

On the internal structure of demonstrative and personal pronouns: the view from Romanian *

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Summary:

- The problem of personal pronouns from the perspective of noun ellipsis and empty nominals
- Summary of the results in Giurgea & Ivan (2023a,b)
- Discussing some further issues raised by this account
- Extending the discussion to demonstrative pronouns

1. Background on definite pronouns. Giurgea & Ivan (2023a,b):

- The apparent gap in the distribution of THE + [NPØ] supports the analysis of 3rd person pronouns as THE+total-ellipsis, a view for which there is independent evidence
- But equating PRON with THE + [NPØ] faces a number of problems
- Proposal: pronouns do contain an N-constituent, but their D, although it has the semantics of THE, differs from THE in terms of features; a minimal difference between THE and D_{pron} must exist because D_{pron} carries the features necessary for licensing an empty complement

1.1. Nominal ellipsis in definite DPs and the issue of THE+[NØ]

- (At least) 2 types of pro-forms in nominals:

- pro-DPs:

(1) I sold [the car]/[it]

- pro-N/pro-NPs:

(2) a. I bought [two [books]] / [two [Ø]]

b. I sold [two [old [books]]] / [two [old [ones]]]

c. J'ai acheté [deux [vieux livres]] / J'en_i ai acheté [deux Ø_i]

- 2 types of anaphoric interpretations which these pro-forms can have:

- referential/indexical anaphora: the reference of the DP that is dependent on an “antecedent”

- co-reference

- bound variable readings

- ‘nominal anaphora’ (Corblin 1995) – predicative expression (property or relation), containing at least the N (+ possibly, complements of the N and adnominal modifiers) – see (2);

By defining ‘antecedent’ as a *salient element in the context*, we include here *exophoric* uses, where the antecedent is extra-linguistic (‘pragmatic antecedent’, see Hankamer & Sag 1976). Extralinguistic antecedents are found both with referential/indexical anaphora and with nominal anaphora (and identity-of-sense anaphora more generally)

- 2 types of interpretation of the nominal part of a DP without an overt N

- With nominal anaphora ([NØ]_{anaph}): see (2)a

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- (3) a. Este nevoie de **spitale**. S-a decis să se construiască **unul/două/ câteva/multe** / is need of hospitals REFL-has decided SBJV REFL build.3 one /two/ some/many / **alte** [NØ] în anii următori. (Ro.) [NØ] = *spitale/ hospital(s)* others in years-the following
‘Hospitals are needed. It has been decided to build **one/two/some/a lot (of them)/ several/others** [NØ] in the following years.’
- b. Aceste **șervețele** sunt mai potrivite decât **acelea/celelalte** [NØ]. [NØ] = *șervețele/napkins* these napkins are more appropriate than those/ the-others
‘These napkins are more appropriate than **those/the others** [NØ].’
- (4) a. Se pare că îi plac doar **trandafiri**-i roșii, iar eu i-am adus [[DØ] [NØ] galbeni]]. (Ro.) [NØ]/ones = *trandafiri/roses* brought yellow.MPL
‘It seems she only likes red roses, and I brought her **yellow ones**.’
- b. N-a adus nimeni **bere**. Noroc că am eu [[DØ][NØ]] în frigider. [NØ] = *bere/beer* not-has brought nobody beer fortune that have.1 I in fridge
‘Nobody brought beer. Fortunately, I have **some** [NØ] in the fridge.’

- Without recovery of an N(P)-property from the context; the descriptive content is +/-human,+/-female based on gender (and also on the selectional restrictions of the predicate that takes the DP as an argument, see) – [NØ]_{non-anaph}

- (5) [Context: no antecedent for the missing N]
- a. Am văzut **doi** [NØ] care se sărutau. [NØ] = +human (*people*) (Ro.)
have.1 seen two which REFL were-kissing
‘I saw **two people** kissing.’
- b. **Fiecare** [NØ] vrea să fie iubit. [NØ] = +human
Each wants SBJV be.3 loved
‘**Every person/Everybody** wants to be loved.’
- c. A intrat [una [[N Ø] foarte beată]]. [NØ] = +human +female
has entered one.FSG very drunk.FSG
‘**A very drunk woman** came in.’
- d. Mi-a spus **multe** [NØ]. [NØ] = -animate
me.DAT-has told many.FPL
‘(S)he told me **many things**.’
- e. Îl admiră multe [NØ]. [NØ] = +human +female
him admire.3 many.FPL
‘**Many women/girls** admire him.’

At least in some languages (such as Romanian), DPs have systematic “noun-less” variants.

→ We expect that definite Ds, in particular the definite article and the demonstrative, should occur in such “noun-less” DPs¹.

¹ There have been proposals that N-ellipsis in general requires a contrastive remnant (Giannakidou & Stavrou 1999, Eguren 2010, Cornilescu & Nicolae 2012), but such a general constraint is too strong (see Saab 2008, 2019, Saab & Lipták 2016, Alexiadou & Gengel 2012) – see (4), where there is no remnant at all, or (i) below, where ‘λx.x has a lawn-mower’ represents the given part of the sentence, the background of the focus, so there is no contrastive focus inside [una [NØ]] / *one* (the intonation confirms this, the entire DP being destressed):

(i) A: Are o mașină de tăiat iarba. B: Și eu am [una [NØ]]
has a machine(F) of cutting grass-the also I have.1 one.FSG
‘A: (S)he has a lawn mower. B: I have one too.’

Demonstratives do have such uses (see (3)b), but for the definite article (THE), we find a difference between *partial NP-emptiness* and *total NP-emptiness* (N.B.: we may also speak about ‘total/partial ellipsis’, but the term ‘ellipsis’ may suggest N-anaphora => I use ‘emptiness’ to cover [Ø]_{+/-anaph})
 - With respect to **partial-NP emptiness**, THE behaves by and large like other Ds, bar the fact that sometimes special forms are used because THE is weak (affixal or clitic-like) and weak forms are not allowed before [NØ] (special forms are often taken from the (distal) demonstrative):

[NØ]_{anaph}

- (6) a. **Mașina** verde e mai frumoasă decât [**cea** [[NØ]_{anaph} roșie] (Ro.)
 car(F)-the green is more beautiful than the.FS red.FS
 b. **El coche** verde es más bonito que [**el** [[NØ]_{anaph} rojo] (Sp.)
 c. **La voiture** verte est plus jolie que [**la** [[NØ]_{anaph} rouge] (Fr.)
 the car green is more nice than the red
 d. **The green car** is nicer than **the red one**. [NØ]/[one] = *mașină/coche/voiture/car*
- (7) a. La **traduction** de l’interview m’a pris plus de temps que
 the translation of the interview me-has taken more of time than
 [**celle** [[NØ]_{anaph} de l’article]] (or [DC][[pro-N**elle**] de l’article]] (Fr.)
celle of the article
 b. The **translation** of the interview took me longer than [**that** [[NØ] of the article]]
 ≠ The translation of the interview took me longer than **that** translation of the article
 [NØ] = *traduction/translation*

[NØ]_{non.anaph}

- (8) [context: no animate noun serving as a potential antecedent]
 a. Nu este indicat pentru [**cei** [[NØ]_{non-anaph} cu frică de înălțime]] (Ro.)
 not is suitable for the.MP with fear of height
 ‘It is not suitable for [**those** [[NØ]_{non-anaph} who are afraid of heights]].’
 [NØ] = +human (*people*)
 b. un politician care nu se prea pricepe la [**cele** [[Ø]_{non-anaph} ale justiției]]
 a politician who not REFL too-much is-good at the.FPL GEN justice-the.GEN
 ‘a politician who is not very good at judicial **matters/issues**’
 [NØ] = -animate
 (<https://www.luju.ro/pot-spune-cu-mana-pe-inima-adio-independenta>)

- **Total emptiness**: many languages show different (spell-out) forms. The closest counterparts seem to be 3rd person personal pronouns (henceforth PRON):

- (9) a. A venit cu o mașină nouă. Mi-a spus că a cumpărat **{-o /*cea [NØ]}** în iunie. (Ro.)
 Has come with a car new me.DAT-has told that has bought-3SFG.ACC/the.FSG in June
 b. He came in a new car. He told me he bought **{it/*the one}** in June.

→ A common hypothesis is that **PRON** (e.g. *el*) spell out structures of the type [**THE** [NØ]] (Postal (1969), Panagiotidis (2002), Elbourne (2001, 2005, 2013), Sauerland (2007), Kratzer (2009), Patel-Grosz & Grosz (2017), a.o.)

This idea could be implemented, in Distributed Morphology, by using special vocabulary insertion rules for THE in the context [DP THE [Ø]], or by assuming rules of phrasal spell-out for DPs made available by the null complement of THE.

1.2. Supporting evidence for N-ellipsis in pronouns

1.2.1 Paycheck/Neontological pronouns (also called “pronouns of laziness”): the pronoun does not have the same reference as the DP that intuitively counts as its antecedent, nor is it bound by it. The only

relation with its antecedent is that of N(ominal)-anaphora: the pronoun is interpreted as [THE NP], where the NP is that of the antecedent (Karttunen 1969; Elbourne 2005: “neontological pronouns”).

- Pronouns where the descriptive part contains a **variable** (e.g. *his*) which takes a different antecedent:

- (10) The_i man who gave **his_i paycheque** to his wife was wiser than the_k man who gave **it** to his mistress. (Karttunen 1969)
 John_i gave **his_i paycheck** to his mistress. [Everybody else]_k put **it** in the bank. (Elbourne 2005 < Cooper 1979)
the_k man who / [everybody else]_k it = his_k paycheck....

The possessor that triggers disjoint reference may be implicit:

- (11) Most books contain **a table of contents**. In some, **it** is at the end. (Heim 1990: 39)
 SOME (x a book, s a situation containing x) [in x , ιy .table-of-contents)(y)(s) is at the end]
*it = ιy .table-of-contents)(y)(s), where s is bound by *some**

- Pronouns where only the **situation (or time) variable** wrt. the description is evaluated is what varies (different situation => different (unique) individual in that situation)

- (12) This year **the president** is a Republican. Next year **he** will be a Democrat. (Elbourne 2005 < Cooper 1979)
he = ιx .president-USA(x)(s), where time(s) \subseteq next year

- (13) **Le médecin** a interdit à Marie de fumer. A moi, **il** ne m’a rien dit. (Fr., Corblin 2006 : 7)
 ‘The doctor forbade Mary to smoke. To me, **he** didn’t say anything.’
 different situations of visiting a doctor → compatible with there being different doctors

- Pronouns for **parts of idioms**, with no referent in the actual world:

- (14) a. Pierre a pris **la mouche**. Il **la** prend souvent pour un rien. (Fr., Corblin 2006 :8)
 Pierre has caught the fly he it catches often for a nothing
 ‘Pierre got ticked off. He often gets ticked off for a trifle.’
 b. Lui Petru i-a sărit **țandăra**. Îi sare **pro** adesea pentru un fleac. (Ro.)
 DAT Peter CL.DAT-has jumped splinter-the 3S.DAT jumps often for a trifle
 ‘Petru got ticked off. He often gets ticked off for a trifle.’
 c. Peter had his **guard** up. He’d often keep **it** up in situations like these.

1.2.2 The interpretation of grammatical (non-semantic) gender on pronouns

‘Non-semantic gender’: assigned to nouns, without reflecting a property of the referent.

Pronouns that have a nominal antecedent with non-semantic gender typically show the grammatical gender of their antecedent:

- (15) a. Am pus **pantoful_i** pe scaun. Peste **el_i** am pus umbrela. (Ro.)
 have.1 put shoe(M)-the on chair over 3MS.ACC have.1 put umbrella-the
 ‘I put the shoe on the chair. I put the umbrella over **it**.’
 b. Am pus **cămașă_i** pe scaun. Peste **ea_i** am pus umbrela.
 have.1 put shirt(F)-the on chair over 3FS.ACC have.1 put umbrella-the
 ‘I put the shirt(f) on the chair. I put the umbrella over **it**.’

The gender feature on the pronoun cannot be the result of syntactic agreement because the pronoun may occur in a different utterance (see (15)), or there may be no linguistic antecedent at all (see (16)).

In the exophoric use, where pronouns refer to entities salient in the context, the gender reflects the nominal concept that characterizes the referent:

- (16) [Context: a bill is at the hearer's feet]
 a. Ia-o, ce mai aștepti? (Ro.: *hârtie, bancnotă* 'banknote, bill' are feminine)
 take.IMPV.2S-3SF.ACC what still wait.2SG
 'Take it, what are you waiting for?'
 b. Prends-le, tu hésites encore? (French; *billet* 'banknote, bill' is masculine)
 take.IMPV.2S-3SF.ACC you hesitate still

As the gender feature cannot result from agreement with the antecedent and does not encode a feature of the referent, its presence can only be explained as resulting from N-anaphora (=> evidence for $[N\emptyset]_{\text{anaph}}$ inside pronouns, see Sauerland 2007, Giurgea 2010, Patel-Grosz & Grosz 2017).

=> the antecedent of nominal anaphora can be provided by a salient concept in the extralinguistic context; NP-ellipsis does indeed allow extralinguistic antecedents:

- (17) a. [Sag produces an apple] (Hankamer & Sag: 1976 : 34)
 Hankamer : Did you bring **one** $[N\emptyset]$ for me? $[N\emptyset] = \textit{apple}$
 b. Ai adus **unul** $[N\emptyset]$ și pentru mine? (Ro.)
 have.2sg brought one.MS also for me
 $[N\emptyset] = \textit{măr}$ 'apple': NEUT (i.e. SG → M; PL → F)

A similar case is that of the uninterpretable number of lexical plurals (pluralia tantum):

- (18) Have you seen **my scissors**? I'm afraid I forgot **them** at home.

The gender on the pronouns can be interpretable (Romance: for animates) – the so-called 'natural' gender. When grammatical gender and natural gender are in conflict, a coreferent pronoun can take either of them (at least in the case of animates):

- (19) A văzut **gărzile** dar nu se teme de **ele/ei**. (Ro.)
 has seen guards(F)-the but not REFL fears of they.F/they.M
 '(S)he saw the guards but is not afraid of them.'

1.3. Problems for equating PRON with THE+[NP \emptyset] (other than morphology)

However, pronouns may differ from THE in features that are relevant for syntax and semantics, which cannot be relegated to PF.

1.3.1 Binding: pronouns differ from DPs with overt Ns wrt. binding/coreference. Pronouns are subject to Condition B, non-pronominal DPs are subject to Condition C.

- (20) a. [The doctor]_i said that {he_i /*[the doctor]_i} was right.
 b. I asked [John]_i about {his_i /*[the boy's]_i} mother.

1.3.2 Difference in syntactic and semantic features

- Gender

- (21) Engl.: no gender on THE or on N; 3 gender forms for PRON_{sg}: *he, she, it*
 Swedish: two genders on THE and in other non-PRON DPs (common/neuter)
 4 gender forms of PRON_{sg}: *han* MASC, *hon* FEM.SG, *den* INAN.COMM, *det* INAN.NEUT

- **Syntactic features** that underlie distributional differences, see the special placement of clitics or Scandinavian object shift

- (22) Je connais **la théorie**. / Je **la** connais. (Fr.)
 I know the theory(F) I 3FS.ACC know
 ‘I know the theory / I know it.’

1.3.3 A one-to-many correspondence in languages with strong and weak series of pronouns

- The difference between strong and weak forms (where under “weak” we include clitic, null forms) is not just a matter of PF.

- A PF-treatment is feasible where the strong forms must be used due to formal constraints and are clitic-doubled (formal constraints = where a prosodic word is necessary: for focus and contrastive topic marking, in PPs, coordinations, with modification by focal particles)

- But the use of strong forms goes beyond these “forced” cases: sometimes either form can be used, with certain meaning effects:

- Strong forms associated to a reduced degree of accessibility of the antecedent (e.g. antecedents placed in less prominent positions) – see overt vs. null subjects:

- (23) Vom discuta acum categoriile lui Kant_i. {**E_i** / **?pro_i**} le obține pornind
 will.1PL discuss now categories-the GEN Kant he them.F.ACC obtains starting
 de la tipurile de judecăți. (Ro.)
 from types-the of propositions
 ‘We will now discuss Kant’s categories. He obtains them based on types of propositions.’

- Strong forms restricted to +human (Cardinaletti & Starke 1999) – in some languages and for some forms²

- (24) a. ?? Non ho comprato **la machina_i**; perchè non mi è piaciuta/sono piaciuti
 not have.1S bought the car because not me.DAT is pleased/are pleased
 né **lei_i** né il suo proprietario. (It., Cardinaletti & Starke 1999)
 neither 3FSG.STRONG nor the its owner
 b. Jag köpte inte bilen_i, för jag gillade varken **den_i** eller des ägare (Swedish, Holmberg 1999)
 c. (%) N-am cumpărat mașina fiindcă nu mi-a plăcut nici **ea**, nici proprietarul ei. (Ro.)

In Ro., the restriction appears for the deictically used PRON (~demonstratives, cases when deixis is necessary to establish reference, not a mere exophoric use):

- (25) Ia-o pe EA.
 take.IMPV-3SFG.ACC DOM 3FSG.STRONG
 ✓ pointing to a woman
 * pointing to a table (*masă* ‘table’ is feminine)
 ‘Take HER/*IT’

- Strong forms sometimes reject paycheck (neontological) readings³:

Ro., this holds for strong objects (less so for overt subjects and not for complements of P):

² See Perlmutter et Oresnik (1973) for Slovenian, Jaeggli (1982) and Schrotten (1992) for Spanish, and Cardinaletti & Starke (1999) for Italian, German, Slovak, Hungarian, Hebrew, Gun

³ See Kurafuji (1998) for Japanese, Runić (2014), Bošković (2018) for Serbo-Croatian, Bi & Jenks (2019) for Mandarin.

- (26) Ioana l-a făcut pe fiul ei muzician. Dana {l-a făcut
 Ioana CL.ACC-has made DOM son-the her musician Dana CL.3MS.ACC-has made
 doctor. /* l-a făcut **pe el** doctor.}
 doctor CL.ACC-has made DOM him doctor
 ‘Ioana made her son a musician. Dana made him (= her own son) a doctor.’

Overt subject pronouns allow neontological readings:

- (27) Unii nu-și mai găseau {cărțile /cartea} de identitate.
 some.PL not-3REFL.DAT more were-finding cards(F)-the card(F)-the of identity
 La mine, **pro/ea** stă mereu în portofel. (Ro.)
 at me 3FS stays always in wallet
 ‘Some couldn’t find **their identity cards**. I always keep **it** in the wallet.’
pro/ea = *cartea de identitate* ‘the identity card’

- Null forms can be genderless, which allows them to occur in environments which exclude the corresponding strong forms:

- (28) a. A: [Vine mâine]_i. B: {*pro*/**El*/**Ea*_i} e imposibil(*ă)
 comes tomorrow 3MS 3FS is impossible
 ‘A: (S)he comes tomorrow. B: It’s impossible.’
 b. Cine bate la ușă ? (*pro*/**El* /**Ea*) e poștașul.
 who knocks at door 3MSG.NOM 3FSG.NOM is postman-the
 ‘Who’s knocking at the door? It’s the postman.’

=> issue: if PRON is THE+total-emptiness, which series corresponds to THE+[_{NP}∅]?

1.3.4 A gap in the possible THE+[_N∅] combinations

As we have seen in §1.1, [_N∅] can be both anaphoric and non-anaphoric (+/- nominal anaphora)

See especially (8) for [_N∅]_{non-anaph} in DPs with THE.

As DPs headed by THE can be +/- anaphoric (referential anaphora), we expect 4 combinations of anaphoric relations in PRON, but apparently only 3 are found

=> we expect 4 combinations of these relations (Table I):

	+ referential anaphora	- referential anaphora
+ N-anaphora	- anaph. pronouns with gram. gender: <i>Am pus cămașa_i pe scaun. Peste</i> have.1 put shirt(F)-the on chair over <i>ea_i am pus umbrela.</i> 3FS.ACC have.1 put umbrella-the	- paycheck pronouns: The man who gave his paycheque to his wife was wiser than the man who gave it to his mistress
- N-anaphora	- anaph. pronouns with no nominal antecedent: A: (S)he comes tomorrow. B: It is impossible.	??

We would expect an interpretation ‘maximal sum of people/female humans/things in the current situation/world of evaluation’. The [-animate] is perhaps too vague, but [_N∅]_{non-anaph} is most easily interpreted as [+human] => at least [+human] readings are expected to occur.

With partial ellipsis, this interpretation is possible, as expected, see (8), repeated below:

- (8) [context: no animate noun serving as a potential antecedent]
 Nu este indicat pentru [**cei** [_N∅]_{non-anaph} cu frică de înălțime]] (Ro.)
 not is suitable for the.MP with fear of height

‘It is not suitable for [**those** $[[N\emptyset]_{\text{non-anaph}}$ who are afraid of heights]].’
 $[N\emptyset] = +\text{human}$ (*people*)

But with total ellipsis,

- no generic use:

- (29) a. Acum vorbim despre **ei**. (Ro.)
 now talk.1PL about them
 ‘Now we’re talking about **them**.’
 Impossible interpretation: ‘we’re talking about humans in general’
 b. **pro** sunt ființe sfâșiate de contradicții.
 are beings torn by contradictions
 ‘**They** are beings torn apart by contradictions.’
 Impossible interpretation: ‘humans in general are beings torn apart by contradictions.’

- an interpretation ‘maximal sum of humans in a restricted situation’ is sometimes possible (see (30)), but it seems to involve a different kind of pronouns, impersonals, which are restricted to subjects and whose reduced anaphoric potential indicate that they are not identical to definite 3rd person pronouns (see (31)):

- (30) [context: no antecedent for *pro/they*]
 Aici/În orașul ăsta, **pro** nu-și lasă mașinile în stradă.
 here in city-the this not-3REFL.DAT leave.3PL cars-the in street
 ‘Here/In this city, **they** (people) don’t leave their cars on the street.’
pro = [the maximal sum of people in the topic situation s] ?
 (31) [context: no antecedent for *pro/they*]
 Aici, **pro**_i fac curățenie duminica. ?? Admir comportarea **lor**_i / ??Un oraș ca al
 here do.3P cleaning Sunday-the admire.1S behavior-the their a city like AGR.GEN.MS
lor_i ar trebui să fie ținta noastră.
 their would must SBJV be goal-the our
 Here, **they**_i clean on Sundays. ??I admire **their**_i behavior / ??A city like **theirs**_i should be our goal.

N.B. Overt pronouns in Ro. completely lack this use:

- (32) [context: no antecedent for *pro/they*]
 # Aici/În orașul ăsta, **ei** nu-și lasă mașinile în stradă
 here in city-the this they not-3REFL.DAT leave.3PL cars-the in street

THE+ $[N\emptyset]_{\text{non-anaph}}$ with partial emptiness (non-empty restriction) does not show such reduced anaphoric potential:

- (33) [**Cei de aici**]_i fac curățenie duminica. Admir comportarea **lor**_i.
 the.MP from here do cleaning Sunday-the admire.1S behavior-the their
 [**Those that live here**]_i clean on Sundays. I admire **their**_i behavior.

Conclusion: if PRON=THE+ $[NP\emptyset]$, it is not clear why the combination in (iv) is unavailable

Interim conclusion: There are problems for the idea that the determiner found in PRON, call it D_{PRON} , is always no more than THE. Perhaps D_{PRON} might include THE as part of its hidden structure and/or its meaning, as opposed to being identical to it. But then, why is THE ruled out with *total emptiness*? That is, why does the spell-out of THE require the existence of an overt complement?

1.4. Giurgea & Ivan’s (2023a,b) account: features for emptiness

The expectation that a plain THE should occur in total emptiness contexts is justified only if we consider that $[N\emptyset]_{\text{anaph}}$ and $[N\emptyset]_{\text{non-anaph}}$ are ordinary Ns. But there are already a number of restrictions in their distribution across languages that indicate that this assumption is unwarranted.

Proposal:

- (34) a. Pronouns are analyzable as D+[_{NP}∅], but the D found in pronouns (D_{pron}) is different from THE
b. D_{pron} has the semantics of THE but bears additional formal features needed for licensing an empty complement
 (i) [+E] for [_N∅]_{anaph}
 (ii) [+∅] for [_N∅]_{non-anaph}
c. With partial emptiness, these features are not on D but on a lower head (n or Num) => THE, rather than D_{pron}, occurs in the D position

(i) [_N∅]_{anaph} is a sub-case of ellipsis (see Elbourne (2005) for an ellipsis account of neontological pronouns), and general studies on ellipsis agree that ellipsis needs syntactic licensing and that it is associated to dedicated heads:

- (35) The heads F that introduce [_N∅]_{anaph} carry an [E] feature (Merchant 2001), which comes with the interpretative requirement of an antecedent for the complement of F⁴.

- a very low position for [E] must be assumed for cases with a complement remnant:

- (36) Examinarea ipotezelor a fost mai rapidă decât [cea [[_N∅]_{anaph} a surselor]]. (Ro.)
examination-the hypotheses-the.GEN has been more fast that the GEN sources-the.GEN
The examination of the hypotheses was faster than [that [[_N∅]_{anaph} of the sources]].
- (37) E importantă referirea la comentatori consacrați, dar și [cea/aceea [[_N∅]_{anaph} la surse]].
is important reference-the to commentators established but also the/that to sources
'It is important to constantly refer to commentators, but also to sources' (Ro.)

N.B. The Engl. pro-N *one* is ruled out with complements (=> it is a pro-NP), but Engl. can use ∅ + a strong form of THE (namely *that*) for complement remnants, see (36).

(ii) For [_N∅]_{non-anaph}, constraints in distribution are also noticeable across languages (see Engl. vs. Ro. in (38)a-c) and also within one language – even in Ro. there are some gaps in its distribution, see (38)d:

- (38) a. Am văzut **doi/mulți** [_N∅]_{non-anaph} care se sărutau.
have.1 seen two.MPL/many.M which REFL were-kissing
'I saw **two/many people** kissing.'
- b. A intrat [**una** [[_N∅]_{non-anaph} foarte beată]].
has entered one.FSG very drunk.FSG
'A very drunk **woman/girl** came in.'
- c. Știe **multe /destule / altele** [_N∅]_{non-anaph}
knows many.FPL enough.FPL/other.FPL
'(S)he told me **many/enough/other things**.'
- d. * Știe **niște** [_N∅]_{non-anaph}
knows some
Intended interpretation: '(S)he knows some (things/people).'

Actually, in Ro. positing a [_N∅]_{non-anaph} is supported by the productivity of noun-less DPs with quantity expressions and various determiners (see section 2), but the relevant configuration can also be obtained by *incorporating a grammatical N* (analyzable, perhaps, as *an intransitive n*) into D – see pronouns of the type *somebody, something*.

[_N∅]_{non-anaph} can be considered an intransitive n, and it is the absence of special forms of D that may decide between selection of [_N∅]_{non-anaph} and incorporation.

⁴ For the use of [E] for nominal ellipsis, see Saab (2019) and references therein

→ $[N\emptyset]_{\text{non-anaph}}$ also requires licensing features on nominal functional items: $[+\emptyset]$ = selection of a grammatical n with no phonological realization

→ like for $[N\emptyset]_{\text{anaph}}$, we may conclude that non-N-anaphoric $D_{\text{pron}} \neq \text{THE}$ because it has an additional feature: $[+\emptyset]$. Alternatively, it incorporates a grammatical N (an intransitive n).

If D_{pron} is a grammatical item distinct from THE, the problems pointed out in §1.3 can be solved: D_{pron} can differ from THE by other features (in addition to $[+E]/[+\emptyset]$):

- gender features (for English, Swedish)
- features responsible for clitic placement
- the special features that differentiate strong and weak forms
- Binding theory can make reference to D_{pron} (the index of $D_{\text{pron}P}$)

2. On the gap in the possible $D_{\text{pron}}+[NP\emptyset]$ combinations (section 1.3.3)

- (39) If there is no N-anaphora, the pronoun cannot be neontological, i.e.
 $D_{\text{pron}}[+\emptyset] \Rightarrow D_{\text{pron}}$ is anaphoric (referential anaphora)

2.1 Formal implementation using indices for referential anaphora

We may adopt the widespread assumption that the anaphoric use of pronouns (and, possibly, DPs in general), including the bound variable use, is marked by an *index* related somehow to D (it can be a feature on D, a null element in SpecDP, or in a projection above or below D; see Elbourne 2005; Schwarz 2009; Hanink 2017, 2021; Jenks 2018; Ahn 2019; Jenks & Konate 2022).

These indices, which we may call *anaphoric indices*, differ from the indices informally used to mark coreference or a bound variable relation in that:

- they only occur on anaphoric elements
- they occupy a distinct position in the tree and are interpretable by being mapped to an entity via the assignment function

$\Rightarrow D_{\text{pron}}[+\emptyset]$ is specified for having an anaphoric index

Anaphoric indices have also been proposed for articles restricted to anaphoric DPs, such as the strong articles of various West Germanic varieties.

Various implementations:

(i) The index as an additional argument of D

(i.1) in SpecDP

- (40) a. $[DP [the_{\text{weak}} s] NP]$ (Schwarz 2009)

$\llbracket the_{\text{weak}} \rrbracket = \lambda s \lambda P_{\langle e, st \rangle} : \exists ! x P(x)(s) . \iota x . P(x)(s)$

- b. $[DP i \llbracket the_{\text{strong}} s \rrbracket NP]$

$\llbracket the_{\text{strong}} \rrbracket = \lambda s \lambda P_{\langle e, st \rangle} : \exists ! x P(x)(s) \wedge x=y . \lambda y . \iota x . [P(x)(s) \wedge x=y]$

- (41) a. $[DP the_{\text{weak}} NP]$ (Jenks & Konate 2002)

- b. $[D^*P [D/idxP \emptyset] \llbracket D^* the_{\text{strong}} \rrbracket NP]$

$[D^*P [D/idxP [that \text{Index}]] \llbracket D^* \emptyset \rrbracket NP]$

(i.2) in a projection above D:

- (42) a. $[DP the_{\text{weak}} NP]$

b. $[D_{\text{deix}P} [D_{\text{deix}^0} \text{Index}] [DP [the_{\text{strong}} s] NP]]$ (Patel-Grosz & Grosz 2017)

(ii) The index in the restriction of D (Simonenko 2014, Hanink 2017) \Rightarrow no distinct denotation for THE:

- (43) $[DP D [idxP idx_{[\text{index}:i]} [NP]]]$

$\llbracket idx_{[\text{index}:i]} \rrbracket^g = \lambda x . x=g(i)$

$\llbracket idxP idx_{[\text{index}:i]} [NP] \rrbracket^g = \lambda x . \llbracket NP \rrbracket (x) \wedge x=g(i)$

Without deciding on a particular implementation, we may use a feature [*idx*], which can then be interpreted according to the preferred formal implementation

=> pronouns with referential anaphora have IDX (on D), neontological pronouns do not

Jenks & Konate (2022) use *idx* on D for referential anaphora and IDX on N for nominal anaphora, proposing that pronouns are ambiguous:

(44) [D, *idx*, ϕ] (referential-anaphoric pronoun)

[_{D/IdxP} Sg [masc [_{D,Idx} [[Idx D] 7]]]] = *he*₇

(45) [DP D_{def} [_{N/IdxP} N, *idx*₂, anaph]] (paycheck pronoun)

This year the **president** is a Republican. Next year **he** will be a Democrat

$g(2) = \lambda x. \lambda s. \text{President}(x)(s)$

For languages with grammatical gender, we have to add the possibility that *Idx*/the anaphoric feature occurs simultaneously on N/n (below N) and D. Using [+E] for N-anaphora, we have

Table II

	+ referential anaphora	- referential anaphora
+ N-anaphora	[D[+ <i>idx</i> ,+E] [_{NP} \emptyset +Phi]]	[D[+E] [_{NP} \emptyset +Phi]]
- N-anaphora	[D[+ <i>idx</i> ,+ \emptyset] [_{NP} \emptyset +/-Phi]]	–

(N.B.: Phi is a property of N or n and can be generated on n in the case of -N-anaphora)

Answer to the possible objection of ambiguity:

- (3rd person) pronouns are *reduced* forms for definite DPs

- reduction may also involve underspecified spell-out rules – maybe just D_{def} and \emptyset , or rules of *phrasal spell-out* (rules that target entire trees, taking precedents over rules targeting terminals, see Neeleman & Szendrői 2007)

- reduction occurs in the presence of a salient antecedent => the gap in the possible combinations

Aside on the use of IDX for nominal anaphora

The idea that N-anaphora also uses *idx* may be helpful in explaining why in DPs with partial ellipsis demonstratives are often found with the interpretation of THE; Romanian is particularly relevant here because it can also use the strong definite article *cel*, so demonstratives cannot be simply analyzed as PF-variants of THE in the context $[_{NP}\emptyset]$:

(46) Discuția despre pronume a fost mai interesantă decât [cea/aceea [_N \emptyset] despre aspect]
 discussion-the on pronouns has been more interesting than the/that on aspect

In such uses, DEM instead of THE may result from the incorporation of $n[+E] = n[+idx]$.

Note that, although here THE and DEM are in free variation, DEM cannot be used when there is no N-anaphora, except with relative clauses, in which case DEM represents the ‘bleached/determinative use’ of adnominal DEM licensed by relative clauses (see Giurgea & Panaitescu, this workshop)

(47) [context: no nominal antecedent for a +pl+fem N]

A adus toate {cele/*acelea} trebuincioase

has brought all the.FPL/those.FPL necessary.FPL

‘(S)he brought all the necessary things/stuff’

2.2 THE without *idx* in pronouns? On an unexpected difference between 3rd person pronouns and demonstrative pronouns

Patel-Grosz & Grosz (2017), discussing German: 3rd person personal pronouns differ from *der*-demonstrative pronouns by lacking the structure associated to referential anaphora (which corresponds to our *idx*):

- (48) a. [D_{deixP} D_{deix}⁰ [D_{detP} [D_{det0} the_{strong} S_r] [NP Ø]]] demonstrative pronouns
 b. [[D_{detP} [D_{det0} the_{weak} S_r] [NP Ø]]] personal pronouns

N.B. Further structure is assumed to account for strength distinctions among personal pronouns, following Cardinaletti & Starke 1999 (a ϕ -layer above D_{det} for clitic pronouns, a Σ -layer above ϕ for strong pronouns)

In our system, this would mean that personal pronouns would only instantiate the second column in Table II. This does not explain the gap in the second cell of the column (if the_{weak} is just a plain THE, as suggested by the representations). Moreover, it requires binding to refer to situation variables rather than referential indices => the system is not so much of a simplification, because referential indices should be replaced by indices on null situation pronouns in order to be able to formulate the binding principles

Their evidence for assuming the_{weak} for personal pronouns: PRON, unlike DEM, may refer to ‘inferables’ (entities with no salient antecedent but for which the context allows the accommodation of a referent of the relevant type – ‘bridging’/‘associative anaphora’):

- (49) a. Wenn ich schwanger werde, werde ich {**es** / # **das**} auf jeden Fall behalten. (Ge.)
 if I pregnant become will I it DEM on every case keep
 ‘If I get pregnant, I will definitely keep **it** (= the baby).’
 Ro.: Dacă sunt însărcinată, cu siguranță %**il** păstrez (***pe el**/***pe acesta**/***pe acela**)
- a’. Wenn ich ein Kind kriege, werde ich {**es** / **das**} auf jeden Fall behalten.
 if I a child get will I it DEM on every case keep
 ‘If I have a child, I will definitely keep **it**.’ (Patel-Grosz & Grosz 2017: ex. 34)
- b. Hans hat so sehr geblutet, dass {**es** / * **das**} durch den Verband gedrunken ist
 Hans has so much bled that it DEM through the bandage soaked is
 und sein Hemd verschmutzt hat. (Patel-Grosz & Grosz 2017: ex. 38a)
 and his shirt stained has
 ‘Hans bled so much that **it** (= the blood) soaked his bandages and stained his shirt.’
 Ro.: A sângerat atâta încât {%**pro**/***el**/***acesta**/***aia**} i-a trecut prin bandaj și i-a pătat cămașa.
- c. Manche Frauen sind schon seit mehr als zwanzig Jahren verheiratet und wissen noch
 many women are already for more than twenty years married and know still
 immer nicht, was {**sein** / * **dessen**} Lieblingsbier ist. (Patel-Grosz & Grosz 2017: ex. 38b)
 always not what his DEM.GEN favorite-beer is
 ‘Some women have been married for more than twenty years and still do not know what
his (= the husband’s) favorite beer is.’
 Ro.: % Unele femei sunt căsătorite de mai bine de 20 de ani și tot nu știu care e berea **lui**
 preferată / *care-i berea preferată **a aceluia/ăluia/acestuia**

Possible analysis within our system: [D_{pron} [NØ]_{anaph}], the N-concept becoming salient in the context, i.e. [D[+E][NPØ]] (neontological pronoun)
 => strong forms/demonstratives require [+idx]

However, Ro. does allow strong subjects in paycheck sentences, see (27) resumed below:

- (27) Unii nu-și mai găseau {**cărțile** /**cartea**} **de identitate**.
 some.PL not-3REFL.DAT more were-finding cards(F)-the card(F)-the of identity
 La mine, **pro/ea** stă mereu în portofel. (Ro.)
 at me 3FS stays always in wallet
 ‘Some couldn’t find **their identity cards**. I always keep **it** in the wallet.’
pro/ea = *cartea de identitate* ‘the identity card’

Why is then *el* impossible in (49)b? Possible explanation: in (27), the strong form is licensed by a [contrast] feature, my identity card contrasting with the others’

Note indeed that contrast licenses a demonstrative in (49)a:

- (50) [the speaker knows that the hearer knows that the speaker had had an abortion at some point]
 Dacă sunt însărcinată, **pe ăsta** cu siguranță îl păstrez
 if am.1S pregnant DOM this.MS with certainty CL.MS.ACC keep.1S
 ‘If I’m pregnant, I’ll definitely keep this one’
 (N.B. *this one* indicates N-anaphora)

For further discussion of the differences between weak, strong forms and demonstratives, see section 4

3. Further issues regarding N-anaphora in pronouns

3.1 On the type of N-anaphora involved in pronouns

Hankamer & Sag (1976): identity-of-sense anaphora can be of two types:

- deep anaphora (base-generated)
- surface anaphora (with internal structure and oblig. linguistic antecedents; analyzable as deletion)

N-anaphora may have extralinguistic antecedents (see (16)-(17)) but also allows complement remnants (see (36)-(37)) => it may rely on both mechanisms

For personal pronouns: as the entire complement of D is elided and extralinguistic antecedents are possible (see (16)), deep-anaphora cannot be excluded

If deep anaphora does not rely on the E-feature, we should replace the [+E] feature with a +[NØ]_{anaph} selectional feature on D_{pron} => maybe use selectional features on D for both types of [NØ] and require that empty Ns are selected by a functional item (as a licensing condition):

Table III

	+ referential anaphora	- referential anaphora
+ N-anaphora	[D[+idx, S=[NØ] _{anaph}] [NPØ _{anaph+Phi}]]	[D[S=[NØ] _{anaph}] [NPØ _{anaph+Phi}]]
- N-anaphora	[D[+idx, S=[NØ] _{non.anaph}] [NPØ _{+/-Phi}]]	–

Is there any evidence for surface anaphora?

An affirmative answer depends on the way of analyzing possessive dative clitics, which may be associated to personal pronouns possessors in Romanian (Giurgea 2010). If the possessive relation requires a coindexed element inside the possessee – especially when the possessor is interpreted as an argument of the N, as in (51) – we must conclude that pronouns have the relevant internal structure:

- (51) Știi ce înălțime are oglinda? Da, **i-am** măsurat-**o**
 know.2S what height has mirror(F)-the yes CL.3S.DAT=have.1 measured=CL.3FS.ACC
 ‘Do you know the height of the mirror (lit. what height the mirror has)? Yes, I measured it’
 i... o = i_i ... [înălțimea Ø_i]
 CL.DAT CL.ACC CL.DAT height-the

3.2 On the blocking of THE ONE with total ellipsis

- (52) a. John praised the movie, I criticized it/*the one.
 b. Most books contain a table of contents. In some, it/*the one is at the end.

Exception: in postcopular position of identificationals:

- (53) A: I may have finally guessed the song you praised yesterday [uttered while putting a song on]
 B: Yes, that’s **the one** / it.

Is *one* an overt deep anaphora?

Llombart-Huesca (2002) argues that *one* is rather the spell-out of a Num head used when the conditions that license an empty Num are not fulfilled (see, among others, the incompatibility of *one* with mass nouns).

Giurgea (2010): *one* spells-out n onto which an overt Num lowers at PF (cf. the position of prenominal adjectives, which precede *one*).

=> *one* may be analyzed as n[+E]

Total ellipsis: no overt adnominal constituent => it is more economical to elide the entire complement of D => [+E] is on D => D_{pron}

But, if number is generated/interpretable below D, this predicts that a neontological pronoun should have the number of its antecedent

Sometimes, the number must be preserved to allow a neontological reading (cf. Giurgea & Ivan 2023a):

(54) a. Mary forgot [the **book** she had to translate]. I also forgot **it**.

Ro.: Maria a uitat [**cartea** pe care trebuia s-o traducă]. Și eu am uitat-**o**.

it/o = *the book I had to translate* = D_{def} [*book x had to translate*], where *x* is bound by the subject: Engl.: %, Ro.: ✓

b. Mary forgot [**the book** she had to translate]. ?? I also forgot **them**.

Ro.: Maria a uitat [**cartea** pe care trebuia s-o traducă]. ?? Și eu **le-am** uitat.

them/le = *the books I had to translate* = D_{def} [*books x had to translate*], where *x* is bound by the subject: Engl. *, Ro.: ??

c. Mary forgot [**the books** she had to translate]. ?? I also forgot **it**.

Maria a uitat [**cărțile** pe care trebuia să le traducă]. ?? Și eu am uitat-**o**.

it/o = *the book I had to translate* = D_{def} [*book x had to translate*], where *x* is bound by the subject: Engl.: */%??, Ro.:??

But see (27) for an example where the number is allowed to be different. Moreover, one cannot use *one* as an alternative in case of number mismatch:

(55) * Mary forgot [the **book** she had to translate]. I also forgot **the ones**.

=> maybe number is generated or at least interpreted above D, see Sauerland's (2003) Φ P on top of DP.

On this view, *one* insertion may continue to be related to the number affix, but the feature associated to this affix would not be interpreted inside the complement of D => no problem for ellipsis

What about the exception in (53)?

Maybe *the one* is used in order to stress the opposition between a directly referential pronoun (*that*) and a pronoun interpreted as an 'attributive definite description' in the sense of Donnellan. See the following attested example:

(56) Kids have a double emotional struggle dealing with divorce on top of adolescence. Why send only one child to stay with his dad on Thanksgiving? If there is any holiday in America that is spent with groups of family and friends, that is **the one**. (usnews.nbcnews.com, in COCA)

One signals the presence of N-anaphora and *the* allows/involves absence of [idx] => *the one* overtly indicates that the interpretation is attributive

No comparable use in Romanian (and other lgs without a pro-N like *one*, as far as I know):

(57) (...) * asta e cea
this is the.FS

Why? Presumably, no position for the [E] feature => no Num head (if the analysis of *one* as n[+E]+cliticized-Num is correct): cf. Bouchard (2002) for the idea that Number is generated on D in Romance, as opposed to English (cf. also Cyrino & Espinal 2019)

3.3 On grammatical gender pronouns without N-anaphora and the issue of binding (Giurgea & Ivan 2023b, forth.):

- So far grammatical gender on pronouns has been explained by N-anaphora ($[_{N\emptyset}]_{\text{anaph}}$)
- However, for some cases of bound variable pronouns, the recovery of a nominal property is not always licit:

- (58) Doar papagalul \hat{n} i ține minte pe cei care **I**-au atacat. (Ro.)
 only parrot(M)-the CL.ACC keeps mind DOM the.MPL which 3MS.ACC-have attacked
 ‘Only the parrot remembers those who attacked it.’
 - sloppy reading: ONLY [the parrot] [λx . x remembers those who attacked x]
 \neq ONLY [the parrot] [λx . x remembers those who attacked the parrot x]

~ Kratzer’s (1998, 2009) fake indexicals

- For certain fake indexicals, there is Agree with the binder (see (59), where the sloppy reading is possible only if the V agrees in Person with the binder) \Rightarrow the pronoun is born with unvalued features:

- (59) a. **Eu** sunt singura care **mă** îndoiesc de copilul **meu**. (Ro.)
 I am only(F)-the who REFL.1S doubt.1S of child-the my
 ‘I am the only one who has doubts about **her/my** child.’ (✓ strict, ✓ sloppy)
 b. **Eu** sunt singura care **se** îndoiește de copilul **meu**.
 I am only-the that REFL.3SG doubt.3SG of child-the my
 ‘I am the only one who has doubts about **my** child.’ (✓ strict, * sloppy)

- But fake indexicals are also found in environments where there is no Agree chain:

- (60) Numai **eu** mă supăr pe **colegii** care-**mi** critică articolele.
 only I REFL get-angry.1SG at colleagues-the who-me.DAT criticize articles-the
 ‘Only I get angry at the colleagues who criticize my articles’
 possible interpretation:
 ‘The others_i don’t get angry at the colleagues who criticize **their**_i articles.’
 ONLY (I) (λx . x gets angry at the colleagues who criticize x’s articles)
 (61) **Du** bist der einzige, der glaubt, dass **jemand** **deinen** Aufsatz versteht (Ge.)
 you be.2S the only.one who believes that somebody your paper understands
 ‘You are the only one who thinks that somebody understands your paper.’ (Kratzer 2009:212)

Kratzer (2009): [1st] and [2nd] person features here are bound by indexical context shifters
 But (58) is also such a case (no Agree chain, because the subject and the verb of the embedded clause have different ϕ -features), yet it is Gender that is not interpreted, and Gender cannot be bound by an indexical context shifter

- \Rightarrow Gender is not triggered by an elided N, its interpretative role is to indicate co-indexation
- \Rightarrow there is an LF-matching operation that checks and deletes ϕ -features on bound pronouns, distinct from syntactic Agree:

- (62) a. In a configuration $DP(+\phi_1) \lambda_i [\dots [[Id_xj] [D[Num/n \phi_2]]] \dots]$,
 j can be equated with i iff the ϕ -feature sets ϕ_1 and ϕ_2 match (i.e. for each feature found in both sets, the value in ϕ_1 is the same as the value in ϕ_2)
 b. After binding applied according to (62)a, i.e. in the configuration $[\lambda_i [\dots [[Id_xi] [D[Num/n \phi_2]]] \dots]$,
 ϕ_2 can be erased

- \Rightarrow bound variable pronouns can instantiate a configuration without N-anaphora (in spite of grammatical gender) – Gender is either on $[_{N\emptyset}]_{\text{non-anaph}}$, or on D and there is no N at all

N.B. Hinterwimmer (2015): in bound variable pronouns, the empty N is occupied by the index, being interpreted as the property $\lambda x.x=i$ (where i is the index). Under this hypothesis, the rule in (62) can be rewritten as

- (62) a. In a configuration $DP(+\varphi_1) \lambda_i [\dots [D[{}_{NP} j (\varphi_2)]] \dots]$,
 j can be equated with i iff the φ -feature sets φ_1 and φ_2 match (i.e. for each feature found in both sets, the value in φ_1 is the same as the value in φ_2)

4. On the multiple series of forms corresponding to THE+total ellipsis and demonstrative pronouns interpreted as THE+total ellipsis

We have seen that the existence of multiple series corresponding to THE+total-ellipsis is no longer a problem once we admit that D_{pron} must be distinct from THE. There may be various D_{pron} heads, differentiated by syntactic and semantic features.

It is straightforward how to implement differences in terms of animacy or neontological (paycheck) readings. What is more debatable is how to analyze the differences in terms of accessibility of the antecedent (see Ariel 1990, Gundel et al.'s 1993 'in focus', etc.).

4.1 Giurgea & Ivan (2023a) on Romanian

(i) 3rd person *pro* vs. overt subjects

- *pro* has discourse-prominent antecedents => [G-topic] feature (~ Frascarelli 2007: *pro* must agree with a local Aboutness-topic)
- *pro* may be genderless (=> the 'anominal' use, see (28))

(ii) direct object clitics vs strong direct objects (relying on a corpus research + the authors' intuitions)

- In most of the examples the strong form bears a [Contrast] feature
- Strong forms seem to disallow neontological (paycheck) readings (see (26) above) => they do not spell-out $[D[{}_{N\emptyset}]_{\text{anaph}}]$
- Strong forms have a strong preference for animate reference, but inanimate reference is not excluded
- Sometimes the strong form does not involve any contrast or reduced accessibility of the antecedent, but appears to be chosen in order to clarify the word order pattern of the sentence: the strong accusative is a deaccented quirky subject that occurs postverbally, there is mirative focus on a preverbal constituent or verum focus on the verb, presumably the strong form is used to overtly indicate the VS inversion characteristic of focus fronting (cf. the same behavior of nominative subjects with verum focus, see Giurgea & Mîrzea Vasile 2017):

- (63) a. Asta îl ardea pe el! (M. Preda, *Opere I*, 57)
 this CL.3MS.ACC burned.IMPF.3SG DOM him
 'That's what he cared about! (lit. That's what was burning him!)
- b. N-o muncea pe ea grija de ruptura ei, (...)
 not-3FS.ACC tormented.IMPF.3SG DOM her care-the of breaking-the her.GEN
 'It's (definitely) not that she cared of her getting broken...'

- As in other lgs (see Wolter 2006 on English, Hoge this workshop), strong forms may involve deixis in the narrow sense (new discourse referent established by ostension), in which case they can only be +human. In this use, they instantiate a configuration with $[{}_{N\emptyset}]_{\text{non-anaph}} = +\text{human}$.

But this use is more restricted than in English, because normally demonstrative pronouns are used in deixis (in English, this is impossible because singular demonstrative pronouns cannot be +human) => issue: how do these forms differ from pronominal demonstratives?

- (64) [context: m + other male individuals, m not mentioned before]
- a. Întreabă-l pe el_{[m]}} b. Întreabă-l pe ăla_{[m]}}
 ask.IMPV.2S-CL.ACC DOM him ask.IMPV.2S-CL.ACC DOM that.MS

Structure: [+deixis] (which can be represented via a predicate that locates the referent based on the gesture, see Ahn 2022), but no distance feature and, possibly, no additional Dem layer (if Dem involves an additional structural layer in Romanian, see Giurgea 2024)

In English, deictic *he/she* may have the same structure as demonstratives (Ruys 2023)

4.2 On German D-pronouns (*der, die, das*) (demonstrative pronouns unmarked for distance) vs. 3rd person personal pronouns (*er, sie, es*) and proximal pronominal Dem (*dieser, -e, -es*):

Patil et al. (2023): both D-pronouns (*der, die, das*) and proximal Dem-pronouns (*dieser, -e, -es*) avoid reference to the most prominent referent, but D-pronouns use a prominence hierarchy which includes ‘perspectival centers’:

- (65) a. D-pronouns require that there should be an individual (or a restrictor set of a quantifier) that is distinct from the individual *x* denoted by the D-pronoun and that is *more prominent* than *x*
 b. Prominence Hierarchy:
 Speaker (if somehow made salient) / Author of a reported speech act > (highest) Attitude-holder > Topic > other (cf. Hinterwimmer & Bosch 2017: (43))

First, D-pronouns were described as anti-topical (Bosch & Umbach 2006, Hinterwimmer 2015):

- (66) Paul_i wollte mit Peter_j laufen gehen. Aber {er_{i,j}/der*_{i,j}} war leider erkältet
 Paul wanted with Peter run go but he/der was unfortunately gotten-cold
 ‘Paul wanted to go running with Peter. But {he/DEM} had a cold’ (< Bosch et al. 2003)

But Hinterwimmer & Bosch (2016) observed that the antecedent can be a topic, if the Speaker expresses an evaluation, which makes him salient as a ‘perspectival center’:

- (67) Als Peter_i abends nach Hause kam, war die Wohnung wieder in einem fürchterlichen Zustand.
 ‘When Peter_i came home in the evening, the flat was in a terrible state again.’
 a. {*Der_i/Er_i} musste erst mal drei Stunden putzen. (Hinterwimmer & Bosch 2016:ex.18)
 ‘He first had to clean up for three hours’
 b. {*Der_i/Er_i} hatte doch gestern erst aufgeräumt.
 ‘He had only tidied up yesterday, after all.’
 c. {Der_i/Er_i} kann sich einfach nicht gegen seinen Mitbewohner durchsetzen.
 ‘He is simply unable to stand his ground against his flatmate.’
 (68) Lass uns mal über Otto_i reden. Otto_i ist der fähigste Verkäufer, den ich kenne. {Der_i/Er_i} konnte sogar einem Blinden einen HD-Fernseher verkaufen.
 ‘Let’s talk about Otto. Otto is he most gifted salesman I know. He could even sell a HD TV-set to a blind man.’

The subject (attitude-holder argument) of propositional attitude verbs is the perspectival center. Embedding of propositional attitude verbs => the highest attitude-holder is the perspectival center:

- (69) a. Peter_i glaubt, {er_{i,j}/der_j*_i} könne besser Schach spielen als Maria.
 ‘Peter believes he could play chess better than Maria’
 b. Maria_i behauptet, dass Peter_j glaubt, {er_j/der_j} könne besser Schach spielen als sie_i.
 ‘Maria claims that Peter believes he could play chess better than her’

=> the idea that D-pronouns are ‘anti-logophoric’ (they avoid discourse referents as antecedents that function as perspectival centers), where perspectival centers = the Speaker, the Author of a reported speech act/judgment, attitude-holders (subjects of propositional attitude predicates)

Note that (69)b shows that D-pronouns may fail to obey principle C => they are different from Dem+[NØ], as DPs headed by Dem do obey principle C.

Hinterwimmer & Bosch (2016) propose, indeed, a semantic entry specific to the *D-pronouns*
 => we have another instance of a D_{pron}, a definite D that selects [NØ]

Dieser ‘this’ differs from D-pronouns in register (they prefer a formal/high register) and in not being sensitive to implicit perspectival centers:

- (70) Peter_i will einen Benz kaufen. **Der_i/*Dieser_i** hat wohl zu viel Geld.
 Peter wants a Mercedes-Benz buy *der/dieser* has apparently too much money
 ‘Peter wants to buy a Mercedes. He apparently has too much money’ (Patil et al. 2023:ex.1)

4.3 On Romanian demonstrative pronouns

Giurgea (2010): demonstrative pronouns in Romanian and French, even when their gender relies on N-anaphora, are sometimes **not paraphrasable by Dem+overt NP**, but rather **by THE+overt NP** => they are special D_{pron}, different from personal pronouns, at least sometimes, by a reduced degree of accessibility/prominence of the antecedent – anti-topical (in addition, they may also be used to facilitate reference to inanimates via strong forms):

- (71) Ainsi, que ce fût dans la sphère du commerce extérieur ou dans celle du commerce intérieur, entre les provinces ou à l’intérieur de **celles-ci**, la politique du gouvernement resta une politique de laissez-faire. (Fr. ; Rostovtseff, *Histoire économique et sociale de l’Empire Romain*, trad. fr. Odile Demange, 1988, p. 135)
 ‘Thus, whether in the sphere of foreign trade or in that of internal trade, between the provinces or within **them**, the policy of the government remained a policy of laissez-faire.’
 = ou à l’intérieur **des provinces** ‘or within the provinces’
 ≠ ou à l’intérieur **de ces provinces** ‘or within these/those provinces’ : using Dem would suggest a contrast with other provinces, but the DP refers to *all* the provinces of the Roman Empire
- (72) (...) les dernières pensées du mourant au moment de la mort déterminent son statut après **celle-ci**
 ‘The dying person’s last thoughts at the time of death determine his status after **it** (=after death).’
 (Fr. ; Arnaud Desjardins, *Pour une mort sans peur*, p. 97)
 = a. ... après **la mort** ‘after (the) death’
 ≠ b. ... après **cette mort(-ci)** ‘after that/this death’
- (73) Contabilitatea împrumuturilor și datoriilor asimilate **acestora** se ține pe următoarele categorii (Ro.) (www.contacont.ro)
 following-the categories
 ‘The bookkeeping of loans and of the debts assimilated to **them** is divided into the following categories’
 = a. Contabilitatea împrumuturilor și datoriilor asimilate **împrumuturilor** (...) ‘the bookkeeping of loans and of the debts assimilated to (the) loans’
 ≠ b. Contabilitatea împrumuturilor și datoriilor asimilate **acestor împrumuturi** ‘the bookkeeping of loans and of the debts assimilated to these loans’
- (74) Multe cărți au un sumar. În unele, **acesta** este la sfârșit.
 many books have a table-of-contents in some this^L is at end
 ‘Many books have **a table of contents**. In some, **it** is at the end’
 = a. (...) în unele, **sumarul** este la sfârșit ‘in some, the table of contents it at the end’
 ?≠ b. (...) în unele, **acest sumar** este la sfârșit ‘in some, this table of contents it at the end’

Here, Dem+NP (*acest sumar*) gives the impression that *sumar* ‘table of contents’ is presented as a new notion, as if used in quotation marks: ~ ‘this thing called *sumar*’; cf. Giurgea & Panaitescu (this workshop) and Bombi (2023) on anaphoric demonstratives used for inherent uniques, in cases when the Addressee is supposed not to be familiar with the referent (not aware of its existence).

No such special meaning is assigned to the pronoun *acesta* ‘this^L’ in (74).

Experimental results (see 4.4 below and the Appendix, on the experiments):

	choice experiment	acceptability (1-7 scale)
<i>sumarul</i> ‘the table of contents’	76%	6.48
<i>acesta</i> ‘this ^L ’	60%	6.38
∅	48%	5.46
<i>acest sumar</i> ‘this table of contents’	30%	5.78
<i>el</i> ‘3MS.NOM’	16%	5.2
<i>ăsta</i> ‘this ^S ’	0%	2.44

This special use of Dem-pronouns seems to be restricted to the *long* forms (which provides further support for the idea that Dem-pronouns may be special items, distinct from adnominal Dems):

- (75) # Multe cărți au un sumar. În unele, **ăsta** este la sfârșit.
many books have a table-of-contents in some this^S is at end
- (76) # Contabilitatea împrumuturilor și datoriilor asimilate **ăstora** (...)
bookkeeping-the loans-the.GEN and debts-the.GEN assimilated these^L.DAT

Note: Romanian demonstrative pronouns (which show a binary proximal–distal system) have two series of forms – long, high-style and short, colloquial, sometimes impolite:

(N-Acc. sg. forms:)	long		short	
	masc.	fem.	masc.	fem.
proximal	acesta	aceasta	ăsta	asta
distal	acela	aceea	ăla	aia

The contrast is also found with adnominal demonstratives (with the further complication that in addition to all these forms, which appear after N+def, there is a set of pronominal demonstratives – sitting in D – which lack the final *-a*: *acest*, *această* ‘this.M/F’, *acel*, *aceia* ‘that.M/F’; for them, no short form exists in the standard language).

The fact that in (71)-(76) the Dem-pronoun is not simply the result of combining the adnominal Dem with [N∅]_{+anaph} is supported by the inappropriateness of paraphrases of the type Dem+one in English:

- (74) # Many books have **a table of contents**. In some, **this one** is at the end.

The contrast between (74) and (75)-(76) support the following empirical generalization:

- (77) THIS^L can spell-out a special D_{pron} whereas THIS^S always spells-out a regular Dem (+[N∅]).

More specifically, as we will show below, the data support the following **generalizations about pronominal demonstratives in Romanian**:

- (78) a. THIS^L can represent a special D_{pron} used to avoid the most prominent referent, where perspective is not relevant for prominence: = German *dieser*
- b. The short forms (THIS^S, THAT^S) are used when there is a contrast between the referent and other referents with the same nominal property (when applicable: in case of N-anaphora), just like adnominal Dems => they spell-out regular Dems in the context [_NP∅] (‘regular’ = no special semantics)
- c. The short forms can also be used for prominent antecedents in contexts of speaker’s evaluation, like German *der*, but they are not used for topic-antecedent avoidance
=> we propose that the evaluative use of short forms relies on the evaluative use of adnominal Dems (see the emotive use discussed in Giurgea & Panaitescu, this workshop) => again, short forms are regular Dems

- First, we checked the Romanian versions of some of the examples in Hinterwimmer (2015), Hinterwimmer & Bosch (2016, 2017).

- For the claim that short forms correspond semantically to adnominal Dems, being used in contexts of contrast with other referents with the same nominal property, we tested examples with inanimates (see section 4.5). The reason is that there is a strong tendency to interpret the short forms used for persons as impolite, because

(i) short forms in general are condemned by the norm, and

(ii) short forms can also have the evaluative use, which is often negative.

We will present our intuitions about the Romanian correspondents of various German examples and, for some of them, also the experimental results. For the design of the experiments, see the appendix. For now, we just note that we carried out 2 experiments. In both, the required anaphoric relation was indicated (the antecedent was signaled with bold and the informants were asked to assess the examples with the interpretation in which a bold-face pronoun resumes the bold-faced antecedent):

(i) Choice experiment: the informants were asked to select between 1 and 3 possible continuations, from a set of 5 to 6 possible variants

(ii) Acceptability experiment: the informants were asked to rate the 5-6 possible continuations on a 1-7-rung Lickert scale

- **Examples where Dem refers to a less prominent antecedent** – Romanian versions of examples in Hinterwimmer (2015), Hinterwimmer & Bosch (2016, 2017):

(79) **Paul**_i voia să iasă la jogging cu **Petre**_k. Dar din păcate Ø_{i,?k}/ **el**_{i/k}/ **acesta**_k/??**ăla**_k/??**ăsta**_k era răcit.
he this^L/ that^S/ this^S

‘**Paul** wanted to go out for jogging with **Peter**. But unfortunately **he** had a cold.’

Our intuitions: *acesta* ‘this^L’: high register, otherwise unmarked

short Dem forms: colloquial + appropriate in an enriched context, where there is contrast between Petre and other individuals (not Paul) (long forms *acela* are also appropriate in this context, + high register)

ăla ‘that^S’: maybe possible, in the colloquial register, also without this contrast:

= THAT+[NPØ]_{non-anaph}=human, the contrast being with another person (Paul); for this interpretation, the distal seems to be better than the proximal, probably because the referent is distant from the place (and time) of the utterance

Experimental results, where we tested the form used to refer to *Petre*, the less prominent antecedent:

(i) The choice experiment:

- *acesta* ‘this^L’: 66%

- *el* ‘he’: 64%

- Ø: 60%

- *acela* ‘that^L’: 14%

- *ăla* ‘that^S’: 12%

- *ăsta* ‘this^S’: 8%

(ii) The acceptability experiment (7-rung scale):

- *acesta* ‘this^L’: 6.28

- *el* ‘he’: 6.24

- Ø: 4.98

- *acela* ‘that^L’: 4.12

- *ăla* ‘that^S’: 2.38

- *ăsta* ‘this^S’: 2.86

General observations: short forms got reduced acceptability overall, because of the fact that they are condemned by the norm. In the choice experiment, they also get lower numbers, for the same reason, but not so much as in the acceptability experiment => it will be more interesting to compare the differences in

the acceptability of short forms between various conditions, rather than the differences between short and long forms.

- (80) [Pe pacient]_i îl consultă [medicul de gardă]_k. Acesta_k/?Ăsta_k/??Ăla_k este cardiolog.
 DOM patient CL.-ACC-examines physician-the of guard this^L/this^S/that^S is cardiologist
 ‘The patient is being examined by the doctor on duty/The doctor on duty is examining the patient.
 He is a cardiologist.’
 Our intuitions: here, as a colloquial form, *ăsta* ‘this^S’ is more appropriate than in (79) because the situation described is close to the utterance situation; *ăsta* ‘this^S’ is also appropriate if there is a contrast between the doctor on duty and other doctors.

- (81) Petru a pus [fiecărui student]_i (câte) o întrebare la care acesta_i/?ăla_i/acela_i/*ăsta_i n-a știut să răspundă
 each.DAT student DIST this^L/that^S /that^L/ this^S
 ‘Petru asked [each student]_i a question to which he_i could not answer’.

Experimental results (the choice experiment):

- Ø: 58%
- *el* ‘he’: 46%
- *acesta* ‘this^L’: 42%
- *acela* ‘that^L’: 16%
- *ăsta* ‘this^S’: 4%
- *ăla* ‘that^S’: 2% (obs.: very few short forms because the text suggests the formal register)

Obs.: Here we have a bound variable reading, but this does not exclude a Dem+[NØ] analysis, because Dem+overt N is possible, see (81)’; this is why *acela* ‘that^L’ and the short forms are not excluded.

- (81)’ Petru a pus [fiecărui student]_i (câte) o întrebare la care [acel/?acest student]_i n-a știut să răspundă.
 that^L?/this student

Experimental results (the choice experiment):

- *studentul* ‘the student’: 64%
- *acel student* ‘that student’: 42%
- *el* ‘he’: 32%
- *acest student* ‘this student’: 16%

- (82) Când un țaran_i are un măgar_k, {acesta_k/*i/??ăsta_k/??ăla_k/??acela_k} îl lovește
 when a farmer has a donkey this^L /this^S /that^L/ that^S him hits
 : again, *ăla* ‘that^S’ and *ăsta* ‘this^S’ are possible if the donkey is contrasted with other animals

With an overt N, the use of the distal is preferred:

- (82)’ Când un țaran_i are un măgar_k, {acel măgar_k/?acest măgar_k} îl lovește.
 when a farmer has a donkey that donkey this donkey him hits

N.B. In donkey-sentences, the relevant topic is the restrictor set of situations associated to the highest indefinite (Hinterwimmer 2015).

- Examples where German allows D-pronouns with topical antecedents because there is evaluation by the speaker (the Speaker is activated as a perspectival center, see Hinterwimmer & Bosch 2016):

Here, short forms are used in Romanian to convey the evaluative flavor (in part, this may be due to the fact that the examples occur in conversations, as short forms are colloquial; but there are stronger differences wrt. (79)-(82)):

- (83) Hast du was von Peter gehört? (German, Hinterwimmer 2015:ex. 56)
 ‘Did you hear any news about Peter?’
 B: Ja, er war gestern auch auf der Party. Der hat schon wieder eine neue Freundin.
 yes he was yesterday also at the party D-Pro has already again a new girlfriend.
 ‘Yes, he was at the party yesterday, too. He has yet another new girlfriend’

- (83) Da, Ø_i a fost ieri la petrecere. Ø_i/ **Ăsta_i**/?**acesta_i**/***acela_i**/?**ăla_i** deja are o nouă prietenă.
 yes has been yesterday at party this^S / this^L / that^L / that^S already has a new friend.F

Experimental results:

(i) The choice experiment:

- Ø: 78%
- *el* 'he': 68%
- *acesta* 'this^L': 30%
- ***ăla* 'that^S': 22%**
- ***ăsta* 'this^S': 20%**
- *acela* 'that^L': 6%

(ii) The acceptability experiment (7-rung scale):

- *el* 'he': 6.22
- *acesta* 'this^L': 5.24
- Ø: 4.74
- *ăsta* 'this^S': 3.1
- *acela* 'that^L': 2.66
- *ăla* 'that^S': 2.06

- (84) Lass uns mal über **Otto_i** reden. **Otto_i** ist der fähigste Verkäufer, den ich kenne. {**Der_i/Er_i**} konnte sogar einem Blinden einen HD-Fernseher verkaufen. (Ge., Hinterwimmer & Bosch 2016, ex.16a)
 'Let's talk about **Otto_i**. **Otto_i** is the most gifted salesman I know. **He** could even sell a HD TV-set to a blind man.'

- (84) (..) Otto_i e omul cel mai priceput la vânzări pe care-l cunosc. Ø_i/**Ăsta_i**/?**Ăla_i**/?**Acesta_i**/ ***Acela_i** ar putea și să-i vândă un televizor unui orb. (Ro.)
 this^S/ that^S/ this^L / that^L

Experimental results:

(i) The choice experiment:

- Ø: 78%
- ***ăsta* 'this^S': 48%**
- *acesta* 'this^L': 40%
- ***ăla* 'that^S': 32%**
- *acela* 'that^L': 10%

(ii) The acceptability experiment (7-rung scale):

- *acesta* 'this^L': 5.88
- Ø: 5.02
- *acela* 'that^L': 3.44
- *ăsta* 'this^S': 3.3
- *ăla* 'that^S': 2.92

- (85) Als **Peter_i** abends nach Hause kam, war die Wohnung wieder in einem fürchterlichen Zustand
 'When **Peter_i** came home in the evening, the flat was in a terrible state again.'

{**Der_i/Er_i**} kann sich einfach nicht gegen seinen Mitbewohner durchsetzen.

'**He** is simply unable to stand his ground against his flatmate.' (H & Bosch 2016:ex.18c)

- (85) Ø/**Ăsta**/?**Acesta** pur și simplu nu e în stare să se impună în fața colocatarului său (Ro.)
 this^S/this^L

Experimental results:

(i) The choice experiment:

- *el* 'he': 88%
- Ø: 80%
- ***ăsta* 'this^S': 34%**
- *acesta* 'this^L': 32%

- *ăla* ‘that^S’: 4%
- *acela* ‘that^L’: 0%

(ii) The acceptability experiment (7-rung scale):

- *el* ‘he’: 6.36
- *acesta* ‘this^L’: 6.12
- Ø: 5
- *acela* ‘that^L’: 3.24
- ***ăsta* ‘this^S’: 3.24**
- *ăla* ‘that^S’: 2.5

(86) A: Wo ist eigentlich Karin_i? Die_i habe ich lange nicht gesehen. (Ge., H&B 2016, ex. 16c)
 ‘Where is Karin_i, anyway? I haven’t seen her_i (D-pro) for a while.’

B: {Die_i/Sie_i} ist schon gegangen. ‘She has already left.’

(86)’ A: Unde e Catrina_i? N-am mai văzut-o_i de ceva vreme. (Ro.)

B: Ø_i /Ea_i / ?**Asta_i** / ?**Aia_i** / ***Aceasta_i** deja a plecat.

she this^S that^S this^L

asta, aia: emotive or contrast with other people in the described situation (e.g. others who have not left)

- Examples in Hinterwimmer & Bosch (2016) which **show that the anti-topicality constraint is a weak pragmatic bias, which can be overridden by plausibility** considerations – see (87)b vs. (87)a:

(87) a. [**Der neue Assistenzarzt**]_i untersuchte [**den Patienten auf Zimmer 3**]_k. {**Der_k/Er_{i,k}**} war sehr geduldig. (H & B 2016, ex. 33a)

‘[**The new assistant doctor**]_i examined [**the patient in room 3**]_k. **He** was very patient.’

b. [**Der neue Assistenzarzt**]_i untersuchte [den Patienten auf Zimmer 3]_k. {**Der_i/Er_i**} sollte erst mal mit den leichten Fällen anfangen. (H & B 2016, ex. 34a)

‘[**The new assistant doctor**]_i examined [the patient in room 3]_k. **He** had to start with the easy cases first.’

Ro.: like in German, *acesta* ‘this^L’ cannot refer to the doctor in (87)a but it can in (87)b:

(87)’ [**Doctorul cel nou**]_i l-a examinat pe **pacientul din camera 3**. **Acesta_i/?Ăsta_i** trebuia să înceapă cu this^L /this^S

cazurile mai ușoare.

‘[**The new doctor**]_i examined **the patient in room 3**. **He_i** had to start with the easier cases.’

But: *ăsta* ‘this^S’ here requires a context with a contrast with other doctors or an evaluative reading (e.g. ‘he should have started with the easy cases!’);

acesta ‘this^L’: not necessarily a contrast with other doctors

Experimental results – the choice experiment:

- *el* ‘he’: 76%
- ***acesta* ‘this^L’: 70%**
- **Ø: 48%**
- *ăsta* ‘this^S’: 6%
- *acela* ‘that^L’: 4%
- *ăla* ‘that^S’: 0%

Note that Ø got only 48%, presumably because the antecedent *doctorul cel nou* ‘the new doctor’ is not yet an established discourse topic

Overall comparison of the **experimental results for person-referring pronouns**:

(i) The choice experiment:

	<i>ăsta</i> ‘this ^S ’	<i>ăla</i> ‘that ^S ’	<i>acesta</i> ‘this ^L ’	<i>acela</i> ‘that ^L ’	<i>el</i>	Ø
evaluative (+prominent ant.)	34%	19.3%	34%	5.33%	78%	79%
less prominent antecedent	6.66%	7.3%	72%	20%	67%	51.3%

(ii) The acceptability experiment:

	<i>ăsta</i> ‘this ^S ’	<i>ăla</i> ‘that ^S ’	<i>acesta</i> ‘this ^L ’	<i>acela</i> ‘that ^L ’	<i>el</i>	Ø
evaluative (+prominent ant.)	3.21	2.49	5.75	3.11	6.29	4.92
less prominent antecedent	2.37	2.19	6.46	4.13	6.26	4.71

An important difference between Romanian and German is that Romanian Dem-Pronouns always obey principle C, while German D-pronouns do not:

- (88) [Von jedem Politiker]_i wurde schon einmal behauptet, dass **der**_i/er_i korrupt ist. (Ge.)
of every politician was already once claimed that *der*/he corrupt is
‘Every politician was claimed to be corrupt at least once in the past.’ (Hinterwimmer 2015:62d)
- (88) Despre [fiecăre politician]_i s-a spus cândva că {Ø_i/***acesta**_i/***ăsta**_i/***acela**_i/***ăla**_i} e corupt (Ro.)
- (69) b. Maria_i behauptet, dass Peter_j glaubt, {er_j/**der**_j} könne besser Schach spielen als sie_i. (Ge.)
‘Maria claims that Peter believes **he** could play chess better than her.’
- (69) Maria afirmă că **Petre**_i crede că {Ø_i/el_i/***acesta**_i/***ăsta**_i/***acela**_i/***ăla**_i} ar juca mai bine șah decât ea.
- (89) [Jede Mathematikerin]_i wirkte auf Paul_j, als wäre {sie_i/**die**_i} kluger als er_j. (Ge., H&B 2016,(27))
‘[Every mathematician]_i gave Paul_j the impression that **she**_i was smarter than him_j.’
- (89) [Fiecăre matematiciană]_i i-a lăsat lui Paul impresia că Ø_i/ea_i/***acesta**_i ar fi mai deșteaptă ca el.

The only ex. where Dem-Pron is (almost) acceptable has the pronoun inside an embedded relative => (structural) distance alleviates/suspends the condition C violation:

- (90) ?[Fiecăre student]_i a fost întrebat un lucru de care **acesta**_i nu-și mai amintea.
every student has been asked a thing of which this^L not-3REFL.DAT any-longer recalled
‘Every student was asked a thing he could not recall’

4.5 Experimental results on Romanian inanimate pronominal demonstratives

Due to the strong bias towards an evaluative reading for human referents, we tested the difference between [+contrast-with-other-Ns] and [-contrast-with-other-Ns] for *inanimate* referents.

In all the examples, the pronoun is anaphoric and the antecedent is in a *non-prominent position*. The two conditions are differentiated as +/-contrast (**contrast** = contrast with other entities that satisfy **the same NP-property**).

Ex.

no-contrast:

- (91) Automobilul a ricoșat într-**un camion**, din nefericire. **Acesta** s-a răsturnat.
Automobilul a ricoșat într-**un camion**, din nefericire. **Ăla** s-a răsturnat.
Automobilul a ricoșat într-**un camion**, din nefericire. **Ăsta** s-a răsturnat.
Automobilul a ricoșat într-**un camion**, din nefericire. **Acela** s-a răsturnat.
Automobilul a ricoșat într-**un camion**, din nefericire. **El** s-a răsturnat.
Automobilul a ricoșat într-**un camion**, din nefericire. **Ø** s-a răsturnat.
‘The car was projected into **a truck**, unfortunately. **PRON** turned over.’
- (92) Strada dădea într-**o piațetă**. **Acesta** era bine luminată.
/ **Asta/Aia/Ea/Aceea/Ø**
‘The street led into **a small square**. **PRON** was well lit.’
- (93) A construit **un bloc** la Mamaia. **Acesta** are o grămadă de apartamente.
/ **Ăsta/El/Ăla/Acela**
‘He built **a block of flats** in Mamaia. **PRON** has a lot of apartments.’

contrast (blue: the elements that enhance a contrastive reading):

- (94) Au pus **un alt indicator** în intersecție. **Ăsta** se vede **mai** bine
/Acesta/Acela/Ăla/EI
'They put **another sign** at the crossroad. **PRON** is more visible.'
- (95) A **mai** construit **un bloc și** la Mamaia. **Acesta** are o grămadă de apartamente
/Ăsta/EI/Ăla/Acela
'He also built **a block of flats** in Mamaia. **PRON** has a lot of apartments.'

Results:

(i) The choice experiment:

	<i>ăsta</i> 'this ^S '	<i>ăla</i> 'that ^S '	<i>acesta</i> 'this ^L '	<i>acela</i> 'that ^L '	<i>el</i>	Ø
+contrast	44.3%	11.75%	76.5%	23.25%	24%	60%
-contrast	22.5%	7.4%	70%	22.3%	45%	52.8%

(ii) The acceptability experiment:

	<i>ăsta</i> 'this ^S '	<i>ăla</i> 'that ^S '	<i>acesta</i> 'this ^L '	<i>acela</i> 'that ^L '	<i>el</i>	Ø
+contrast	3.9	2.41	6.48	4.4	4.35	5.08
-contrast	3.07	2.35	6.52	4.3	5.29	4.57

Note: when it comes to the use of the 3rd person pronoun (*el*) and Ø, other factors are relevant:

(i) Both are less acceptable when there is ambiguity between 2 possible antecedents (because the antecedents have the same gender and number), as in (91) and (92) (Dem disambiguates in favor of the less prominent antecedent, the one required in the examples); we had 3 examples with ambiguity, all in the no-contrast condition – see the results in the choice experiment:

	<i>ăsta</i> 'this ^S '	<i>ăla</i> 'that ^S '	<i>acesta</i> 'this ^L '	<i>acela</i> 'that ^L '	<i>el</i>	Ø
+ambiguity	23.3%	9.3%	81%	30%	21.3%	48%
-ambiguity	32.7%	9%	71%	21.41%	39.7%	57%

(ii) *el* for inanimates is better inside PPs (where there is no competition with a weak form) than in subject position (where there is competition with the weak form Ø: strong forms are biased towards +human)

- *El* in PPs vs. subject position:

	in PPs	subject
the choice experiment	75%	25%
the acceptability experiment	5.9	4.5

Conclusions:

- The short proximal demonstrative (*ăsta*) is more acceptable when there is a contrast between the referent and other referents bearing the NP-property, as predicted by our hypothesis
Why not the distal (*ăla*)? Because of the way the examples were constructed: there was no reason to suppose that the other N-referents with which the referent of the pronoun was contrasted were closer to the speech or topic situation => the referent of the pronoun is treated as proximal because it has just been mentioned
- We see an effect of the normative pressure in the results: short forms are underrated overall, which does not reflect the actual use of the language; this explains why examples rated quite marginal in the acceptability exp. got a lot of choices in the choice exp. (note that the same examples were tested in both experiments; see Appendix):
 - *ăsta* 'this^S' in the inanimate +contrast condition: 3.9 (on a 7-rung scale) but 44.3%
 - *ăsta* 'this^S' in the human +evaluative condition: 3.21 but 34%
 - *ăla* 'that^S' in the human +evaluative condition: 2.49 but 19.3%
 We surmise that these differences do not reflect speaker variation, but variation in the attitude towards the norm or in assessing the register of each example

4.6. Sketching an analysis of the special Dem-Pronouns (\neq Dem + $[_{N\emptyset}]$)

- Demonstratives are *marked* anaphoric elements because they involve *contrast*:

Possible implementations:

- maximality in a salient *sub-situation* of the situation at which the DP is evaluated (Giurgea 2024, Giurgea & Panaitescu this workshop)

- anti-uniqueness (Dayal & Jiang 2021, Nowak 2021, Dayal 2024) (arguably too strong, see Blumberg 2020, Ahn 2022, Giurgea & Panaitescu this workshop)

Without deciding on a formal implementation here, let us call the feature ‘contrast’ and distinguish two situations:

(i) contrast *between the referent of the DP and other entities that have the NP-property*

(ii) contrast *between the referent of the DP and other entities of any sort, salient in the current situation*

The special Romanian and French Dem-Pros that cannot be paraphrased with Dem+overt-NP instantiate the type (ii); the paraphrase with an overt N instantiates type (i):

(96) a. Contabilitatea împrumuturilor și datoriilor asimilate **acestora** se ține pe
bookkeeping-the loans-the.GEN and debts-the.GEN assimilated these^L.DAT REFL keeps on
următoarele categorii (Ro.) (www.contacont.ro)
following-the categories

‘The bookkeeping of loans and of the debts assimilated to **them** is divided into the following categories’

Contrast set for *acestora* : {the loans, the debts, the bookkeeping}

b. Contabilitatea împrumuturilor și datoriilor asimilate **acestor împrumuturi** (...)

‘the bookkeeping of loans and of the debts assimilated to these loans (...)’

Contrast set of *acestor împrumuturi*: {the loans *a*, the loans *b*...}: inappropriate here!

But the special Dem-Pron, when referring to inanimates, should have N-anaphora, because of grammatical gender

=> in the special Dem-Pron, the contrast set is not evaluated wrt. the N-anaphoric component

This component is present because demonstratives have gender and gender is a N-property => a

$[_{N\emptyset}]_{+Gender}$ must be present. If the antecedent is nominal (described by an N(P)-property), this $[_{N\emptyset}]$ must be anaphoric

N.B. For **French**, Zbiri-Hertz (2021) also claims that we should distinguish two pronouns *celui-ci* ‘this’, one of which is an anaphoric (in the *Grande Grammaire du Français*). She claims the anaphoric *celui-ci* is similar to *ce dernier* ‘this last one’ (~ ‘the latter’, ‘the last mentioned’), but, as noticed in Charolles (2021) (the same Grammar), *celui-ci* does not necessarily refer to the last-mentioned entity.

According to Charolles (2021), the distal pronoun *celui-là* can be used anaphorically but requires contrast (“*Celui-là* anaphorique, à la différence de *celui-ci*, demande un référent qui a quelque chose de remarquable, susceptible de l’opposer aux autres”); the contrast may also involve textual distance, in which case it is opposed to *celui-ci* (=> .. X_i ... Y_k ... *celui-ci*_k...*celui-là*_i.. ~ *the former ... the latter*)

=> *celui-là* is not a specialized D_{pron} , but a regular Dem+ $[_{N\emptyset}]$.

Hypothesis: the fact that the Dem-pronoun specialized for non-prominent antecedents is a high register form (*acesta* ‘this^L’) may point to its being a cultural borrowing in Romanian, since the same specialization of a proximal Dem is found in French and German (the languages that were the most influential during the modernization period of Romanian in the 19th century)

Appendix: the design of the experiments

For each of the experiment we had 100 participants (students at the University of Bucharest) divided into 2 groups, who received different test items => each item was tested on 50 informants

(i) The acceptability experiment: 13 sets of sentences per group (=> total: 26 sets):

- inanimate +contrast: 8 items
- inanimate -contrast: 11 items
- human +evaluative: 3 items
- human, less prominent antecedent: 3 items
- ex. (74) (THIS^L for THE+NP): 1 item

(ii) The choice experiment: 15 sets of sentences per group (=> total: 30 sets):

- inanimate +contrast: 8 items (the same as in the other experiment)
- inanimate -contrast: 13 items (those in the other experiment + 2 others)
- human +evaluative: 3 items (the same as in the other experiment)
- human, less prominent antecedent: 3 items (the same as in the other experiment)
- 1 ex. with bound variable pronouns (ex. (81))
- 1 ex. containing definites with overt N with a bound variable interpretation (ex. (81)')
- ex. (74) (THIS^L for THE+NP)

Examples:

- the choice experiment:

Bifați până la cel mult 3 variante posibile de continuare a următoarelor propoziții:

1. Automobilul a ricoșat într-**un camion**, din nefericire.

- a. **Acesta** s-a răsturnat.
- b. **Ăla** s-a răsturnat.
- c. **El** s-a răsturnat.
- d. **Ăsta** s-a răsturnat.
- e. **Acela** s-a răsturnat.
- f. **Ø** s-a răsturnat.

- the acceptability experiment:

Acordați note de la 1 la 7 variantelor de continuare a următoarelor propoziții (1 reprezintă cea mai mică notă, iar 7 reprezintă cea mai mare notă):

1. Automobilul a ricoșat într-**un camion**, din nefericire.

- a. **Acesta** s-a răsturnat. Nota: 1 2 3 4 5 6 7
- b. **Ăla** s-a răsturnat. Nota: 1 2 3 4 5 6 7
- c. **El** s-a răsturnat. Nota: 1 2 3 4 5 6 7
- d. **Ăsta** s-a răsturnat. Nota: 1 2 3 4 5 6 7
- e. **Acela** s-a răsturnat. Nota: 1 2 3 4 5 6 7
- f. **Ø** s-a răsturnat. Nota: 1 2 3 4 5 6 7

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