On the relation between definite pronouns and definite determiners[*]

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1. Setting the stage. Nominal ellipsis in definite DPs

DPs have systematic "noun-less" variants, which often – but not always – rely on the recovery of a NP-property (nominal description) from the context ("N(P)-ellipsis" or "N(ominal)-anaphora"):

(1)   ***Antecedent in cross-sentential linguistic context***
        a. Este nevoie de spitale. S-a decis să se construiască **unul/două/câteva/multe/altele** [$_N$Ø] în anii următori.   (Ro.)[1]
        'Hospitals are needed. A decision was made to build **one/two/some/several/others** [$_N$Ø] in the following years.'
        [$_N$Ø] = *spitale/ hospital(s)*
        a'. Filmul de ieri a fost mai bun decât **acesta** [$_N$Ø][2]
        'Yesterday's film was better than **this one**.'
        [$_N$Ø] / *one* = *film*
        b. Sunt mai multe ipoteze implicate în această afirmaţie. Să le considerăm pe **toate Ø** /S-o luăm pe **fiecare Ø**
        'There are several hypotheses involved in this claim. Let's consider each/every one/all of them'.
        [$_{DP}$ Ø] = *ipotezele/the hypotheses*, or [[$_{Part}$Ø] [$_{DP}$Ø[$_{NP}$Ø]]] = *dintre ipoteze/of the hypotheses*[3]
        b'. Sunt mai multe candidate pentru post. Să le considerăm pe **toate Ø** / **fiecare Ø**
         'There are several candidates for this position. Let's consider each one/all of them'.
        [$_{DP}$ Ø] = *candidatele* 'the candidates' or [[$_{Part}$Ø] [$_{DP}$Ø[$_{NP}$Ø]]]= *dintre candidate* 'of the candidates'

(2)   ***No antecedent in the linguistic context***
        a. Am văzut **doi** [$_N$Ø]   care se   sărutau
          have.1 seen two   which REFL were-kissing
          'I saw two people kissing'
          [$_N$Ø] = *people* (non-anaphoric null N) (+human)
        b. **Fiecare** [$_N$Ø]   vrea   să   fie   iubit.
          Each   wants SBJV be.3 loved
          'Every person/Everybody wants to be loved'
          [$_N$Ø] = *individual/person* (non-anaphoric null N) (+human)
        c. A   intrat   [**una** [[$_N$ Ø]   foarte beată]]
          has entered   one.FSG   very   drunk.FSG
          'A very drunk woman came in.'
          [$_N$Ø] = *female person* (non-anaphoric null N)[4] (+human +female)

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[1] Other than English, our examples will mostly consist of Romanian data. When a language other than English or Romanian is used, we will indicate it in the examples in question (e.g. (Sp.) for Spanish data)..
[2] We may analyze *acesta* as a PF-variant of *acest* before [$_N$Ø] or as reflecting the postnominal Dem – *[filmul] acesta*.
[3] See Giurgea & Nedelcu (2009:§5), Giurgea (2010: §3.1.3) for evidence that distributive universals (e.g. *fiecare*) with an anaphoric interpretation involve ellipsis in a partitive structure.
[4] Some of these forms might be analyzed as complex D+N heads resulting from the incorporation of a grammatical N or n (cf. English *somebody*), but the availability of this interpretation in Romanian is too systematic, extending to whole classes such as quantitatives (cardinals as well as scalar quantitatives such as *mult, mulţi* 'much, many', *destul, destui* 'enough' etc.), rendering an analysis in terms of ambiguity between D and D+N suspicious (see Giurgea 2010, 2013).

d. Mi-a   spus **multe** [$_N$Ø]
   me.DAT-has told many.FPL
   '(S)he told me many things.'
   [$_N$Ø] = *things*   (-animate)

Henceforth, we will use [$_N$Ø]$_{anaph}$ for null nouns which have a linguistic antecedent, like in (1), and [$_N$Ø]$_{non-anaph}$ for null nouns which do not have a linguistic antecedent in the context, like those in (2).

Some languages use a 'pro-N' element in some of the structures with N-anaphora: Engl. *One* (*the one that you mentioned, a big one* etc.), Fr. Clitic *en*, It. Clitic *ne*, Dutch clitic *er* etc.

→ We expect that definite Ds, in particular the definite article and the demonstrative, should occur in such "noun-less" DPs, particularly with an N-ellipsis interpretation.

Demonstratives do have pronominal uses (see (1)a´), but for the definite article (THE), we find a difference between *partial NP-emptiness* and *total NP-emptiness*.
With respect to partial-NP emptiness, THE behaves by and large like other 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 [$_N$Ø] (see Giurgea 2010). One such case is that of the use of Romanian *cea* instead of -*a* in (3); *cel* is also used in certain DPs with overt N (e.g. *cei doi oameni* 'the two persons')

(3)   a. Maşin**a** verde e mai frumoasă decât [**cea** [[$_N$Ø]$_{anaph}$ roşie]
       The green car is nicer than **the** red **one**.
       El coche verde es más bonito que [**el** [[$_N$Ø]$_{anaph}$ rojo]   (Sp.)
     b. [context: no animate noun serving as a potential antecedent]
       Nu este indicat pentru [**cei** [[$_N$Ø]$_{non-anaph}$ cu   frică de înălţime] (Ro.)
       not is   suitable for   the.MPL   with fear of height
       'It is not suitable for those/the people who are afraid of heights'

With respect to total-NP emptiness, many languages show different (spell-out) forms. The closest counterparts seem to be 3rd person personal pronouns (henceforth PRON):

(4)   a. A venit cu o maşină nouă. Mi-a   spus că   a cumpărat**{-o /*cea}**   în iunie.
       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 [$_N$Ø]]** (Postal (1969), Panagiotidis (2002), Elbourne (2001, 2005, 2013), Sauerland (2007), Patel-Grosz & Grosz (2017), a.o.)

2. Evidence for N-anaphora/ellipsis in personal pronouns

2.1 *Neontological pronouns* (Elbourne's 2005 term; or '(purely) descriptive pronouns', 'pronouns of laziness', 'paycheck pronouns'): 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 connection between the pronoun and its antecedent is nominal anaphora (identity-of-sense anaphora), i.e. the nominal, descriptive part of a DP.

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

(5)   The man who gave **his paycheque** to his wife was wiser than the man who gave **it** to his mistress
                                               (Karttunen 1969)
     John gave **his paycheck** to his mistress. Everybody else put **it** in the bank.
                                           (Elbourne 2005 < Cooper 1979)

it = his paycheck = THE [paycheck of him], where *his/him* has a different reference than in the antecedent

(5)´   Omul care i-a lăsat cardul / şi-a lăsat cardul soţiei a fost mai deştept decât cel care i **l**-a lăsat/şi **l**-a lăsat amantei.

Note that the possessor that triggers disjoint reference may be implicit:

(6)   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)

(7)   This year **the president** is a Republican. Next year **he** will be a Democrat
(Elbourne 2005 < Cooper 1979)
he = ιx.presidentUSA(*x*)(*s*),   where time(*s*) ⊆ next year
(7)´   Anul acesta preşedintele e un republican. La anul, **pro** va fi un democrat.

(8)   **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:

(9)   Pierre a pris **la mouche**. Il **la** prend souvent pour un rien.   (Corblin 2006 :8)
lit. 'Peter took the fly. He often takes it for nothing'
Lui Petru i-a sărit **ţandăra**. Îi sare **pro** adesea pentru un fleac.
lit. 'Peter's splinter jumped off. It often does for a trifle.'
~ Petru's **heart** skipped a bit. **It** often does so. – in English, arguably there is a referent; but see:
(9)´   Peter had his **guard** up. He'd often keep **it** up in situations like these.

- pronouns receiving a **generic** interpretation despite having a non-generic antecedent (be it in the discourse, as in (10)a,c, or in the extralinguistic context, as in (10)b):

(10)   a. A. Am cules o ciupercă. B : Vezi că (**pro**) nu sunt întotdeauna comestibile (roum.)
    I picked a **mushroom**.   Be careful, **they're** not always eadible.
    [_NØ] = *ciuperci*; *pro* = *ciupercile* 'mushrooms-the', *they* = *mushrooms* (with a generic D)
    b. [context: night, stray dogs are approaching] Fii atent, adesea (**pro**) sunt periculoşi noaptea !
     'Be careful, **they** may be dangerous at night.'
    [_NØ] = *câini/dogs*; *pro* = *câinii* 'dogs-the', *they* = *dogs* (with a generic D)
    c. A: How's baby? B: Oh, she's crying now. A: Yes, **they** do tend to cry.
(Huddleston & Pullum 2002: 17.2.3.[25])

Takeaway: These pronouns do not express bound variable relationships with an antecedent and do not refer to a previously introduced entity in the discourse. Instead, these pronouns have a similar syntactic-semantic structure as their antecedents, but with different variables and hence different reference.

2.2 Possible evidence of internal structure in the N-anaphoric component ('surface anaphora' in Hankamer & Sag's 1976 terms):

In Romanian, clitic pronouns can be associated to external possessors – dative clitics (see also the version with *şi* in (5)´):

(11) a. – Casa   arată parcă   altfel.   I-ai   vopsit uşa ?
        house-the looks seemingly differently 3S.DAT-have.2SG painted door-the
        – Da, **i**-am   vopsit-**o**
          yes 3S.DAT-have.1 painted it(F)
        'The house has a different look, it seems. Did you paint its door? Yes, I did.'
    b. Ion a venit cu maşina.   Ceilalţi **şi**-au   lăsat-**o**   acasă.
       Ion has come with car(F)-the   the-others 3REFL.DAT-have left-3FS.ACC home
       'Ion came by car. The others left it at home.'
    c. Fiecare a venit cu   prietenii săi.   Numai Ion nu **şi**   **i**-a   adus.
       every has come with friends-the 3S.POSS only Ion not 3REFL.DAT 3MP.ACC-has brought
       'Everyone came with their friends. Only Ion did not bring them'

Takeaway: If we assume that the possessive relation must be syntactically represented via binding a null pronoun inside the possessee (e.g. *maşina*), or maybe via movement, we must conclude that the pronouns in (11) and (5)′ involve a complex structure (including a variable to express the possession relation).

(12)   Cl-Dat$_{i \ldots}$ [D$_{def}$ [Ø$_i$ [$_N$Ø]$_{anaph}$]]

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

When it comes to grammatical gender, like for the items in (13), gender is a purely formal property of nouns; it does not encode an interpretable property assigned to the referents of the nouns and pronouns.

(13)   a. Am pus **paltonul**$_i$ pe scaun.   Peste **el**$_i$ am pus umbrela.
            'I put the coat(NEUT:SG>M) on the chair. I put the umbrella over **it**(M)'
        b. Am pus **cămaşa**$_i$ pe scaun.   Peste **ea**$_i$ am pus umbrela.
            'I put the shirt(F) on the chair. I put the umbrella over **it**(F)'

The gender feature on the pronoun cannot be the result of agreement because the pronoun may occur in a different utterance (see (13)), or there may be no linguistic antecedent at all (see (14)). In the exophoric use, where pronouns refer to entities salient in the context, the gender reflects the nominal concept that characterizes the referent:

(14)   [Context: a bill is at the hearer's feet]
        a. Ia-**o**, ce mai aştepţi   (*hârtie* or *bancnotă* 'banknote, bill' are feminine nouns)
            'Take it(F), what are you waiting for ?'
        b. Prends-**le**, tu hésites encore ?   (French; *billet* 'banknote, bill' is masculine)
            'Take it(M), what are you waiting for ?'

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

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

Takeaway: Pronouns in (13-15) must have some mechanism of replicating the grammatical gender of their antecedents/referents without using Agree and without letting this gender feature be interpreted.

3. Potential issues for equating PRON with THE+[$_{NP}$Ø]

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.

(16)   a. The woman met a friend of { hers /*the woman's}.
        b. The woman met a man who can't stand {her/??the woman}.

c. Every woman met a man who can't stand {her/the woman} but likes her friend.

Principle C has been reasonably argued to follow from a principle *Minimize Restrictors!* (Schlenker, 2005), even if under a grammaticalized, specialized version (Johnson, 2013; Bruening, 2014). These accounts assume a competition of alternative DPs and stipulate that DPs with less restrictors are preferred. But a pronoun of the type THE+[$_{NP}$Ø] does not have less restrictors than THE+[overt-NP]. Even if we analyze (16) with [$_N$Ø]$_{non-anaph}$, this remains a restrictor of THE, and a principle like *Minimize Restrictors!* would not distinguish between *her* and *the woman*.

The easiest solution to this problem is to say that bound variable pronouns, at least in environments that exclude full DPs, lack an N-component (this is the traditional view, endorsed by Schlenker 2005, Johnson 2013 etc.). In §4.3 we'll see how the D+N-analysis of pronouns can respond to this issue.

3.2 Morphology: many languages use different forms for PRON and THE.
cf. Engl. *it* vs. *the*, Ancient Greek *autós* vs. *ho*, Swedish *han* vs. *-en/den*, German *er* vs. *der* etc.[5]
Even when they have a common source, as in Romance (in most Romance languages both series come from Lat. *ille*), the forms may become divergent:

(17)   Romanian: THE: PRON:
           MSG.NOM   *-u(l), -le* after *-e*; *cel*   (weak) *Ø/* (strong) *el*
           MSG.ACC   *-u(l), -le* after *-e*; *cel*   (weak) *l/* (strong) *el*
           FSG.NOM   *-a; cea*   (weak) *Ø/*(strong) *ea*
           MSG.ACC   *-a; cea*   (weak) *o/* (strong) *ea*

        French: MSG.NOM   *le*   (weak) *il/* (strong) *lui*
                FSG.NOM   *la*   *elle*
                MPL.NOM   *les*   (weak) *ils /* (strong) *eux*
                FPL.NOM   *les*   *elles*

One potential issue could be that there is no 1-to-1 correspondence between morphological forms for THE and morphological forms for PRON.

3.3 Features: personal pronouns may be richer in morphologically expressed features than THE:

(18)   Engl.: no marked gender on THE; 3 marked genders on PRONsg: he, she, it
       Swedish: two genders on THE (common/neuter)
           4 gender forms of PRON$_{sg}$: *han* MASC, *hon* FEM.SG, *den* INAN.COMM, *det* INAN.NEUT

Note that this potential discrepancy is an issue only if one assumes that the [$_N$Ø] assumed for pronouns does not contribute at all to the features encoded in the pronominal form. But the additional gender features may be reasonably considered to originate on the [$_N$Ø]-component.

3.4 The weak/strong contrast: pronouns may show several series of forms, whose distribution is not always controlled by purely formal factors:

- Formal constraints: strong forms necessary to provide support for prosodic features that mark IS-features (focus, contrastive topic) and the only ones available in certain environments: PPs, coordination, modification by focal particles ('only', 'even', 'also' etc.)
- Use of strong forms beyond these formal constraints:

(19)   Vom   discuta acum categoriile   lui Kant$_i$. {**El$_i$** / **?*pro*$_{it}$**} le   obține pornind
       will.1PL discuss now categories-the GEN Kant   he   them.F.ACC obtains starting

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[5] German also has pronominal *der*, but this is rather a demonstrative, see Patel-Grosz & Grosz (2017).

de la tipurile   de judecăţi.
from types-the of propositions
'We will now discuss Kant's categories. He obtains them based on types of propositions.'

→ *pro* might require that its antecedent be in a syntactically prominent position (if it is first-mention)

≠ the use of weak pronouns in French: in this context, the strong *lui* is not necessary, since it would add an additional contrast

(19)´   On discutera maintenant les catégories de Kant. **(#Lui,) il**ᵢ les obtient en partant des types de jugements

The use of clitics (weak forms of direct and dative objects) in Ro. seems to be less restricted than the use of *pro*. Thus, in a context such as (19), the clitic alone may be used (although a strong form is allowed):

(20)   Vom   discuta acum categoriile   lui Kantᵢ. Vom afla cum **iᵢ-a**   venit
        will.1PL discuss now categories-the GEN Kant   will.1PL learn how 3SG.DAT-has come
        (luiᵢ)   ideea   lor.
        3SG.STRONG.DAT ideea-the their
        'We will now discuss Kant's categories. We will learn how their idea occurred to him.'

- Special semantic restrictions on strong forms: for some languages, a restriction to animates has been noticed (see Cardinaletti & Starke 1999, who wrongly claim that this restriction is universal):

(21)   a. ?? Non ho   comprato la machinaᵢ perchè non mi   è piaciuta/sono piaciuti né   **leiᵢ**
           not have.1 bough t the car   because not me.DAT is pleased/are pleased neither 3FSG.STRONG
        né il   suo proprietario.   (It., Cardinaletti & Starke 1999)
        nor the its owner
        b. a. Jag köpte inte bilenᵢ, för jag gillade varken **den**ᵢ eller des ägare   (Swedish, Holmberg 1999)
        c. N-am cumpărat maşina fiindcă nu mi-a plăcut nici **%ea**, nici proprietarul ei. (Ro.)
        d. Şi cu [cărţile lui Tudor]ᵢ ce-ai fãcut? **Le**-am pierdut şi **pe ele**ᵢ.
           'And what did you do with Tudor's books? I lost them too.'

In Romanian, there is an animacy restriction, but it is strict only on a subset of strong forms: those that have a deictic use, asssociated to stress, must be animate; the same restrictions has been noticed for English (see Wolter 2006):

(22)   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'

In other contexts, there is a preference for animate interpretations, but it is not mandatory. Note that this preference may also subject to inter-speaker variation (see (21)c).
Like for 3.3 above, this does not rule out the analysis THE+[ₙØ], but indicates that it needs additional ingredients in order to cover the variety of forms and interpretations.

3.5 A gap in the possible THE+[ₙØ] combinations

A widespread assumption is that the anaphoric use of pronouns and DPs in general (including the bound variable use) is marked by an index related somehow to D (be it on D itself, or in SpecDP, or in a projection above or below D; see Elbourne, 2005; Schwarz, 2009; Hanink, 2017, 2021; Jenks 2018; Ahn

2019, 2020; Jenks & Konate 2022). We will indicate this anaphoric use via the notational shortcut THE$_{+anaph}$.

Given the data discussed above, we assume that both N and D may be either anaphoric or not (where [$_N\emptyset$]$_{anaph}$ marks the existence of a linguistic antecedent, and THE$_{+anaph}$ coreference with a referent in the discourse). Thus, we predict 4 possible combinations for *total emptiness* cases:

(23)   a. [THE$_{+anaph}$ [$_N\emptyset$]$_{anaph}$]   : anaphoric pronouns with an N-antecedent
            (e.g. Aceasta e [maşina mea]$_i$ pro$_i$ E nouă) (FEM: gram. gender)

        b. [THE$_{+anaph}$ [$_N\emptyset$]$_{non-anaph}$] : anaphoric pronouns with no N-antecedent
            (for inanimates, this is the only possibility if there is no N-antecedent, see pronouns that refer back to events or propositions realized as CPs or vPs)
            (e.g. Crede [că vom câştiga]$_i$. pro$_i$ Este imposibil)

        c. [THE [$_N\emptyset$]$_{anaph}$]   : neontological pronouns
            (e.g. *Am cules o ciupercă. Vezi că (pro) nu sunt întotdeauna comestible).*

        d. [THE [$_N\emptyset$]$_{non-anaph}$]   : ??

The combination in (23)d seems to be missing.

With respect to inanimate [$_N\emptyset$]$_{non-anaph}$, the typological gap might be also explained by resorting to conceptual reasoning. If privative features are assumed, the inanimate [$_N\emptyset$]$_{non-anaph}$ would lack any descriptive feature and its combination with a non-anaphoric definite determiner might be ruled out for conceptual reasons, because of the impossibility to define a maximal sum of uncategorized entities in a situation.

However, [$_N\emptyset$]$_{non-anaph}$ can also be interpreted as +person (+/-female). Should (23)d exist, a reasonable interpretation we might expect for plural *pro* would be something along the lines of 'maximal sum of humans', in the world (> generic use) or in a restricted situation. This prediction is not borne out.

(24)   a. Acum vorbim despre **ei**.
            Now we're talking about **them**.
            Impossible interpretation: 'we're talking about humans in general'
        b. *pro* sunt fiinţe sfâşiate de contradicţii.
                are beings torn   by contradictions
            They are beings torn apart by contradictions.
            Impossible interpretation: 'humans in general are beings torn apart by contradictions.'

When it comes to restricted situations, there is an impersonal use of the third plural that corresponds at first glance to the combination in (23)d:

(25)   [context: no antecedent for *pro/they*]
        Aici/În oraşul ăsta, *pro* nu-şi   lasă   maşinile 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.'
        Possible analysis: *pro* = [the maximal sum of people in situation s] ?

However, this differs from a run-of-the-mill definite DP in having restricted anaphoric antecedent potential for subsequent pronouns:

(26)   [context: no antecedent for *pro/they*]
         Aici, **pro**$_i$ fac curăţenie duminica. ?? Admir comportarea **lor**$_i$ / ??Un oraş ca al **lor**$_i$
         ar trebui să fie ţinta noastră   .
         Here, they$_i$ clean on Sundays. ??I admire their$_i$ behavior / ??A city like theirs$_i$ should be our goal.

As definite DPs have non-restricted anaphoric potential, it is unlikely that the impersonal *pro*$_{pl}$ or *they*
corresponds to the combination [THE [$_N$Ø]$_{non-anaph}$]. It might differ from it in lacking a referential index
(the feature responsible for assigning a discourse referent to the DP and thereby allowing it to function as
an antecedent for referential/indexical anaphora).

N.B. Overt pronouns in Ro. completely lack this use:
(27)   [context: no antecedent for *pro/they*]
         # Aici/Încity oraşul   ăsta,   **ei**   nu-şi   lasă   maşinile în stradă
           here in city-the this they not-3REFL.DAT leave.3PL cars-the   in street

Intermin conclusion: There are potential issues for a simplified THE+NP analysis of both pronouns and
non-pronominal DPs, in particular, 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.
The question remains, however: why is THE ruled out with *total emptiness*? That is, why does the spell-
out of THE require the existence of an overt complement?

4. Towards an account
4.1 Features for emptiness

The expectation that a plain THE should occur in the contexts in (23) is justified only if we consider that
[$_N$Ø]$_{anaph}$ and [$_N$Ø]$_{non-anaph}$ are ordinary Ns. But there are already a number of restrictions in their
distribution across languages that indicate that this assumption is unwarranted.

[$_N$Ø]$_{anaph}$ 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. Following Merchant (2001)'s assumptions for ellipsis in general and Giurgea (2010),
Saab (2019) for nominal ellipsis, let us assume that the heads F that introduce [$_N$Ø]$_{anaph}$ carry a [E] feature
– which comes with the interpretative requirement of an antecedent for the complement of F. This
assumption is formalized in (28) :

(28)   When combining with [$_N$Ø]$_{anaph}$ ((23)a,c), D$_{pron}$ differs from THE by bearing [E].

Why is the form different from that used with partial ellipsis (and partial emptiness, more generally)?
As pointed out by Saab (2019), [E] can occur in different positions inside the DP.

(29)   Partial ellipsis in definites involves [E] on Num or n (or another lower head)

Under the assumption that the *entire* complement of F$_{[E]}$ must have an anaphoric antecedent and that
traces are copies, a very low position for [E] must be assumed for cases with a complement remnant:

(30)   Examinarea ipotezelor a fost mai rapidă decât [cea **[[$_N$Ø]$_{anaph}$ a surselor]**].
         The examination of the hypotheses was faster than [that **[[$_N$Ø]$_{anaph}$ of the sources]**].

[E] can sit here on n if we assume that complements can attach higher than n. If n however is a
nominalizer attaching higher than complements in complex event nominals (see Borer 1993, Alexiadou
2001, a.o.), we should assume that the genitive object in (30) does not reconstruct, presumably because
this is an instance of A-movement. But ellipsis is also allowed with subcategorized PP complements,
which do not need any A-movement (cf. Giurgea 2010):

(31) E importantă referirea   constantă la comentatori   consacraţi, dar şi [cea [[$_N$Ø]$_{anaph}$ la surse]].
       is important   reference-the constant to commentators established but also the   to sources
       'It is important to constantly refer to established commentators, but also to sources'

N.B. Engl. *one* is ruled out with complements, but Engl. can use Ø + a strong form of THE (namely *that*), see (30).

For [$_N$Ø]$_{non-anaph}$, constraints in distribution are also noticeable across languages (see Engl. vs. Ro. in (2)) and also within one language – even in Ro. there are some gaps in its distribution:

(32) a. Ştie   mult/multe [$_N$Ø]$_{non-anaph}$.   [$_N$Ø] = THING(S)
         knows much.MSG/many.FPL
         '(S)he knows a lot/many things.'
      b. * Ştie   nişte [$_N$Ø]$_{non-anaph}$.
           knows some

➔ Let us assume that [$_N$Ø]$_{non-anaph}$ must be selected by nominal functional items. We can implement this assumption by postulating a selectional feature, [+Ø], for a grammatical n with no phonological realization
➔ like for [$_N$Ø]$_{anaph}$, we may conclude that D$_{pron}$ ≠ THE insofar as it has an additional feature: [+Ø]

Here is how these assumptions can be formalized:

(33) [$_N$Ø]$_{non-anaph}$ with partial emptiness involves [+Ø] on Num
(34) D$_{pron}$ differs from THE in that it can bear [+Ø] (when combining with [$_N$Ø]$_{non-anaph}$, see (23)b),

➔ Given the above, the gap in (23)d reflects the non-existence of a certain featural make-up of D$_{pron}$:
(35) There is no D$_{pron}$ bearing [+Ø] and lacking [anaph]
       = Any D$_{pron}$ with [+Ø] also bears [anaph]

This formalizes the intuition that pronouns must involve an anaphoric link, which may be indexical, descriptive (nominal-anaphora) or both. That is, it is not possible for a D$_{pron}$ to be both non-anaphoric and to require a non-anaphoric NP.

If the [E] feature is on D for N-anaphoric pronouns, then the entire complement of D must have an (indentical) antecedent. This also means that Num should be identical between the antecedent and the pronoun. This prediction appears to be borne out – sloppy readings (of the paycheck-type) require the same number feature in the antecedent and the pronoun:

(36) Mary forgot [the **book** she had to translate]. I also forgot **it**.
       Maria a uitat [cartea pe care trebuia s-o traducă]. Şi eu am uitat-**o**.
           - the most obvious interpretation is 'sloppy': *it = the book I had to translate.*
           it = THE [*book x had to translate*], where *x* is bound by the subject in both sentences
(37) a. Mary forgot [the **book** she had to translate]. **??** I also forgot **them**.
         Maria a uitat [cartea pe care trebuia s-o traducă]. ?? Şi eu le-am uitat.
      b. Mary forgot [the **books** she had to translate]. **??** I also forgot **it**.
         Maria a uitat [cărţile pe care trebuia să le traducă]. ?? Şi eu am uitat-o.

However, the forms specific for THE in partial emptiness (Ro. *cel*, Engl. *the one*) cannot be used here:

(38) a. Mary forgot [the book she had to translate]. * I also forgot the ones/??those.
         Maria a uitat [cartea pe care trebuia s-o traducă]. * Şi eu le-am uitat pe cele/??acelea.
      b. Mary forgot [the books she had to translate]. * I also forgot the one/??that.

Maria a uitat [cărţile pe care trebuia să le traducă]. * Şi eu am uitat-o pe cea/??aceea.

→ partial ellipsis in definites might involve an additional constraint, requiring the presence of a *substantive remnant*
- 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 e.g. (39) for indefinites, 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 [$_N$Ø]] / *one* (the intonation confirms this, the entire DP being destressed):

(39)   A: Are o maşină   de tăiat   iarba.   B: Şi   eu am   [una [$_N$Ø]]
          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.'

→ the requirement may be at PF: THE is a weak form, Num is null → an overt XP must be present in DP as a phonological support.

One wrinkle for this analysis has to do with demonstratives like those in (38), which are known to sometimes occur in THE+[$_N$Ø]$_{anaph}$ contexts in Romanian, and a similar case is that of Engl. *the one*. Note that it is not the case that *the one* is always blocked. It is acceptable however in identificational copular constructions (Schütze 2001):

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

We leave this problem for further research.

4.2 Morphological underspecification

The conclusion is inescapable that certain forms realize the three configurations in (23)a-c. That is, D$_{pron}$ can be [+anaph] and [E]/[+O], or it can lack [anaph] but have [E].
Jenks & Konate (2022) reached the same conclusion – they use an [idx] feature for both indexical and descriptive (nominal) anaphora and propose that [idx] may be either on D or on N.
Is this a drawback? Not necessarily, because there is independent evidence that pronouns may spell-out different underlying structures.

➢   Neontological uses of personal pronouns are usually restricted to weak/null forms (as noticed by Giurgea 2010 for Romanian; Jenks & Konate 2022 provide references from various other languages: Kurafuji 1998; 1999; Oku 1998; Saito et al. 2008; Runic 2014; Sakamoto 2017; Patel-Grosz & Grosz 2017; Bošković 2018; Barbosa 2019; Bi & Jenks 2019)

(41)   a. Anul acesta preşedintele e un republican. La anul, {*pro/??el}* va fi un democrat
          'This year the president is a Republican. Next year he will be a Democrat
        b. Doctorul i-a interzis Mariei să fumeze. Mie, {*pro/??el}* nu mi-a spus nimic.
          'The doctor forbade Mary to smoke. To me, he didn't say anything'
        c. [context: night, stray dogs are approaching] Fii atent, adesea (*pro/??ei*) sunt periculoşi noaptea !
          'Be careful, they may be dangerous at night.'
        d. Ioana l-a făcut pe fiul ei muzician. Dana **l**-a făcut (***pe el**) doctor
          'Ioana made her son a musician. Dana made him (= her own son) a doctor.'
(6)′   Cele mai multe cărţi au un sumar. În unele, {Ø/??**el**} e la sfârşit.
        Most books contain **a table of contents**. In some, **it** is at the end. (Heim 1990: 39)

In PPs, where weak forms are unavailable, strong forms are acceptable:

(42)   a. Maria vorbeşte frecvent cu doctorul. Eu n-am mai vorbit de mult **cu el**.
        'Maria often speaks with her doctor. I haven't talked to him in a while.'
    b. Cei care şi-au împodobit uşa cu ghirlande au fost mai inspiraţi decât cei care au pus **pe ea** afişe.
        'Those who decorated their front-door with flowers were more inspired than those who put
        posters on it'

➢   For other determiners found in NPs without an overt N, there are sometimes contrasts that point out
    that [NØ]anaph and [NØ]non-anaph involve different features at the D- or DP-level:
    with *unul* 'one', DOM is obligatory for a +human [NØ]non-anaph, irrespective of specificity, and
    optional (sensitive to specificity) for a +human [NØ]anaph:

(43)   a. [context: no previous mention of a N]
        (L-)am   văzut **pe unul**   în curte / # Am   văzut **unul**   în curte.
        3MSG.CL.ACC-have.1 seen DOM one.MSG in yard   have.1 seen one.MSG in yard
        'I saw somebody in the yard.'
    b. Nu sunt destui semanticieni pe listă. Mai   trebuie   să   aducem **unul**.
        not are enough semanticists   on list   more need.1PL SUBJ bring.1PL one.MSG
        'There are not enough semanticists on the list. We have to bring one more.'

Evidence pronouns can spell-out elided generalized quantifiers

Further evidence that pronouns can be structurally ambiguous comes from Elbourne (2021), who shows
that the English anaphoric *it* may spell-out different things. In subject position + VP-ellipsis contexts, *it*
can stand for a quantificational DP, with various Ds (not definite):

(44)   a. SP: Every towel has a purpose.
        PE: No, **it** doesn't!   = NOT (**every towel** (has a purpose))
    b. Oh well, they'll be here soon and something's sure to happen. **It** always does.
        = always (**something** happens)

        - only allowed with ellipsis after Aux:
(45)   Every towel has a purpose. * No, it doesn't have a purpose!

        - impossible with animates and degraded with plurals:
(46)   A: Every boy is happy.
        B: *No, he isn't!
(47)   Some exciting things will happen this summer. %They always do.

Elbourne assumes a +P (pronominal) feature on the QP, requiring a contextual antecedent as well as
occurrence in an anaphoric sentence (a monoclausal sentence in which the subject is an anaphoric
pronoun and the VP has to be elided), and triggering reduced spell-out as *it*.

In Romanian, a null subject language, these examples are all possible provided that the subject is null.
There is no restriction to inanimates or singulars:

(46)´   A: Fiecare băiat e fericit. B: Nu, nu e!
(47)´   O să se întâmple nişte chestii tari vara asta. Întotdeauna se întâmplă.

It is not necessary to assume a special structure underlying *pro*: since SpecTP does not need to be overtly
filled with a subject in Romanian and V always raises to the inflectional domain (see Dobrovie-Sorin
1994, Cornilescu 1997, a.o.), we may assume that the entire vP is elided.
In English this is not an option because of the EPP-requirement

→ *it* is used as a last resort, presumably spelling-out a KP with an elided DP. (For the idea that pronouns spell-out KPs in Indo-European languages, see Neeleman & Szendrői 2007). But *it* preserves its [-animate +sg] features, hence the restrictions.

4.3 Principle C

Principle C is usually explained as a special instance of a more general principle Minimize Structure!. Under an analysis of anaphoric DPs using indices (on D or on a dedicated slot in the D-domain), this principle has been formulated as disallowing a restriction of THE (tantamount to a NP complement of D_{pron}) when the antecedent is too local (is an 'active' discourse referent, in the dynamic processing of the sentence), see Schlenker 2005's Minimize Restrictors! (see also Bruening 2014).

But pronouns in principle C environments still have grammatical (non-semantic) gender, which was considered indicative of $[_N\emptyset]_{anaph}$:

(48)　　a. [Această propoziţie]ᵢ cuprinde propria　[**ei**]ᵢ　　　negaţie.
　　　　　 this　　sentence(F) includes own-the 3FSG.GEN negation
　　　　　'This sentence includes its own negation'
　　　　b. Stiva　　　　s-a　　　prăbuşit　fără s-**o**　　　　　　fi　atins　　cineva.
　　　　　 stack(F)-the REFL-has collapsed　without SUBJ-3FSG.ACC PRF touched somebody
　　　　　'The stack collapsed without anyone touching it'

Short definite descriptions, i.e. *the man*, and personal pronouns, i.e. *him*, are assumed to be equivalent in size in theories which adopt the view that pronouns are definite descriptions (Elbourne, 2005; Johnson 2013, a.m.o). If pronouns are more or less the same syntactic size as DET+NP, then constraints like *Minimize Restrictors*! would not differentiate between the two.

Here are two possible solutions:

(i) There is no N-component, gender and number are generated on D (or Num) and gender is checked via agreement with the binder or via a rule requiring matching between the bindee and the binder.

φ-feature matching for bound variable readings is known for the so-called 'fake indexicals' (Kratzer 2009), which sometimes show evidence that intermediate agreement relations are necessary:

(49)　　a. **Eu** sunt singura　　care **mă** îndoi**esc**　de　copilul **meu**.
　　　　　 I　am　only(F)-the that　REFL doubt.**1SG** about child-the my
　　　　　'I am the only one who has doubts about **her/my** child.'
　　　　　Possible sloppy reading: the others do not doubt about **their** children
　　　　b. **Eu** sunt singura　　care **se** îndoie**şte**　　de　copilul **meu**.
　　　　　 I　am　only-the that　REFL doubt.**3SG** about child-the my
　　　　　only 'I am the only one who has doubts about **my** child.'　　　(* sloppy reading)

There are also examples where it is not clear how a syntactic agreement mechanism could work – see (50), where the relativized element is not predicated of the controller (like in (49)):

(50)　　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 othersᵢ 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)

→ an additional mechanism of matching features might be needed:

(51)   An anaphoric index *i* on D_i can be equated with the index *j* of D_j iff the φ-features of D_i and D_j match

(ii) $[_N Ø]_{anaph}$, at least in theses cases, should not be considered a phrase deleted at PF. It may be a *deep anaphor*, which requires a salient nominal antecedent just as the anaphoric index requires a salient indexical antecedent. We may assume that the context of utterance provides a list of activated concepts just as it provides a list of active discourse referents. These concepts should be registered with their corresponding linguistic expression, which provides the grammatical gender. This feature is checked at LF, where $[_N Ø]_{anaph}$ is replaced by the concept in question.

Schlenker (2005) argues that the anaphoric index (called by him 'negative index') does not count for the Minimize Restrictors! principle. If binder indices are not considered additional restrictions in these cases, the anaphoric feature of $[_N Ø]_{anaph}$, which serves as notational shortcut for the existence of an anaphoric index, should also be exempted from the principle.

In the same vein, Jenks & Konate (2022) claim that index features, which they label [idx], are not restricted to D and e-type expressions, but they use them for all sorts of pro-forms:

(52)   [idx,D] = *this*, *that*, other pronouns   (Jenks & Konate 2022: 8)
         [idx,N] = *one*
         [idx,V] = *so*, *that* (as in *do so* or *do that*)
         [idx,P] = *here*, *there*
         [idx,Deg] = *so*, *that* (as in *so tall* or *that tall*)
         [idx,Adv] = *so*, *thus*
         [idx,C] = *so*, *that* (as in *say so* or *say that*)

But gender in principle C environments can also be interpretable (semantic, or 'natural' gender) – see English *he, she, it*, or Ro. cases of conflict between natural and grammatical gender – *călăuză* 'guide', always feminine, may be used to refer to a male:

(53)   [Călăuza   noastră]$_i$ ne   tot   vorbea   despre părinţii   ei$_i$/**lui**$_i$.
          guide(**F**)-the our.FSG us.DAT over-and-over was-talking about   parents-the 3FSG.GEN/3**M**SG.GEN
          'Our guide kept talking to us about his parents.'

If N (or n) is always projected to host gender in 3rd person pronouns, we can only conclude that *null Ns are not taken into account by Minimize Restrictors!*

To avoid the representation of the contribution of natural gender in (53) as a restriction, we could also analyze this gender as a *gender feature on an intransitive (N-less) D*, interpreted as a *partial identity function* of type <e,e>, which adds a presuppositions (as proposed for φ-features of pronouns in general by Cooper (1979), Heim & Kratzer (1998), Sauerland (2009), Jenks & Konate (2022)).

(54)   ⟦MASC⟧ = λx: x is a male. x (else undefined)

This approach would fit with hypothesis (i), Once the system allows for D with no N-component, this could be extended to grammatical gender. Note however that there is a significant difference: under hypothesis (i), φ-features of bound pronouns are not interpreted, see Kratzer (2009)'s account of fake indexicals. If partial identity functions were used for bound pronouns, a fake indexical interpretation could never arise for (49), as the variable would be restricted to always refer to the speaker, as opposed to receiving an interpretation where the referents vary with the alternative entities in the context set.

→ Under an intransitive D approach, we should allow φ-features to sometimes be interpretable and sometimes a mere by-product of binding-agreement (be they valued by agree or erased by LF-matching)

The view that variable binding is contingent on agreement also in the case of gender is supported by a generalization that holds in Greek and German according to Spathas (2007) and Sauerland (2008): in cases of conflicts between grammatical and natural gender, the use of natural gender disallows sloppy readings (which implies that the pronoun is not a bound variable):

(55)   a. To   koritsi   pije   sto   jrafio **tu**   ke   to Janis episis   (Gr., Sauerland 2008:(35)-(36))
            the.NEUT girl(NEUT) went to-the office its and the Janis too
            'The girl went to her office and John too'   (strict/sloppy)
         b. To   koritsi   pije   sto   jrafio **tis** ke   to Janis episis
            the.NEUT girl(NEUT) went to-the office her and the Janis too
            'The girl went to her office and John too'   (strict/*sloppy)

(56)   a. Das Mädchen   soll   **seine** Zähne putzen und der Junge auch (German, Sauerland 2008:(39))
            the girl(NEUT) should its   teeth clean and the boy   too
            'The girl should brush her teeth and the boy too' (✓sloppy)
         b. # Das Mädchen   soll   **ihre** Zähne putzen und der Junge auch   (only strict → unnatural
             the girl(NEUT) should her   teeth clean and the boy   too   reading)
            'The girl should brush her teeth and the boy should brush her/*his teeth, too'

→ At least for these languages, hypothesis (i) (intransitive Ds + φ-agreement or matching with the antecedent) is not sufficient, it may hold for variable binding but not for all pronouns in principle C environments.

In Ro., we do not feel this contrast:

(57)   Doar persoan**a**   asta   tot   vorbea   despre copiii   **lui**.
         only person(**F**)-the.**FSG** this.FSG over-and-over was-talking about   children-the his(**MSG**.GEN)
         'Only this person kept talking about his children.'
         OK sloppy: the others did not talk about **their** children

To account for cases like (57), there is also the possibility of using 2 types of gender features on each DP, see Wechsler & Zlatić's (2000) CONCORD GENDER VS. INDEX GENDER, or Smith (2015) who distinguishes between agreement with uninterpretable and interpretable features on the same DP.

On the other hand, hypothesis (ii) (N-ellipsis) is supported even for the bound variable use based on an argument from Sauerland (2000): the possibility of using focal stress on the pronoun in cases such as (58).

(58)   On Monday, every boy called his mother.   (Sauerland 2000: 1)
         On TUESday, every TEAcher called his/**HIS** mother.

The focus stress on *his* requires that *called his mother* in the second sentence differs from *called his mother* in the first one by the interpretation of *his*. If *his* is only a bound variable, the predicates in the two clauses are the same – λx. x called x's mother => deaccentuation should be compulsory
The only way of achieving a different content for the second *his* is to use N-anaphora:

(59)   [every teacher] λx. [x called ιy.mother(**ιz.(teacher(z)∧z=x)**(y))]

But note that *his* in (58) can also remain deaccented => for that case, a non-anaphoric [$_N$Ø] +male might be assumed (cf. *on TUESday, every GIRL called HER/#her mother*)

We leave a decision between the hypotheses (i) and (ii) for future research.

4.4 Weak vs. strong and degrees of accessibility

When their use is not forced by the structure (coordination, focus stress, PPs etc.), strong forms often differ from weak ones in being used for less prominent (less accessible) antecedents – see (19), resumed below, for *pro* vs. overt subject:

(60) Vom   discuta acum categoriile   lui Kant_i. {**El_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.
      from types-the of propositions
      'We will now discuss Kant's categories. He obtains them based on types of propositions.'

4.4.1 Clitics vs. strong objects

For **clitics vs. strong objects**, the conditions are different. In a context such as (60), the newly introduced referent is normally resumed by the clitic, the strong form being used to mark contrast (or when forced by coordination or focal particles):

(61) Vom   discuta acum categoriile   lui Kant_i. Problema   lor   **l**-a   preocupat
      will.1PL discuss now categories-the GEN Kant   problem-the their 3MS.ACC-has preoccupied
      (?pe el)   mult timp.
       DOM him much time
       'We will now discuss Kant's categories. Their problem preoccupied him for a long time.'
      : the use of *pe el* here seems to involve a contrast between Kant and others

A strong form is necessary in the deictic uses, associated with stress. But note that in this case, as we have seen in (22) resumed below, there is an additional restriction to animates:

(62) 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'

Note now that not all exophoric uses require this structure. In (62) reference involves *deixis*, an attention-driving mechanism (usually accompanied by pointing). Due to this mechanism, (62) is acceptable even if the immediate speech situation contains more than one female referent (pointing isolates one of these referents, uniqueness can be considered to be relativized to a sub-situation made salient via pointing, see Wolter 2006). The exophoric use acceptable with weak forms, as in (14), resumed under (63) below, which is open to inanimates, is not of this type: the referent must be salient enough to be identified without deixis (thus, (63) is acceptable if the addressee is supposed to have already seen the bill; moreover, if several bills are visible, (63) can only refer to the bill closest or most accessible to the addressee, it cannot be used with a gesture to point to a more remote bill or to one that the addressee might not have been aware of):

(63) [Context: a banknote is at the hearer's feet]
      a. Ia-**o**, ce mai aștepți   (*hârtie* or *bancnotă* 'bank-note' are feminine nouns)
        'Take it(F), what are you waiting for ?'
      b. Prends-**le**, tu hésites encore ?   (French; *billet* 'bank-note' is masculine)
        'Take it(M), what are you waiting for ?'

→ 2 analyses underlying strong object forms:

15

(i) Forced environments, including contrast (analyzable as a feature that requires a PF-realization): the pronominal DP has the same underlying structure as in the weak use, but must be overtly realized for PF reasons.

The precise analysis depends on the analysis of clitics. Under a movement analysis of clitics, we may analyze such strong forms as spell-out of lower copies. This is a welcome result, as the forms are the same as those used when there is no clitic doubling (e.g. with PPs or dative complements of adjectives):

(64)   [context: about a backpack – *rucsac* 'NEUT', i.e. SG>MASC]
        a. Aşa **îl**   cari   doar pe **el**.
           so   3MS.CL.ACC carry.2SG   only DOM 3MS.STRONG.ACC
           'This way you'll be only carrying it.'
        b. Am   venit cu **el**   în spate.
           have.1 come with 3MS.STRONG.ACC in back
           'I came with it on my back.'
        c. **I**-am   pus şi **lui**   fermoar nou.
           3S.CL.DAT-have.1 put also 3MS.STRONG.DAT zipper   new
           'I also put a new zipper on it.'
        d. Magazinul vindea   la reduceri acest rucsac   şi   altele asemănătoare **lui**.
           store-the was-selling at discounts this   backpack and others similar   3MS.STRONG.DAT
           'The store was selling this backpack and others like it at a discount.'

(ii) Deictic environments: the structure is different: we have an animate $[_N\emptyset]_{non\text{-}anaph}$ + *whatever feature or structure is responsible for the lower degree of accessibility of (deictic) demonstratives*

A grammatical gender interpretation is indeed excluded in this case – e.g. one cannot use the feminine to refer to a male guide (based on the feminine gender of *călăuză* 'guide'):

(65)   [context: pointing to a male guide – *călăuză* 'FEM']
        Întrebă-l   pe el! / # Întreab-o   pe ea!
        ask.IMPV.2SG-3MS.CL.ACC DOM him   ask.IMPV.2SG-3FS.CL.ACC DOM her

Note that if object clitics are analyzed without clitic movement, as agreement markers or dedicated heads (see Sportiche's 1999 Cl heads) licensing null objects, we would expect objects to be *pro* and to show the same pragmatic requirements as (subject) *pro*.
        The fact that the accessibility requirements for object clitics and for *pro* differ gives us a reason to prefer the movement analysis of object clitics.
        However, this does not mean that clitic doubling of other DPs should involve movement – the same spell-out may reflect two underlying structures, one with movement and one with agreement (or Cl heads).

→ The clitic doubling of the deictic pronouns of type (ii) (ex. (65)) is like the clitic doubling of other DPs and does not represent the spell-out of a lower copy

4.4.2 *Pro* vs. overt subjects: forced cases

Turning to **pro vs. overt subjects**, we should first note that there are forced cases here too.
As shown by Giurgea (2010), $[_N\emptyset]_{non\text{-}anaph}$ overt subjects are restricted to animates.

→ For salient referents that do not fall under a nominal concept, *pro* is the only choice
The only possible overt pronoun alternative consists of the 'neuter' demonstrative *asta* – which has a feminine morphological form but no actual feminine feature, as shown by its failure to trigger feminine aegreement in (66) below.

(66) A Cred   că [va   câştiga un partid nou]$_i$.
         believe.1SG that will.3SG win   a party   new
         'I think that a new party will win.'
       B {*pro*$_i$/Asta$_i$ / *El$_i$ /*Ea$_i$ } e imposibil(*ă).
            this.FSG 3MSG.NOM 3FSG.NOM   is impossible(FSG)
         'That's impossible'

→ personal pronouns only have animate [$_N$Ø]$_{non\text{-}anaph}$
This includes entities accessible via perception but not yet categorized, even if the context implies that
they are animate:

(67) Cine bate   la uşă ? (*pro/*El   /*Ea)   e poştaşul.
         who knocks at door   3MSG.NOM 3FSG.NOM   is postman-the
         'Who's knocking at the door? It's the postman.'

→ non-categorized entities accessible via perception (e.g. in the local context) necessarily lack
descriptive content. If [$_N$Ø]$_{non\text{-}anaph}$ is present here, it will have to be totally underspecified (a concept that
applies to the whole domain): ENTITY/THING
Cf. also inanimate pronouns, which allow uses where they cover all entities, including animates:

(68) Nimic nu se naşte din nimic.
         'Nothing is born from nothing.'

Exceptionally, we may find the FSG clitic *o* for non-nominal antecedents (events, propositions), but this
use bears some restrictions which would require a dedicated in-depth study:

(69) A: [Ar trebui să fie mai îngăduitor]$_i$ B: I-am   zis-**o**$_i$ de   mult.
          'He should be more lenient'   3S.CL.DAT-have.1 told-3FS.ACC since long
                                                'I told (it to) him (so) long ago.'

4.4.3 *Pro* vs. overt subjects: true optionality cases

Beyond the situations discussed in §4.4.2, the choice between *pro* and overt subjects is open to
pragmatics and can be argued to depend on the accessibility/salience of the referent (see Ariel 1990,
2001). Do we need features signaling accessibility on D$_{pron}$, as suggested by Giurgea (2010)?

As a preview of future work, we intend to develop a different solution, following the insights in Wolter
(2006) and Patel-Grosz & Grosz (2017):

(70) a. Pronominal forms used for less accessible antecedents have more complex structure
       b. Simpler forms are used whenever possible because of a Minimize-Structure! principle or of a
       markedness-based reasoning

For *pro*, the neontological uses do not allow us to assume that no [$_N$Ø] is projected. However, the features
of *pro* may be assumed to be poorer because they are invisible and are made visible only via agreement.

- Number and person are in most cases recovered via agreement with T, but there are nominative
  environments where no agreement is visible and yet the subject can be null and take the reference
  from the discourse context (≠ PRO):

(71) Înainte de a merge acolo, s-a   întâmplat o nenorocire
       before of to go   there REFL-has happened a misfortune
       'Before going there, a misfortune happened.'
       : this is a nominative environment, cf. *Înainte de a merge **eu** acolo*

(72)   Să   fi   fost acolo!
       SUBJ PRF been there
       'If only **I/you/(s)he/it/we/they** were there!'
       (also a nominative environment: *să fi fost **eu** acolo!*)

       → the null S seems to be *pro*, but its features cannot be identified

- Gender can only be recovered if the sentence contains predicative adjectives; thus, *pro* will be inferred as masculine in (73)a, in agreement with the gender of the antecedent, but no gender can be inferred from the sentence for (73)b (either the tap (masc.) or the water (fem.) can be running):

(73)   [about a tap – *robinet* 'NEUT', i.e. SG>MASC]
       a. E închis.
          is closed.MSG
          'It's closed'
       b. Curge.
          runs
          'It's running.'

→ maybe *pro* involves [$_N$Ø] and Num without φ-features.

Under a view of Agreement which involves feature matching rather than valuation (with the relevant distinction being *u*F-*i*F 'uninterpretable/interpretable'), the situation in (73)a can be analyzed as an instance of 'reverse valuation': the missing features are assigned by the target to the controller under agreement. Such a mechanism was proposed by Wechsler (2004, 2011):

(74)   *Agreement Marking Principle*   (Wechsler 2011:1009, (17))
       (i) (informal statement) Agreement is driven by a syntactic feature of the controller, if the controller has such a feature. If the controller lacks such a feature, then the target agreement inflection is semantically interpreted as characterizing the controller denotation.
       (ii) Suppose an agreement target is marked for a syntactic phi feature $\langle F_{att}, F_{val} \rangle$ with semantic content Σ. Then:
       a. If $\langle F_{att}, F_{val} \rangle$ appears on the controller, then it is accepted. (*syntactic agreement*)
       b. If $\langle F_{att}, F_{val} \rangle$ appears on the controller, $G_{val} \neq F_{val}$, then it is rejected. (*violation of syntactic agreement*)
       c. If the controller lacks F_{att} altogether, then assign Σ to the controller denotation. (*semantic agreement*)

In this formulation, given that gender is not necessarily semantic, we will replace c with the following:
       c′. If the controller lacks F_{att} altogether, then assign $\langle F_{att}, F_{val} \rangle$ to the controller

If lacking features is sufficient for making a DP structurally poorer, then we may treat the choice of *pro* over overt subjects for highly accesible antecedents as an instance of Minimize-Structure!, following the solution proposed by Patel-Grosz & Grosz's (2017) for the choice between *er* and *der* in German.

4.4.4 Extending the weak/strong competition to demonstratives: Demonstrative pronouns as plain definites

The proximal demonstrative pronoun (i.e., in cases of total emptiness) sometimes appears for THE+[$_N$Ø], without being paraphrasable by DEM+an overt N. This can be seen for some neontological uses:

(6)″   Cele mai multe cărţi au un sumar. În unele, {Ø/**acesta**/?acest sumar} e la sfârşit.
       Most books contain **a table of contents**. In some, {**it**/?this table of contents} is at the end.

(75) 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, in Giurgea 2010)
'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.'

The use of *ces provinces(-ci)* 'these provinces' would imply an additional contrast between these and other provinces; a natural paraphrase with an overt N would use THE+N, not DEM+N:

= … ou à l'intérieur **des provinces**, …

≠ … ou à l'intérieur de **ces provinces(-ci)**, …

(76) (…) les dernières pensées du mourant au moment de la mort déterminent son statut après **celle-ci** (…) (Fr. Arnaud Desjardins, *Pour une mort sans peur*, p. 97, in Giurgea 2010)

= … après **la mort**

≠ … après **cette mort(-ci)**

(77) Contabilitatea **împrumuturilor** şi datoriilor asimilate **acestora** se ţine pe
evidence-the loans-the.GEN and debts-the.GEN assimilated these.DAT REFL keeps on
următoarele categorii (Ro.) (www.contacont.ro, in Giurgea 2010)
following-the categories
'The accounting of loans and debts assimilated to them is kept under the following categories'
=a. Contabilitatea împrumuturilor şi datoriilor asimilate **împrumuturilor**
evidence-the loans-the.GEN and debts-the.GEN assimilated loans-the.DAT
≠ b. Contabilitatea împrumuturilor şi datoriilor asimilate **acestor împrumuturi**
evidence-the loans-the.GEN and debts-the.GEN assimilated these.DAT loans
(the DP *împrumuturilor/acestora* is generic => a demonstrative D is ruled out (there is no sub-kind reading in this ex.))

The fact that this demonstrative truly involves a different structure is supported by a formal contrast found in Romanian: in this language, in the colloquial register the demonstratives *acesta, acela* are normally replaced by the short variants *ăsta, ăla*. However, this replacement is ruled out in these cases; note also that Engl. cannot realize the D as Dem followed by the pro-N *one* here:

(77)′ * Contabilitatea împrumuturilor şi datoriilor asimilate **ăstora** ....
contabilité-la emprunts-les.GEN et dettes-les.GEN assimilées ceux-ci.DAT
(6)′′′ Cele mai multe cărţi au un sumar. În unele, {Ø/**acesta**/*ăsta} e la sfârşit.
Most books contain **a table of contents**. In some, {**it**/??this table of contents} is at the end.
Most books contain **a table of contents**. * In some, **this one** is at the end

Following our line of reasoning, the D$_{pron}$ realized as a proximal demonstrative here should have additional features or structure compared to the D$_{pron}$ used for *pro*.

Since we have examples of neontological uses, this feature may be a [discourse-proximal] feature associated to the [anaph] feature of [$_N$Ø], specifying the antecedent of [$_N$Ø] as having been mentioned recently.

Demonstratives are also known to be used for less prominent antecedents in case more than one antecedent is available; strong pronouns (where unforced) lie somewhere in between:

(78) a. Bătrâna$_i$ şi-a chemat servitoarea$_i$. *pro*$_{i/*j}$/**Ea**$_{i/j}$/**Aceasta**$_{*i/j}$ nu se simţea bine.
old-woman 3REFL-DAT-has called maiden-the she not REFL felt.IMPF well
b. La vieille dame$_i$ appela sa servante$_j$. **Elle**$_i$/**Celle-ci**$_j$ ne se portait pas bien. (Fr.)
'The old woman called her maiden. She was not feeling good.'

However, here the demonstrative can be replaced by DEM+overt N; moreover, with animates, [ₙØ] can be considered non-anaphoric, so even if there is a unique maiden in the situation, the use of DEM can be based on a concept 'female' which is not uniquely satisfied in the situation:

(78)′   Această persoană/femeie/servitoare nu se   simţea bine.
        this   person   woman maiden   not REFL felt.IMPF well

As for English, *this* is not used because it is restricted to inanimates (see Wolter 2006). *This one* is possible but clearly requires contrast with other maidens:

(78)″   The old woman called her maiden. This one was not feeling good.

The distinction between THE and DEM (as determiners) will be left for another occasion.

5. Remarks on indices

- Many analyses of pronouns and anaphoric DPs in general use numerical indices in the structure, including them in narrow syntax, from the very beginning of the syntactic derivation, in order to obey Chomksy's Inclusiveness Condition (see Jenks & Konate 2022 and references therein; Elbourne 2005, Schwarz 2009, Ahn 2019)
- But all that linguistic forms can mark are conditions on index assignment and not indices per se
- The place where indices are relevant is LF
→ We may equally conceive indices as an *enrichment* of LF
- This is impossible in Chomsky's framework because LF is considered to be the *result* of the syntactic derivation
- But LF is by definition the representation that interacts with the conceptual-intentional system
→ we may assume a *matching* relation between a *syntactic* LF, the final result of the derivation, and a *logical* LF, which is the analysis of a thought/the content of a message
- Numerical indices could be part of the logical LF (interpreted via assignment functions)
- The syntactic LF has at most placeholders for indices (variables) on which constraints can be formulated. Or it can have only *features* (those that get spelled-out) that constrain the choice of indices
Cf. Merchant's E-feature for syntactic ellipsis (which includes N-anaphora)

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