syntax:

(19) \[ \begin{array}{c}
\text{nP} \\
\text{Gender} \\
\text{N} \\
\text{jatros}
\end{array} \]

a. Variable gender elements such as the determiner and the adjective enter the derivation without \( \phi \)-feature specifications (e.g., \( \alpha : [\alpha : \_\_\_\_] \)) and acquire them under Agree with \( \text{masculine} \) (see Baker 2008, Kratzer 2009); this is consistent with the architectural assumption that Agree happens on a branch of the derivation that does not feed LF (if the resulting features would have to be interpreted) or with the assumption that such inflectional features have no semantic effect at all.

b. The \([E]\) feature (here, on Num, or on some head lower than the AP, but higher than \( \text{masculine} \)): \([E]\) is compatible with Num, but not Gender. (This is the local morphosyntactic ‘licensing’ requirement; see van Craenenbroeck and Lipták 2006, Aelbrecht 2010, Kluck 2011 for more discussion of the variation here.)

c. Roughly, the E-feature imposes semantic identity between the meaning of the node it ‘deletes’ and that node’s antecedent: \([XP_d] = [YP_f]\)

d. This strategy will be available for all gender-matching ellipses, and only for those: for gender-mismatches, the \([E]\) feature is too high:

\[ \text{[indeterminate]} \]

\[ \text{[masculine]} \]

\[ \text{[feminine]} \]

\[ \text{[jatros]} \]

(20) a. They rely on oil.

b. Their reliance on oil is well-known.

c. They are reliant on oil.

(21) ...because \([nP_1] \neq [nP_2]\)

2.2 Selection

(22) a. The commission reacted to light.

b. The compound’s reaction to light was expected.

c. The compound was reactive to light.

Lexical selection effects can persist in the absence of the selecting noun.

(23) a. The commission produced two reports on the budget, and they produced three (reports) on the curriculum.

b. It’s easy to find objectors to taxes—it’s hard to find many (objectors) to infrastructure.

c. He has a great fear of spiders. He has none of snakes.

d. She had several encounters with kind priests; she had none with kind politicians.

e. The survey recorded forty-five believers in Thor; it found only six (believers) in Athena.

f. I read two books by Baker, and I read three (books) by Valmala.

(24) a. The commission produced two reports on the budget, and they produced three (reports) on the curriculum.

b. It’s easy to find objectors to taxes—it’s hard to find many (objectors) to infrastructure.

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f. I read two books by Baker, and I read three (books) by Valmala.

(25) Sein heftiges Interesse an Jazz stand in starkem Kontrast zu seinem eher his intense interest in jazz stood in strong contrast to his rather bescheidenen (Intresse) an Hiphop. (German)

modest interest on hiphop

‘His intense interest in jazz stood in great contrast to his rather modest interest in hip-hop.’

(26) Exi megalo fovo ja ta fidia. Exi omos elaxisto (fovo) ja tis araxines. (Gk)

has great fear for the snakes has however very little fear for the spiders

‘He has a great fear of snakes, but he has very little (fear) of spiders.’

(27) dependența de tutun și mai ales, cea de droguri (Romanian)

dependence on tobacco and especially CEl on drugs

‘the dependence on tobacco and especially the one on drugs’ (Nicolae 2019:139)
Also in one-anaphora: Payne et al. 2013, Kayne 2019:

(28) Dudley himself was no more eager for the match. Yes, he wanted to marry with a queen, but not the one of Scotland.

The resolution/inheritance mechanism for one-anaphora must have access to the selectional features of its (potentially complex) N antecedent (Merchant 2019b):

(29) a. Vicious attacks on our candidate were more frequent than tongue-in-cheek ones on theirs.
   b. Reliable chemical reactions to salt are easier for the students to observe than the unreliable ones to tungsten.
   c. Volatile investments in stocks pay more than stable ones in bonds.
   d. Her first objection to the bill was more effective than her second one to the law itself.

2.3 Extraction

One of the most compelling diagnostics for ellipsis of syntactic material comes from movement dependencies (see especially the seminal discussion in Hankamer and Sag 1976 and Sag and Hankamer 1984).

(30) VP-ellipsis:
   a. We need to know which films Anna refused to review, and which ones she agreed to.
   b. We need to know which films Anna agreed to review, and which ones she refused to.

(31) Which films she refused to review

Null Complement Anaphora fails to license the extraction of the object of an understood complement predicate:

(32) Null Complement Anaphora:
   a. We asked Anna to review these five films, and she agreed. (sc. to review them)
   b. *We need to know which films Anna refused to review, and which ones she agreed.

Nominal ellipsis, n/N heads, and lexical nominalization

(33) a. Of spiders, he has a great fear. Of snakes, she has none.
   b. By Baker, I read two books, and by Valmala, I read three (books).
   c. This is the battle on which the commission produced two reports, and this is the one on which they produced three.
   d. Thor is the god that the survey recorded forty-five believers in; Athena is the one that it found only six (believers in).
   e. Taxes are something that it’s easy to find objectors to—it’s infrastructure that’s hard to find many (objectors to).

Compare, if we dare, with one-anaphora:

(34) a. *This is the battle on which the commission produced two long reports, and this is the one on which they produced three short ones.
   b. *Thor is the god that the survey recorded forty-five old believers in; Athena is the one that it found only six young ones.
   c. *Taxes are something that it’s easy to find uninformed objectors to—it’s infrastructure that’s hard to find many informed ones.

(35) Vor Schlangen hat er große Angst; vor Spinnen hat er keine.
   ‘He has a great fear of snakes; he has no fear of spiders.’

(36) Vor Spinnen hat er keine Angst; vor Spinnen hat er keine Angst.

(Be careful: Schuyler 2001, Merchant 2008, Horrocks and Stavrou 1987: such extraction can be highly degraded out of some ellipsis sites. And extraction from NP is sensitive to usual acceptability cline (extraction from less definite > extraction from more definite, etc.)
3 Null nouns

‘Nominalizations’ (or ‘substanivizations’): people-deletion (null [+human] n, only occurs in plural definite contexts in English) and abstract (null n [-animate]) (Pullum 1975, Olsen 1988, De Belder and van Koppen 2012, Kayne 2005)

(37) a. The marginally accomplished are teaming up with the intellectually weak to ensure that the department doesn’t admit and hire the most promising or most challenging applicants.
   b. We should not cater only to the well/poorly prepared.
   c. Revolution is the very last resource of the thinking and the good.  (Edmund Burke)
   d. The good, the bad, and the ugly fought the bold and the beautiful.  
   e. All that it takes for the bad to triumph is for the good to do nothing.

(38) los de al lado / los tontos / los que cantan
the.masc.pl of to.the side the.masc.pl foolish.masc.pl the.masc.pl that sing.pl
‘the people next door / foolish people / the people who sing’ (Saab 2019:530) (lit. ‘the ones living next door / the foolish / the ones who sing’)

(39) Die Reichen sind anders als du und ich: die haben mehr Geld.
the rich are different from you and I they have more money
‘Rich people are different from you and me: they have more money.’

German spelling is helpfully sensitive to the difference between null nouns and nominal ellipsis: capitalization (“Großschreibung”) is for use on adjectives modifying a null n; lowercase is for use with nominal ellipsis:

(40) a. Die Reichen werden noch reicher. (Günther 2012b)
   the rich get even richer
   ‘The rich get even richer.’
   b. Die ärmeren Staaten können das nur, wenn die reichen ihnen helfen.
   the poorer states can that only if the rich them help
   ‘The poorer states can only do so if the rich ones support them.’

(41) Nominalizer:

(42) Ellipsis: 

(43) a. Don’t let the perfect be the enemy of the good.
   b. Aristotle’s search for the good is a search for the highest good. (R. Kraut 2022)
   c. We seek out the insightful, and ignore the worthless.

(44) a. das Schöne ist nichts als des Schrecklichen Anfang
the beautiful is nothing but the.gen terrible beginning
   ‘The beautiful is nothing but the beginning of the terrifying.’ (more usually translated as ‘Beauty is nothing but the beginning of terror’) (Rilke, First Duino Elegy)
   b. Sie fordert eindeutige Beweise für das Unfassbare. (Günther 2012b)
she demands clear proofs for the inconceivable
   ‘She demands clear proofs of the inconceivable.’

(45) a. 
   b. 

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1These are titles of Sergio Leone’s spaghetti western movie (“Il buono, il brutto, il cattivo”) and an American TV show, respectively. The former is not actually grammatical in English in the intended meaning, but close enough. It should have been: “The good one, the bad one, and the ugly one.” Obviously less pithy.
German individual $n$: masculine or feminine, singular or plural, not restricted to generic contexts or ‘characterizing’ adjectives:

   Each affected.masc can refl here register
   ‘Each affected man can register here.’

b. Ein Betroffener stürzte erregt herein.
   a affected.masc burst upset in
   ‘An affected man burst in upset.’

c. Der Betroffene setzte sich in einen Stuhl hin.
   ‘The affected man sat down in a chair.’

d. Wir hören es von einem Betroffenen.
   ‘We heard it from an affected man.’

e. Der Bericht des Betroffenen war durchaus glaubwürdig.
   ‘The report of the affected man was completely credible.’

f. Nachdem wir einen Betroffenen gesehen haben, haben wir die Polizei angerufen.
   ‘After we saw an affected man, we called the police.’

g. Wir sind einigen/vielen/mehreren/mehr als zehn Betroffenen entgegengekommen.
   ‘We encountered some/many/several/more than ten affected people.’

(47) a. Jede Betroffene kann sich hier melden.
   each affected.fem can refl here register
   ‘Each affected woman can register here.’

b. Eine Betroffene stürzte erregt herein.
   a affected.fem burst upset in
   ‘An affected woman burst in upset.’

c. Die Betroffene setzte sich in einen Stuhl hin.
   ‘The affected woman sat down in a chair.’

d. Wir hören es von einer Betroffenen.
   ‘We heard it from an affected woman.’

e. Der Bericht der Betroffenen war durchaus glaubwürdig.
   ‘The report of the affected woman was completely credible.’

f. Nachdem wir eine Betroffene gesehen haben, haben wir die Polizei angerufen.
   ‘After we saw an affected woman, we called the police.’

g. Wir sind einigen/vielen/mehreren/mehr als zehn Betroffenen entgegengekommen.
   ‘We encountered some/many/several/more than ten affected people.’

(48) a. *Jedes Betroffene kann sich hier melden.
   (Intended: ‘The affected child can register here.’)

b. *Ein Betroffenes stürzte erregt herein.
   (Intended: ‘The affected child burst in upset.’)

(49) Compare with the neuter noun Kind ‘child’:

a. Jedes betroffene Kind kann sich hier melden.
   each affected.neut child can refl here register
   ‘Each affected child can register here.’

b. Ein betroffenes Kind stürzte erregt herein.
   a affected.neut child burst upset in
   ‘An affected child burst in upset.’

c. Das betroffene Kind setzte sich in einen Stuhl hin.
   ‘The affected child sat down in a chair.’

d. Nachdem wir ein betroffenes Kind gesehen haben, haben wir die Polizei angerufen.
   ‘After we saw an affected child, we called the police.’

(50) German inventory of null nominalizing $n$: n(man), n(woman), n(people), n(+abstract/kind, sg, neut)

(51) Nominal ellipsis, n/N heads, and lexical nominalization
Der Zusatznutzen wäre, dass erneut Geboosterte eine begrenzte Zeit besser geschützt wären. 'The additional advantage would be that those who have been boosted again would be better protected from the transmission of the virus for a certain amount of time.' (Berliner Zeitung, 6. Feb. 2022)

4 Conclusions

1. There are two special null ns (or Ns) in English: one that is [+human] and denotes in kinds (actually takes a kind-applying A and returns a kind set), and one that is [–animate] and does the same. These can then only combine with adjectives applicable to kinds, and only occur under determiners that quantify over kinds (i.e. “generics”). The former occurs only in plural definite kind contexts, and the latter only in singular definite kind contexts.

2. German has a fuller inventory: there are four special null ns in German: three that denote humans (two singular, masc and fem, and one plural) and which are not restricted to kinds; and one that is nonanimate and applies only to kinds. (Something similar is true in Greek and Spanish, with additional complications in the gendered plurals in those languages.)

3. Nominal ellipsis is just nominal ellipsis: subject to the regular licensing and identification requirements of ellipsis, including finding an antecedent etc., but not restricted to kinds or abstract nominal antecedents or anything else. The fact that they are syntactically there in the same form as their antecedents is why they can license agreement, internal arguments, and extraction.