Inflected prepositions or indefinite determiners

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1   Data and issues

Traditional grammars and descriptive work analyse Italian *dei* as the union of the preposition *di* and the definite article *i*, but also view *dei* as a plural indefinite article, (Korzen, 1996). Formal analyses have mostly taken these two views as distinct alternatives. We aim at an analysis that can reconcile these two observations.

Basics   Some examples of *dei* combined with count nouns and mass nouns in subject position and in object position are provided in (1)–from (Chierchia, 1998)– and (2) respectively.[1]

(1)   a.   Delle bottiglie sono rotte   (plural count)
             DEI bottles are broken

       b.   Del vino si è rovesciato   (mass)
             DEI wine got spilled

       c.   * Del paese è a favore   (singular count)
             DEI country is in favour

(2)   a.   Ho visto delle bottiglie
             I saw DEI bottles

       b.   Ha rovesciato del vino
             S/he spelt DEI wine

       c.   * Ha percorso del paese
             S/e covered DEI country

• *dei* does not have pronominal uses (3b) but this is also the case of other quantifiers (3c)

(3)   a.   Alcuni/molti/tutti/questi sono venuti
             some/many/all/these came

       b.   *Dei/quei sono venuti
             DEI/those came

       c.   *Ogni/qualche è venuto
             every/some came

• *dei* nominals can have a de re-like reading (4), referential specific reading (5) and non-referential reading (6).

(4)   a.   Dei ragazzi giocano in giardino. Nessuno li conosce.
             DEI boys are playing in the garden. Nobody knows them

       b.   Ieri mi hanno consegnato tre casse di vino e delle bottiglie erano rotte.
             yesterday, they delivered three boxes of wine and DEI bottles were broken

(5)   a.   Dei ragazzi mi hanno chiamato su skype, li conosci anche tu
             DEI boys called me on skype, you know them too

       b.   Dei ragazzi non sono venuti, ma mi avevano avvisato
             DEI boys did not come, but they had told me in advance

(6)   a.   Non ci sono dei difetti nel generatore, o almeno non mi pare
             there aren't DEI flaws in the generator or at least I do not know

       b.   Sto cercando dei regali per mio figlio più piccolo
             I am looking for DEI presents for my youngest son

Partitives   Partitives headed by an indefinite determiner are necessarily interpreted as presuppositional.

(7)   a.   Alcune delle ragazze sono contente
             some of the girls are satisfied

       b.   Molta dell'acqua è tracimata
             a lot of the water overflowed

       c.   La maggior parte del parlamento è a favore
             most of the parliament is in favour

Literature   There have been two major lines of analysis for Italian *dei* in the recent literature: – one deriving the bare partitive from the full partitive forms, as claimed by Chierchia (1998) and Zamparelli (2008). They call *dei* nominals BARE PARTITIVES. This terminological choice underscores an assumed similarity with FULL PARTITIVES in (7).

(8)   [alcuni [*e* [di [i [ragazzi]]]]]

– the other assuming that *dei* nominals have the same structure of weak indefinites with a determiner that has certain particular semantic properties, as claimed by Storto (2003) and Le Bruyn (2007).

(9)   [alcuni [ragazzi]]

These two lines take *dei* nominals as crucially different from bare nominals in Italian. This makes Italian very different from *des* nominals in French, cf. (Roy, 2001)[2].

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[1]We use 'DEI' in the text and in the glosses as a cover term for the forms realising all gender and number combinations, i.e. *del, dello, della, dei, degli, delle.*

[2]We cannot do justice to the rich production on French *du/de la/des*.

Goals of the talk   In this paper, we explore the hypothesis that there are four types of nominal expressions, of increasing syntactic complexity: bare nouns (DPs with a null determiner or bare NPs) (10a), DPs (10b), QPs without partitives (10c), QPs with partitive PPs (10d).

(10)   a. $[_{DP}\emptyset\,[_{NP}\,\text{N}]]$ bare nouns
        b. $[_{DP}\,\text{D}\,[_{NP}\,\text{N}]]$ DPs with an overt determiner
        c. $[_{QP}\,\text{Q}\,[_{DP}\emptyset\,[_{NP}\,\text{N}]]]$ QPs without partitives
        d. $[_{QP}\,[_{Q'}\,\text{Q}\,[_{DP}\emptyset\,[_{NP}\,\text{N}]]]\,\text{PP}]$ QPs with partitive PPs

• Our working hypothesis is that Italian *dei* nominals have the structure given in (10b).
• The semantic correlate of this hypothesis is that the presence of a quantifier in a nominal warrants the possibility of performing all standard operations on the domain of denotation of such a nominal. Its absence in *dei* nominals means that some operations cannot be performed in their domain.
• This hypothesis attributes to *dei* nominals the same structure as referential expressions, anaphoric expressions, deictics. The differences among them must therefore be reduced to the different semantics of the determiners.
– We observe that *dei* nominals cannot be D-linked, and this crucially differenciates them from partitives.
– We observe that *dei* nominals can take wide scope and introduce a discourse referent, and this crucially differenciates them from bare nouns and weak-only determiners.

Outline:
§2: A comparative view of Italian indefinite expressions
§3: Some proposals in the literature
§4: Semantic considerations
§5: Syntactic considerations

2   A comparative overview of Italian indefinites

2.1   Italian Bare nouns

1. Bare nouns are only indefinites in Italian. They cannot refer to kinds (Longobardi, 1994). The nominals in (11) have only existential readings. Generics require an overt determiner (12).

    (11)   a.   Sono arrivate ragazze
                 Girls arrived
            b.   Maria alleva conigli
                 Maria breeds rabbits

    (12)   a.   I conigli si allevano facilmente
                 rabbits breed easily
            b.   Maria alleva i conigli
                 M. breeds rabbits

2. Bare nouns are limited to lexically governed positions (direct object position or object of a preposition), see the contrast between (11) and (13), and the lack of contrast between (1) and (2). Subject of unaccusative verbs are fine in postverbal position (11), but are out in preverbal position (13).

    (13)   a.   *Ragazze sono arrivate
                 girls arrived
            b.   *Dinosauri sono estinti
                 dinosaurs are extinct

Known rescuing strategies are clause initial focus/topic position and heaviness/modification.[3] Examples (14a,b) are from (Chierchia, 1998).

    (14)   a.   RAGAZZE sono arrivate, non ragazzi
                 GIRLS arrived, not boys
            b.   ragazze in minigonna sono arrivate
                 girls in miniskirt arrived
            c.   *DINOSAURI sono estinti
            d.   *Dinosauri con le ali si sono estinti prima di tutto

2.2   Comparing *dei* nominals with the other types of indefinites

(Referential non-specific) de re-like reading of nominals in preverbal subject position.

    (15)   a.   *Ragazzi giocano in giardino.   (10a)
                 boys are playing in the garden
            b.   Dei ragazzi giocano in giardino. Si tratta di Marco e Luisa.   (10b)
                 DEI boys are playing in the garden. They are M. and L.
            c.   Alcuni ragazzi giocano in giardino. Si tratta di Marco e Luisa.   (10c)
                 some boys are playing in the garden. They are M. and L.
            d.   Alcuni dei ragazzi giocano in giardino. Si tratta di Marco e Luisa.   (10d)
                 some of the boys are playing in the garden. They are M. and L.

(Referential non-specific) de re-like reading of nominals in postverbal subject position of existential sentences.

    (16)   a.   Ci sono ragazzi che giocano in giardino. * Si tratta di Marco e Luisa.
                 boys are playing in the garden. They are M. and L.
            b.   Ci sono dei ragazzi che giocano in giardino. Si tratta di Marco e Luisa.
                 DEI boys are playing in the garden. They are M. and L.
            c.   Ci sono alcuni ragazzi che giocano in giardino. Si tratta di Marco e Luisa.
                 some boys are playing in the garden. They are M. and L.
            d.   #Ci sono alcuni dei ragazzi che giocano in giardino. Si tratta di Marco e Luisa.
                 some of the boys are playing in the garden. They are M. and L.

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[3]These rescuing strategies do not rescue bare nouns as subjects of species predicates, pace (Chierchia, 1998) who gives examples (i) and (ii), which we find ungrammatical.
(i) RAGAZZE sono rare, non ragazzi
(ii) ragazze in minigonna sono rare

Nominals in postverbal subject position of existential sentences in a context that is incompatible with the assumption of an empty domain.

(17) a. #Ieri mi hanno consegnato tre casse di vino e c'erano bottiglie rotte.
    yesterday, they delivered three boxes of wine and there were broken bottles

b. Ieri mi hanno consegnato tre casse di vino e c'erano delle bottiglie rotte.
    yesterday, they delivered three boxes of wine and there were DEI broken bottles

c. Ieri mi hanno consegnato tre casse di vino e c'erano alcune bottiglie rotte.
    yesterday, they delivered three boxes of wine and there were some broken bottles

d. *Ieri mi hanno consegnato tre casse di vino e c'erano alcune delle bottiglie rotte.
    yesterday, they delivered three boxes of wine and there were some of the broken bottles/ some of the bottles were broken

Nominals in preverbal subject position in a context that is incompatible with the assumption of an empty domain.

(18) a. *Ieri mi hanno consegnato tre casse di vino e bottiglie erano rotte.
    yesterday, they delivered three boxes of wine and bottles were broken

b. Ieri mi hanno consegnato tre casse di vino e delle bottiglie erano rotte.
    yesterday, they delivered three boxes of wine and DEI bottles were broken

c. Ieri mi hanno consegnato tre casse di vino e alcune bottiglie erano rotte.
    yesterday, they delivered three boxes of wine and some bottles were broken

d. Ieri mi hanno consegnato tre casse di vino e alcune delle bottiglie erano rotte.
    yesterday, they delivered three boxes of wine and some bottles were broken

De re-like reading of nominals in object position containing a relational noun with a (non)-overt possessive.

(19) a. Ho chiamato amici (miei) su skype. * Li conosci anche tu
    I called friends [of mine] on skype. You know them too

b. Ho chiamato degli amici (miei) su skype. Li conosci anche tu
    I called DEI friends [of mine] on skype. You know them too

c. Ho chiamato alcuni amici (miei) su skype. Li conosci anche tu
    I called some friends [of mine] on skype. You know them too

d. Ho chiamato alcuni degli amici *(miei) su skype. Li conosci anche tu
    I called some of the friends of mine on skype. You know them too

(sub-)kind interpretation of subjects of generic sentences.

(20) a. *Italiani (veri) mangiano la pasta
    (real) Italians eat pasta

b. Degli italiani #(veri) mangiano la pasta
    DEI (real) Italians eat pasta

c. #Alcuni italiani (veri) mangiano la pasta
    Some (real) Italians eat pasta

d. #Alcuni degli italiani (veri) mangiano la pasta
    Some of the (real) Italians eat pasta

e. Gli italiani (veri) mangiano la pasta
    (real) Italians eat pasta

The quantifier with the partitive in (21a) triggers a presupposition of a specific domain. The quantifier in (21b) does not triggers this 'strong' presupposition, but does trigger a 'weaker' form of it that is the presupposition of non-empty domain. The *dei* nominal in (21c) do not tolerate a presupposed domain, hence one cannot compute the referent of *gli altri*.

(21) a. Alcuni dei ragazzi sono venuti, (gli) altri no
    some of the boys came, (the) others didn't

b. Alcuni ragazzi sono venuti, (?gli) altri no
    some boys came, (the) others didn't

c. Dei ragazzi sono venuti, (*gli) altri no
    DEI boys came, (the) others didn't

Bare nouns take only narrow scope over negation, *dei* nominals can take either scope, and quantified nominals take wide scope. Italian, being a negative concord language, marks narrow scope with an N-word as a preference.

(22) a. Non ho visto ragazzi $*\exists\neg; \neg\exists$
    I did not see boys

b. Non ho visto dei ragazzi $\exists\neg; \%\neg\exists$
    I did not see DEI boys

c. Non ho visto alcuni ragazzi $\exists\neg; *\neg\exists$
    I did not see some boys

d. Non ho visto alcuni dei ragazzi $\exists\neg; *\neg\exists$
    I did not see some of the boys

e. Non ho visto nessun ragazzo $*\exists\neg; \neg\exists$
    I did not see any boys

dei nominals pair with indefinites and partitives insofar as they preserve the telicity of verbal predicates. Bare nominals induce atelic cumulative readings.

(23)   a.   Maria ha mangiato dei panini in tre minuti/*per tre minuti
              M. ate DEI sandwiches in three minutes/for three minutes

        b.   Maria ha mangiato alcuni panini in tre minuti/*per tre minuti
              M. ate some sandwiches in three minutes/for three minutes

        c.   Maria ha mangiato alcuni dei panini in tre minuti/*per tre minuti
              M. ate some of the sandwiches in three minutes/for three minutes

        d.   Maria ha mangiato panini *in tre minuti/per tre minuti
   M. ate sandwiches in three minutes/for three minutes

Opaque contexts

(24)   a.   Sto cercando errori nel file   de dicto/*de re
              I am looking for errors in the file

        b.   Sto cercando degli errori nel file   de dicto/de re
              I am looking for DEI errors in the file

        c.   Sto cercando alcuni errori nel file   *de dicto/de re
              I am looking for some errors in the file

        d.   Sto cercando alcuni degli errori nel file   *de dicto/de re
              I am looking for some of the errors in the file

2.3   *Ad interim* assessment

i. Differently from bare nouns, *dei* nominals can have a de re reading, are compatible with a context that rules out the possibility of an empty domain, and preserve the telicity of telic predicates. But, like bare nouns, they can be under the scope of negation and have a de dicto reading.

ii. Parallel to quantifiers, *dei* nominals have a de re reading, are compatible with a context that rules out the possibility of an empty domain, and they preserve the telicity of telic predicates. But, unlike quantifiers, they trigger a subkind interpretation in subject position of generic sentences, are incompatible with a presupposed domain and allow narrow scope.

iii. Finally, *dei* nominals are crucially different from full partitives in that they can occur in postverbal subject position of existential sentences and allow the interpretation of a null possessive in relational nouns. In short, *dei* nominals have in common with partitives only what they both share with quantificational phrases.

3   Some proposals in the literature

Chierchia (1998)   The partitive construction in (7) and the *dei* nominals construction in (1) are claimed to be structurally identical. The only difference is that (1) lacks an overt numeral in the higher D position. This position is licensed by raising the complex formed by preposition+definite article.

(25)
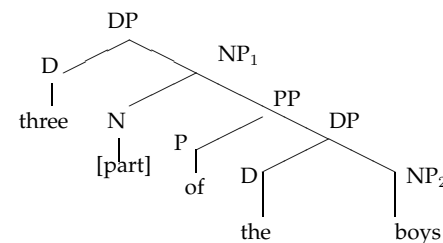
(26)   a.   the boys ⇒ ιboys

        b.   part of the boys ⇒ part(ιboys) = λx[part(x,boys)]

        c.   three of the boys ⇒ three(part(ιboys))

- The preposition *di* (of) is said to have no meaning
- *i* cliticises to *di*, supposedly a purely phonetic process
- the operator part-of '$\leq$ that relates the whole to the parts and characterises the interpretation of partitives, is provided by an empty element heading the NP$_1$ projection
- the maximalisation operator iota 'ι', contributed by the definite article, takes a property (set of individuals) contributed by the head of NP$_2$ and returns the complex maximal individual in it
- The combination of functions '$\leq \circ \iota$' gives λPλx[x$\leq \iota$P] for the complex N-P-D.
- This complex moves into the higher D and must shift in doing so. Since there is no natural kind correlate, $\exists$ is the only option. As a result, *delle bottiglie* in (2a) is analysed as the generalised quantifier λQ$\exists$x[bottle(x)$\wedge$Q(x)].

Putative advantages of Chierchia's analysis:
i) it distinguishes *dei* nominals from bare nominals in that *dei* nominals can have scope over negation, while bare nominals cannot.
ii) it distinguishes *dei* nominals from non-partitive indefinites, because they cannot coordinate with other determiners (27), however, this does not extend to other determiners, e.g. (28)

(27)   a.   *uno o degli amici

        b.   *alcuni o degli amici

        c.   molti o pochi documenti

        d.   uno o due documenti

(28)   a.   *uno o alcuni amici

        b.   *molti o alcuni amici

Storto (2003)   Chierchia's proposal predicts that *dei* nominals have the semantics of partitives, namely
– *dei* nominals presuppose a non-empty domain and
– *dei* nominals impose a proper part relation on it.

Storto notes that both predictions are not born out. The latter is disprouved by data such as sentence (29), which can be used without ascribing contradictory beliefs to the relevant group of Martians.

(29)   Dei marziani che sono atterrati nel mio giardino mi hanno detto che loro sono gli
       ultimi rappresentanti della loro specie
       DEI martians who landed in my backyard told me that they are the last represen-
       tatives of their species

The former is disprouved by data such as (30), which shows that the existence presupposition that characterises partitives is not comparable to the presupposition of *dei* nominals, if any.

(30)   a.   # Mi piacerebbe trovare alcuni dei dodo, ma so che oramai sono estinti

       b.   Mi piacerebbe trovare dei dodo, ma so che oramai sono estinti
            I would like to find some dodos, but I know that they are extinct nowadays

Storto also notes that the FREE INTERPRETATION of possessive NPs correlates with the presence of the definite article, and it is available with full partitives, but it is neither available with indefinite nominals nor with *dei* nominals. However, if *dei* nominals contained a definite, they should license free interpretations.

(31)   Ieri Gianni e Paolo sono stati attaccati da gruppi di cani;
       yesterday G. and P. were attacked by groups of dogs

       a.   sfortunatamente i cani di Gianni non sono stati catturati.
            unfortunately, the dogs of G. have not been captured

       b.   sfortunatamente ognuno/uno/alcuni/molti/due dei cani di Gianni non è/sono
            stato/i catturato/i.

       c.   # sfortunatamente ...alcuni/molti/due cani di Gianni non sono stati catturati.

       d.   # sfortunatamente dei cani di Gianni non sono stati catturati.

Storto concludes that *dei* is a lexical indefinite determiner, but does not talk about the differences with other indefinites.

Zamparelli (2008)   Zamparelli defends Chierchia's claim that
– the Italian plural indefinite article *dei* is a partitive structure without an overt numeral
and responds to Storto's criticism by claiming that
– the definite DP embedded in these constructions is a kind-denoting DP.

• Zamparelli identifies three shortcomings in Storto's analysis, not found in an analysis that derives *dei* nominals from partitives:
i) predicate position: Zamparelli (2008) notices the contrast between (32a,b), but he does not talk about the lack of contrast between (32b) and (32c,d).

(32)   a.   *Quei venti uomini sono alcune brave persone
            those 20 men are some good people

       b.   Quei venti uomini sono delle brave persone
            those 20 men are DEI good people

       c.   Quei venti uomini sono brave persone
            those 20 men are good people

       d.   Gianni e Maria sono due brave persone
            G. and M. are good people

ii) scope of genericity (Zamparelli, 2008)

(33)   Adolescents / an adolescent /* some adolescent(s) is/are generally/often tall.

iii) float (Zamparelli, 2008)

(34)   a.   Di studenti ne conosco alcuni
            of students I know some

       b.   *Di studenti ne conosco dei

• Zamparelli identifies two problems with the referential interpretation of the definite article in *dei*:

(35)   a.   *(Alcuni) dei dieci ragazzi
            some of the ten boys

       b.   *(Tre) dei miei valgono *(sei) dei loro
            three of mine are worth six of theirs

• However, one could save Storto's hypothesis comparing (35a) with (36a) and (35b) with (36b).

(36)   a.   *Alcuni dieci ragazzi

       b.   *Alcuni miei valgono alcuni loro

- The definite article combines with the noun to yield a kind

- The kind combines with the binary 'residue operator' R, expressed by the preposition *di*, and this is the step where the partitive meaning gets constructed. R is in the head of its own projection. It takes two arguments, subtracts the denotation of the second from the denotation of the first, and returns the result of the difference. The first argument is the denotation of a copy of the noun taken as a property, i.e. the join semilattice (atoms and sums) The second argument is the denotation of the definite nominal and is taken as a kind, i.e. the maximal sum.

- The RP syntactically replaces the PP in Chierchia (1998) and semantically has a similar effect as $[_N \ 0_{[+part]}]$.[4]

- After subtraction, the singletons also disappear from the denotation of the constituent, thanks to a filtering operation performed by Num, where the RP costituent has raised. Num is said to host a cardinal.
  The resulting denotation is a set of pluralities.

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[4]It is to be seen whether Zamparelli's proposal for plural count *dei* portable into the mass domain. Recall that with mass we have a singular *del*, but we must stop the possibility of having singular count, cf (1b) vs. (1c).

(37) a. $[_{RP} [_{NP}$ boys $]_i [_{R'}$ of $[_{DP}$ the $[_{NP}$ boys $]_i$]]]
      b. $[[[_{RP}$ boys of the boys]] = $[[[_{NP}$ boys$]_i$]] – $\{[[[_{DP}$ the $[_{NP}$ boys $]_i$]]]\}$

- Zamparelli says that *dei* can be bound by a generic operator, contra *alcuni* and *qualche*, but his example (38) shows no generic interpretation. Generic readings are possible with *dei* only in the presence of a modifier and with a sub-kind reading.

(38) (alcuni degli italiani/ alcuni italiani/ qualche italiano/ degli italiani) amano gli spaghetti

The possibility of having overt numerals has been excluded for opacity reason, the *dei* cannot move hopping it. But then this is not a matter of economy, as claimed in the conclusions

4 Semantic considerations

4.1 Characterisations for indefinite determiners

Quantifiers can scope wider than the position in which they occur overtly, a behaviour that has been treated by assuming covert movement (QR) or a storing mechanism. However, they do not scope outside their own clause. A peculiarity of indefinites is that they can scope outside their own clause.
• As observed in section 2, *dei* nominals can enter all scoping relations.
• Chierchia, Zamparelli and Storto all characterise *dei* nominals as existential generalised quantifiers.
• Indefinite have been characterised also as choice functions, in particular to account for specific readings. For this reason, we explore this hypothesis in the following.

- Wide scope
  dei nominals can receive widest scope interpretation. This is also possible out of islands.

(39) a. Se muoiono dei miei parenti, erediterò una casa
          if DEI relatives of mine die, I will inherit a house
      b. Gianni sta cercando uno studente che abbia letto dei libri: *Guerra e pace* e *La divina commedia*
          G. is looking for a student who read DEI books: War and peace and The divine comedy.
      c. Gianni non crede alla possibilità che suo figlio legga dei libri: *Guerra e pace* e *La divina commedia*
          G. does not believe the possibility that his son read DEI books: War and peace and The divine comedy.

Island-insensitive QR runs into problems because it generates a non-existing reading (Ruys, 1992). The only wide scope interpretation (40) has conveys that there is a group of three relatives such that if each of them dies, I inherit a house. They all have to die for me to inherit a house. However, in the generalised quantifier interpretation in (41), the sentence will be true if there are three relatives of mine for each of whom it holds

that if s/he dies, I inherit a house. For some speakers, the wide scope reading of *dei* is only the one seen for (40), as (39a) means that the death of all the relatives of mine of a relevant group is required for me to inherit the house.

(40) If three relatives of mine die, I will inherit a house.

(41) $\exists$ three x (relative-of-mine(x) $\wedge$ (dies(x) $\rightarrow$ I inherit a house))

- Intermediate scope
  dei nominals can receive intermediate scope reading (42a). The availability of this reading can support an analysis as a choice function as done in (42b).

(42) a. La maggior parte dei revisori ha esaminato tutti i preventivi proposti da delle ditte che sembravano loro sospette
      b. for most rating experts x $\exists$ f (CH(f) $\wedge \forall$y ((budget(y) $\wedge$ f(suspicious firm) propose y) $\rightarrow$ x examined y))

- Narrow scope
  This case can be easily treated via an existential quantifier.
  Typically, analyses using choice functions have been proposed to treat specific readings of indefinites. *dei* nominals can also receive narrow scope, cf. the de dicto reading of sentence (6b), in which there is *cercare*, an intensional predicate..

  Choice functions can be used provided one admits that existential closure can take place at any level, see the three wide/intermediate/narrow scope readings of (43a) in (43b,c,d) respectively.

(43) a. Ogni genitore sta cercando dei regali
          Every parent is looking for presents
      b. $\exists f \forall$x [parent(x) $\rightarrow$ try(x, ^find(x,f(present)))]
      c. $\forall$x$\exists f$ [parent(x) $\rightarrow$ try(x, ^find(x,f(present)))]
      d. $\forall$x [parent(x) $\rightarrow$ try(x, ^[$\exists f \wedge$ find(x,f(present))])]

4.2 Plurality

- *dei* nominals refer to pluralities, cf (1a), (2a), (4) and (5).
- There are contexts where they can be interpreted as potentially referring to single individuals, namely, in questions, under negation and in the antecedent of conditionals. All these contexts do not carry existential import.

(44) Hai visto dei ragazzi?
      did you see DEI boys?

(45) Non ho trovato degli errori
      I did not find DEI mistake

(46) Se invitiamo dei filosofi, Max si offenderà.
      if we invite DEI philosophers, M. will be offended

1. This issue also arises with other instances of plurals in the same contexts, e.g. bare plurals and quantified nominals such as *no boys*.

2. Examples containing *dei* nominals under negation are marginal for some speakers, as opposed to Bare plurals (45). The use of N-words is preferred in this contest in Italian, which is a negative concord language, cf (47).

(47)   Non ho visto nessun ragazzo.
       I saw no boy

3. Plurality can be more easily challenged in questions with *dei* nominals than in questions with bare plurals. The mini-discourse with *dei* in (48a) is definitely better than the mini-discourse with a bare plural in (48b). Similar facts have been noted by Laca (1996) for Spanish.[5]

(48)   a.   A: Hai visto dei ragazzi?   Have you seen DEI boys?
            B: No, uno. / Sì, uno.   No, just one. / Yes, just one.
       b.   A: Hai visto ragazzi?   Have you seen boys?
            B: #No, uno. / Sì, uno.   No, just one. / Yes, just one.

- In the intermediate reading of (49), there is a plurality of politicians whose acting causes some problems. Speakers hesitate on whether there is a plurality of politicians for each people who is convinced to suffer mistreatment, or a plurality of individual politicians each of whom is mean toward one people.

(49)   Tutti erano convinti che la maggior parte dei loro problemi fosse causata da dei politici che li ostacolavano.
       Each of them was convinced that most of their problems were due to some politicians who were opposing them

The plurality in (49) might be due to co-variation. This explanation does not apply to (1a).

- According to Reinhart (1997), choice functions can be used to characterise plural indefinites, either by reducing plural sets to individuals, following Link (1983), in which case the predicate can remain the same, or by lifting singulars to sets (Scha, 1981), in which case the predicate must be lifted to the type $<<e, t>, t>$ so it can apply to the set argument.

Gutiérrez-Rexach (1999) has proposed to analyse Spanish *unos* as a group indefinite characterised as an existential generalised quantifier and exploits predicate shift.

(50)   Delle bandiere europee sventolano davanti a tre monumenti

4.3   Presupposition and partitivity

- discourse referent

  Bare plurals introduce a neutral discourse referent, *dei* nominals introduce referents that can be picked up, cf. (15).

- Indefinites can but need not be D-linked, partitives must be so. *dei* nominals and bare nominals cannot be D-linked .

- non-unique reference: sloppy identity in elliptical contexts is possible for weak definites, indefinites and *dei* nominals. No strict identity in (51c).

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[5]But we have not been able to get access to this paper so far.

(51)   a.   Lola went to the hospital and Alice did too
       b.   Lola saw a boy and Max did too
       c.   Luisa ha visto dei ragazzi, e così anche Daniele

(Strict) coreferential reading in (52a) and (52b), but (sloppy) non-coreferential reading in (52c).

(52)   a.   Luisa ha visto dei ragazzi, e anche Daniele li ha visti
       b.   Luisa ha visto dei ragazzi, e anche Daniele, quei ragazzi, li ha visti
       c.   Luisa ha visto dei ragazzi, e anche Daniele, dei ragazzi, li ha visti

ne in (53a) stands for *ragazzi*, as shown by the paraphrase in (53b).

(53)   a.   Luisa ha visto dei ragazzi, e anche Daniele ne ha visti
       b.   Luisa ha visto dei ragazzi, e anche Daniele, di ragazzi, ne ha visti

- the partitive effect induced by contrast
  Sentence (54a) implies that there are other boys that did not come, whereas (54b) behaves like (54c).

(54)   a.   alcuni dei ragazzi sono venuti
       b.   alcuni ragazzi sono venuti
       c.   dei ragazzi sono venuti

Sentence (54b) can have a partitive reading when the context introduces a partition. This can be seen also by the possibility of contrasting with *altri*, as seen in (21c). The difference among them is that *alcuni* is also able to induce a partitive reading autonomously, as witnessed by the possibility of contrasting with *gli altri*, cf. (21b).

(21)   a.   Alcuni dei ragazzi sono venuti, (gli) altri no
            some boys came, (the) others didn't
       b.   Alcuni ragazzi sono venuti, (?gli) altri no
            some boys came, (the) others didn't
       c.   Dei ragazzi sono venuti, (*gli) altri no
            DEI boys came, (the) others didn't

A partitive effect can result also from the presence of a subsective modifier (55).

(55)   a.   dei ragazzi simpatici sono arrivati, altri no
            DEI nice boys arrived, others didn't
       b.   alcuni ragazzi simpatici sono arrivati, altri no
            some nice boys arrived, others didn't

5   Syntax

5.1   Four types of nominal structures

(56) a.   Ho visto [$_{DP}\emptyset$ [$_{NP}$ ragazzi]]   bare nouns

   b.   Ho visto [$_{DP}$ quei/dei [$_{NP}$ ragazzi]]   DPs with an overt determiner

   c.   Ho visto [$_{QP}$ alcuni [$_{DP}\emptyset$ [$_{NP}$ ragazzi]]]   QPs without partitives

   d.   Ho visto [$_{QP}$ [$_{Q'}$ alcuni [$_{DP}\emptyset$ [$_{NP}$ N]]] [$_{PP}$ dei ragazzi]]   Full partitives

5.2   *di* as a marker of partitive Case

In the clause-internal position, bare nouns are not preceded by the preposition *di*, but can be preceded by *di* when left dislocated and must be preceded by *di* when right dislocated, cf. (Cardinaletti and Giusti, 1992).

(57) a.   Ho visto (*di) ragazzi.

   b.   (Di) ragazzi, ne ho visti.

   c.   Ne ho visti, *(di) ragazzi.

The same pattern is found when a quantifier is present.

(58) a.   Ho visto alcuni (*di) ragazzi.

   b.   (Di) ragazzi, ne ho visti alcuni.

   c.   Ne ho visti alcuni, *(di) ragazzi.

The clitic *ne* resuming bare nouns in the presence or absence of a quantifying determiner is obligatory.

(59) a.   Di pasta *(ne) abbiamo mangiata/o (tanta).

   b.   Di ragazze *(ne) ho viste/o (alcune).

   c.   Di vino *(ne) abbiamo comprato (molto).

   d.   Di ragazzi *(ne) ho visti/o (parecchi).

It triggers gender and number agreement with the noun. This agreement is optional for some speakers, obbligatory for others.

(60) a.   (Di) pasta ne abbiamo mangiata/#mangiato tanta.

   b.   (Di) ragazze ne ho viste/#visto alcune.

   c.   (Di) vino ne abbiamo comprato molto.

   d.   (Di) ragazzi ne ho visti/#visto parecchi.

   e.   (Di) pasta ne abbiamo mangiata/*mangiato.

   f.   (Di) ragazze ne ho viste/*visto.

   g.   (Di) ragazzi ne ho visti/* visto parecchi.

A parallel case can be made with definite nominals with or without a universal quantifier, with the only difference that the agreement is obligatory for all speakers:

(61) a.   La pasta l'abbiamo mangiata/*o tutta.

   b.   Le ragazze le ho viste/*o tutte.

   c.   Il vino l'abbiamo comprato tutto.

   d.   I ragazzi li ho visti/*o tutti.

Also accusative *l-* is obligatory

(62) a.   *La pasta abbiamo mangiata/o tutta.

   b.   *Le ragazze ho viste/o tutte.

   c.   *Il vino abbiamo comprato tutto.

   d.   *I ragazzi ho visti/o tutti.

• Clitic *ne* is uninflected, it resumes a DP endowed with gender, number, and (partitive) case, which is realized as *di* when the nominal is dislocated and is a null D when the nominal expression in in place. It can cooccur with existential quantifiers, which take DPs with partitive case as their complement.
• Clitic *l-* is inflected for gender and number, it realizes accusative case (dative is for example *gli/le*). It can cooccur with the universal quantifiers *tutti* and *entrambi* (all, both), which let case percolate to their DPs complements.

5.3   PP *ne*

In this capacity it does not trigger past participle agreement with the extracted nominal and is not obligatory in left or right dislocations. Furthermore, the preposition on the dislocated element is obligatory:

(63) a.   Ho sperimentato i benefici di questa medicina/di questo farmaco/ di queste medicine/ di questi farmaci.

   b.   (di questa medicina /ecc.) Ne ho sperimentato/i/*a/*e i benefici.

   c.   Di questa medicina /ecc. (ne) ho sperimentato/*i/*a/*e i benefici.

Notice that when *ne* resumes a possessor, it may optionally trigger agreement with the possessee. This cannot occur when *ne* resumes an oblique complement of the verb.

(64) a.   Ho parlato spesso di Maria/di Gianni/ dei ragazzi / delle ragazze.

   b.   (di Maria/di Gianni/ dei ragazzi / delle ragazze) Ne ho parlato spesso.

   c.   Di Maria/ Di Gianni/ Dei ragazzi / Delle ragazze (ne) ho parlato spesso.

This behaviour is shared by other prepositional clitics/dislocated PPs:

(65) a.   Ho parlato spesso con Maria/ con Gianni/ con i ragazzi / con le ragazze.

   b.   (con Maria/ con Gianni/ con i ragazzi / con le ragazze) Ci ho parlato spesso.

   c.   Con Maria/ Con Gianni/ Con i ragazzi / Con le ragazze (ci) ho parlato spesso.

5.4   *Ad interim* conclusions

The syntax and distribution of partitive *ne* is more similar to accusative *l-* than to prepositional *ne*, in that it is obligatory, it triggers past participle agreement, can cooccur with an appropriate quantifying determiner. Partitive *ne* cannot resume accusative DPs, QPs. For this purpose we must use the accusative clitic *l-*.

(66)   a.   *Tutti i ragazzi, ne ho visti.

      b.   *Alcuni ragazzi, ne ho visti.

      c.   *Dei ragazzi, ne ho visti.

(pace Zamparelli 2008: *So che ci sono dei folletti e prima o poi ne troverò*)

(67)   a.   *Dei folletti prima o poi ne troverò

      b.   Di folletti prima o poi ne troverò

(68)   a.   Tutti i ragazzi, li ho visti [e].

      b.   Alcuni ragazzi, li ho visti [e].

      c.   Dei ragazzi, li ho visti [e].

If clitic *l-* is a marker of accusative case on the empty category, we propose that dei N does not receive partitive but accusative.

(69)   a. $[_{PART}$ Di ragazzi], ne ho visti $[_{ACC}$ alcuni $[_{PART}$ ~~ragazzi~~]]

      b. $[_{ACC}$ Dei ragazzi], li ho visti $[_{ACC}$ ~~dei ragazzi~~]

      c. $[_{ACC}$ Alcuni (dei) ragazzi], li ho visti $[_{ACC}$ ~~alcuni (dei) ragazzi~~]

      d. $[_{ACC}$ I ragazzi], li ho visti $[_{ACC}$ ~~i ragazzi~~]

Accusative is the case of individual reference (in object position)

(70)   a.   Le ho viste arrivare: si chiamavano Marta, Maria, Teresa e Paola.

      b.   *Ne ho viste arrivare : si chiamavano Marta, Maria, Teresa e Paola.

      c.   OK Ne ho viste arrivare alcune : si chiamavano Marta, Maria, Teresa e Paola.

5.5   *dei ragazzi* is not similar to *alcuni (dei) ragazzi*

(71)   a.   Ne ho letti alcuni/molti/*dei/*questi

      b.   Li ho letti tutti /*dei/*questi

(Cardinaletti and Giusti, 2006)

(72)   a. $[_{DP}$ Ne] ho letti $[_{QP}$ alcuni/molti $[_{DP}$]]

      b. $[_{DP}$ Li] ho letti $[$tutti $[_{DP}$]]

(73)   a.   Ho letto $[_{DP}$ dei/ questi $[_{XP}$ libri]]

      b.   *$[_{XP}$ libri] ho letto $[_{DP}$ dei/ questi $[_{XP}$ libri]]

It is admittedly possible to have the XP totally null (with no resumptive clitic) in the complement of *questi* but not in the complement of *dei*, but in this case *dei* patterns with the distal demonstrative *quei*:

(74)   a.   Ho letto [questi $[_{XP}$ e]]

      b.   *Ho letto [dei $[_{XP}$ e]]

      c.   *Ho letto [quei $[_{XP}$ e]]

The impossibility of extracting the indefinite nominal under *dei* or of substituting it with a null pronominal is therefore not necessarily due to Chierchia's and Zamparelli's proposal to derive the structure of *dei* from an otherwise unprecedented incorporation procedure. It can instead be due to the particular morphosyntax of *dei*, suggested in (Cardinaletti and Giusti, 2011): The apparent definite article on *dei* is the same inflectional morpheme that occurs on the distal demonstrative *quei* and the prenominal adjective *bei*. On the latter element it is clearly devoid of any semantic function and is the marker of gender and number.

(75)   a.   i**l** bel ragazzo   vs.   il ragazzo è bel**lo**

      b.   **i** bei ragazzi   i ragazzi sono bel**li**

      c.   **gli** amici / i be**gli** amici   gli amici sono bel**li**

      d.   **la** bel**la** ragazza   la ragazza è bel**la**

      e.   **le** bel**le** ragazze   le ragazze sono bel**le**

This declension is not shared by other adjectives ending in *-llo*: *tranquillo, giallo*.

(76)   a.   un tranquil**lo** / *tranqui**l** ragazzo di campagna
        a quiet country boy

      b.   i tranquil**li** / *tranqui**i** ragazzi di campagna / *tranqui**gli** amici di Maria
        those quiet country boys / friends of Mary?s

(77)   a.   questo gial**lo** / *gia**l** mare/mosaico (real examples in google.it)
        this yellow see/mosaic

      b.   questi gial**li** / *gia**i** granelli di sabbia / *gia**gli** occhi da gatto
        these yellow sand grains / cat eyes

But it is shared by the distal demonstrative and by the indefinite determiner:

(78)   a.   de**l** /que**l** vino

      b.   de**i** /que**i** vini

      c.   de**gli** /que**gli** amici

      d.   del**la** /quel**la** pasta

      e.   del**le** /quel**le** ragazze

The structure proposed by Cardinaletti and Giusti is (79).

(79) $[_{DP}$ que-/de- $[_{D}$ i] $[_{FP}$ be- $[_{F}$ i]$[_{NP}$ ragazzi]]]

(80)   a. $[_{QP}$ $[_{Q}$ un*(o) o due] $[_{DP}$ corsi]]

      b. $[_{DP}$ [questi o quei] $[_{NP}$ corsi]]

      c.   *$[_{DP}$ [quei o questi] $[_{NP}$ corsi]]

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