The Nature of "Attributive Markers"

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Many world languages show "attributive markers" (AMs) in nominal modification structures. Mandarin *de* (1)-(3), and Japanese *-no/-na/-i* in are examples:

(1) a. Zhangsan **de** pengyou   b. Zhangsan **de** baozhi
       Zhangsan **'s** friend   Zhangsan **'s** newspaper
    c. Zuotian   **de** baozhi
       yesterday **'s** newspaper

(2)   Zhangsan **de** zuotian   **de** baozhi
       Zhangsan   yesterday   newspaper
      *Zhangsan **'s** yesterday **'s** newspaper

(3) a. piaoliang **de** yifu   b. ni zuotian   mai **de** shu
       pretty   cloth   ni yesterday buy   book
      *pretty 's cloth   *you yesterday bought 's book

(4) a. Taroo **-no** kyoodai   b. Taroo **-no** hon
       Taroo **'s** sibling   Taroo **'s** book
    c. Nihonzin **-no** gakusei
      *Japanese   student 'Japanese student (student who is Japanese)'

(5) a. Utukushi **-i** tori   b. Kirei **-na** uti
       beautiful   bird   clean   house
      *beautiful's bird   *house's clean'

Many proposals: AMs as complementizers, semantic conjunctions (or "meet" operators), type-shifters, articles, heads of ModP, PredP or deP/noP/etc., even grammatically functionless elements, inserted for purely phonological reasons.

In this talk I argue:
- the nature of AMs is clarified by the family of Iranian languages, which show rich variation in nominal structure.
- AMs are fruitfully assimilated to "reverse Ezafe" particles, as exemplified by the Caspian languages Gilaki and Mazandarani.
- Ezafe particles are essentially case-related elements, that appear when the elements they co-occur with have noun-like properties.
- Conclusion: *AMs* is essentially a case-related phenomenon.

I briefly sketch a theory of DP structure that executes some of these ideas technically.

1.0 Iranian Languages: A Very Brief Survey

For current purposes I will divide the Iranian languages into three groups: Ezafe languages, Reverse Ezafe languages, and non-Ezafe languages.

1.1 Ezafe Languages

Ezafe occurs in Modern Persian (Farsi), Kurdish (Sorani, Kurmanji), Zazaki/Dimili and Hawrami/Gorani. Basic pattern: [+N] heads are followed by complements & modifiers; when the latter are themselves nominal, Ezafe particle (EZ) occurs between, cliticized to the preceding element:

(6) a. N -**EZ** NP/AP/PP/nonfinite CP
    b. A -**EZ** NP
    c. Q -**EZ** NP   (for some Qs)
    d. P -**EZ** NP   (for some Ps)

Farsi (and Sorani Kurdish) exhibits the simplest form of Ezafe; the only variation in EZ is phonological (*é/yé*):

(7) **Modifiers & complements of Ns**
    a. del-**é**   sang   (N-**EZ** NP)
       heart-**EZ** stone   'stone heart'
    b. manzel-**é** John   (N-**EZ** NP)
       house-**EZ** John   'John's house'
    c. shahr-**é** Tehran   (N-**EZ** NP)
       city-**EZ**   Tehran   'Tehran city'
    d. Ali-**é** Ghozati   (N-**EZ** NP)
       Ali-**EZ** Ghozati   'Ali Ghozati
    e. tæxrib-**e**   shæhr   (N-**EZ** NP)
       destruction-**EZ** city   'destruction of the city'
    f. hordan-**é**   âb   (N-**EZ** NP)
       drinking-**EZ** water   'drinking of water'
    g. forunshandé-**yé** ketâb   (N-**EZ** NP)
       seller-**EZ**   books   'seller of books'
    i. otâq- **é** besyar kucik   (N-**EZ** AP)
       room-**EZ** very   small   'very small room'
    j. ketâb-**é** sabz-**é**   jâleb   (N-**EZ** AP-**EZ** AP)
       room-**EZ** green-**EZ** interesting 'interesting green book'

(8) **Complements of As**
    a. asheq-**e** Hæsæn   (A-**EZ** AP)
       in love-**EZ** Hasan   'in love with Hasan'
    b. negæran-**e** bæche   (A-**EZ** NP)
       worried-**EZ** child   'worried about the child'

c. montæzer-**e** Godot   (A-**EZ** NP)
   waiting-**EZ**   Godot   'waiting for Godot'

(9) **Partitives**
   a. tamâm-**é** sherkathâ   (Q-**EZ** NP)
     all-**EZ**   companies   'all/the-totality-of companies'
   b. tamâm-**é**-în sherkathâ   (Q-**EZ** NP)
     all-**EZ**-the   companies   'all/ the-totality-of the companies'

(10) **Finite and Reduced RCs**
   a. marde   **[ke   Nanazo mibine]**   (N FRC)
     the man REL Nanaz sees
     'the man who sees Nanaz'
   b. sandaliro **[ke   madarbozorg mibine]**   (N FRC)
     the chair   REL Grandmother   sees
     'the chair that Grandmother sees'
   c. in javân-**e**   **[az   suis bar gašte]**   (N-**EZ** RRC)
     this young-**EZ** from SW back turn
     'this young man back from Switzerland'
   d. aks-**e** **[čåp   šode   dar ruznâme]**   (N-**EZ** RRC)
     photo-**EZ** publication become in newspaper
     'the photo published in the newspaper'

(11) **Complements of (Certain) Ps**
   a. beyn-**e**   mæn-o to   (P-**EZ** NP)
     between-**EZ** you and me   'between you and me'
   b. væsæt-**e**   otaq   (P-**EZ** NP)
     in-the-middle-**EZ** room   'in the middle of the room'
   c. dor-**e**   estæxr   (P-**EZ** NP)
     around-**EZ** pool   'around the pool'
   d. bæqæl-**e** dær   (P-**EZ** NP)
     by-**EZ**   door   'by the door'
   e. kenar-**é** dærya   (P-**EZ** NP)
     next-**EZ** sea   'on the beach'
   h. xune-**yé** [kenar-**é** dærya]   (N-**EZ** [P-**EZ** NP])
     house-**EZ** next-**EZ** sea   'house on the beach'

1.2 Reverse Ezafe Languages

In Gilaki and Mazandarani, the Farsi/Sorani pattern generally inverts. Compls & mods precede their [+N] heads, and link via an invariant "reverse Ezafe" particle (REZ), which again cliticizes to the preceding element (12).

(12) a. NP/AP/PP -**REZ** N
    b.   NP -**REZ** A
    c.   NP -**REZ** P

Gilaki
(13) **Modifiers & complements of Ns**
   a. baɣ-**ə**   gul-an   (NP-**REZ** N)
     garden-**REZ** flower-PL   'garden flowers'
   b. John-**é**   xowne   (NP-**REZ** N)
     John-**REZ** house   'John's house'
   c. âb-**ə**   xurdan   (NP-**REZ** N)
     water-**REZ** eat   'drinking of water'
   d. surx-**ə**   gul   (AP-**REZ** N)
     red-**REZ** flower   'red flower'
   d. xayli kushtay(-**ə**) utâq   (AP-**REZ** N)
     very small(-**REZ**) room   'very small room'
   e. xujir-**ə**   sabz-**ə**   kitaab   (AP-**REZ** AP-**REZ** N)
     good-**REZ** green-**REZ** book 'good green book'

(14) **Complements of As**
   a. Hæsæn-**ə** aashiq   (NP-**REZ** A)
     Hasan-**REZ** in love   'in love with Hasan'
   b. zak-**ə**   negarown   (NP-**REZ** A)
     child-**REZ** worried   'worried about the child'
   c. Gudut-**ə**   muntazir   (NP-**REZ** A)
     Godot-**REZ** waiting   'waiting for Godot'

(15) **Complements of Ps**
   a. divaar-**e** sar   (NP-**REZ** P)
     wall-**REZ** top   'up the wall'
   b. væsæt-**e** otaq   (NP-**REZ** P)
     center-**REZ** room   'in the middle of the room'
   c. istaxr-**e** dowri   (NP-**REZ** P)
     pool-**REZ** around   'around the pool'
   a. daryaa(-**ə**) kinaar-**ə** xowne   ([NP-**REZ** P]-**REZ** N)
     sea(-**REZ**) next-**REZ** house 'house beside the sea'

Mazandarani (Sari)
(16) a. dār-**e**   sar   (NP-**REZ** N)
     tree-**REZ** top   'top of the tree'
   b. 'asb-**e** kale   (NP-**REZ** N)
     horse-**REZ** head   'horse's head'
   c. farhād-**e**   xāxer-**e** hemsāye   (NP-**REZ** N)
     Farhad-**REZ** sister-**REZ** neighbor 'neighbor of Farhad's sister'
   d. me berār-**e** rafeq-**e** ketāb   (NP-**REZ** PN)
     1sg brother-**REZ** friend-**REZ** book 'book of my brother's friend'

(17) a. gat-**e** sere   (AP-**REZ** N)
     big-**REZ** house   'big house'
   b. belend-**e** ku   (AP-**REZ** N)
     high-**REZ** mountain   'tall mountain'

c. kučik-**e**   'otāq   (AP-**REZ** N)
   small-**REZ** room   'small room'
d. lāqer-**e** sefid-ru-**e**   zenā   (AP-**REZ** AP-**REZ** N)
   thin-**REZ** pale-face-**REZ** woman 'thin, pale-faced woman'

(18) a. dār-**e**   ben   (NP-**REZ** P)
     tree-**REZ** under   'under a tree'
  b. me 'otāq-**e**   dele   (NP-**REZ** P)
     1sg room-**REZ** in   'in my room'
  c. me 'berār-**e**   dembāl   (NP-**REZ** P)
     1sg brother-**REZ** after   'after my brother'

(19) **Finite and Reduced RCs (Gilaki)**
   a. u   mard-**e** **[ki Hasan (diru)   bide   ]**   (N FRC)
      that man-**REL** that Hasan (yesterday) seePST3sg
      'the man that Hasan saw (yesterday)'
   b. 'i   **[suyis-e ji   vagarse   ]** juvon   (RRC-**REZ** N)
      this [SW-**REZ** from back-turn **REZ?**] young
      'this young (person) returned from Switzerland'

(20)   *FARSI*   *CASPIAN*
   a. N -**EZ** RRC   b.' RRC -**REZ** N   "Mirror Inverse"
   b. N FRC   a.' N FRC   Identical!

1.3 Non-Ezafe Languages: Pashto

Pashto is not considered to show Ezafe & generally resembles English. Numerals, demonstratives, attributive As are prenominal; RCs are postnominal:

(21) a. **pindzə** pəghle   b. **agha** moṭar
       five   girls 'five girls'   that car   'that car'

(22) a. **wəgay** alək
       hungry boy   'hungry boy'
   b. agha njaləey [**tse   kamís akhli**]
      that girl   who dress bought   'that girl who bought a dress

Pashto distinguishes 2 numbers (S/P), 2 genders (M/F), 2 cases (Direct/Oblique). Attributive As agree in these features according to membership in one of 4 declension classes (*təg*- 'thirsty' below is class 2):

(23) a. [**təgay alək**] wobə ghwāṛi   **MDS**
        thirsty boy   water want3S   'the thirsty boy wants water'
   b. [**təgi   aləkān**] wobə ghwāṛi   **MDP**
      thirsty boys water want3P   'the thirsty boys want water'

c. [de **təgi alək** khwla] wəcha wa   **MOS**
   of thirsty boy mouth dry was   'the thirsty boy's mouth was dry'
c. [de **təgi aləkān** khwla] wəcha wa   **MOP**
   of thirsty boys mouths dry were   'the thirsty boys' mouths were dry'
d. [**təge peghla**] wobə ghwāṛi   **FDS**
   thirsty girl   water want3S   'the thirsty girl wants water'
e. [**təge peghlə**] wobə ghwāṛi   **FDP**
   thirsty girls   water want3P   'the thirsty girls want water'
f. [**de təge peghlə khwla**] wəcha wa   **FOS**
   of thirsty girl   mouth dry was 'the thirsty girl's mouth was dry'
g. [**de təgo peghlo khwla**] wəcha wa   **FOP**
   of thirsty girls   mouths dry were 'the thirsty girls' mouths were dry'

2.0 The Nature of EZ & REZ

Basic questions:

- What <u>are</u> EZ/REZ?
- What governs their occurrence in Farsi/Sorani and Gilkaki/Mazandarani, and their apparent absence in Pashto?

Reconsider English genitives. These come in two forms:

- prepositional genitives in *of*   strictly postnominal (24a)
- "Saxon" genitives in *'s*   (almost) strictly prenominal (24b)

(24) a. neighbor **of** John   b. John **'s** neighbor

(25) a. [$_N$ drinking] **of** water   c. [$_A$ envious] **of** Max
   b. [$_N$ seller] **of** books   d. [$_A$ desirous] **of** money

(26) a. [$_N$ letter] **of** yesterday   d. [$_N$ field] **of** blue (cf. *blue field*)
   b. [$_N$ heart] **of** stone (cf. *stone heart*)   e. [$_N$ book] **of** your choosing
   c. [$_N$ thing] **of** beauty (cf. *beautiful thing*)   (cf. *book that you can choose*)

(27) a. [$_{PP}$ because **of** those problems]   (cf. [$_P$ by [$_N$ cause]])
   b. [$_{PP}$ in spite **of** that fact]   (cf. [$_P$ in [$_N$ spite]])
   c. [$_{PP}$ in front **of** that building]   (cf. [$_P$ in [$_N$ front]])
   d. [$_{PP}$ inside (**of**) that box]   (cf. [$_P$ in [$_N$ side]])

Of is widely analyzed as present for case reasons: nominal ([+N]) elements don't check case on nominal compls/mods. *Of* is inserted to do this.

2.1 Ezafe: Super *Of !*

Samiian's Empirical Generalization (1983/1994; cf. also Karimi and Brame 1986): Ezafe occurs between a [+N] head and its [+N] complements/modifiers.

(28) a. N -**EZ** NP/AP
　　 b. A -**EZ** NP

(29) Partitive-Q -**EZ** NP

(30) a. N *-**EZ** FRC
　　 b. N -**EZ** RRC

What about P, which is not usually thought of as [+N] ?

(31) **Class 1 Ps** (reject Ezafe)
　　 a. be (*- **yé**) Hæsæn
　　　 to (-**EZ**) Hasan　　　　'to Hasan
　　 b. æz (*-**é**) Hæsæn
　　　 from (-**EZ**) Hasan　　　'from Hasan'
　　 c. ba (*-**yé**) Hæsæn
　　　 with (-**EZ**) Hasan　　　'with Hasan'
　　 d. dær　　 (*-**é**) Hæsæn
　　　 in/at/on (-**EZ**) Hasan　'in/at/on Hasan'

(32) **Class 2 Ps** (permit or require Ezafe)
　　 a. zir　　 (-**é**) miz
　　　 under (-**EZ**) table　　　'under the table'
　　 b. ru (-**ye**) miz
　　　 on (-**EZ**) table　　　　'on the table'
　　 c. bala (-**yé**) divar
　　　 up (-**EZ**)　 wall　　　　'up the wall'
　　 d. jelo　　 (- **yé**) Hæsæn
　　　 in front of (-**EZ**) Hasan　'in front of Hasan'

(33) a. beyn-**é**　　 mæn-o to
　　　 between-**EZ** you and me　'between you and me'
　　 b. væsæt-**é** otaq
　　　 center-**EZ** room　　　'in the middle of the room'
　　 c. dor-**é**　　 estæxr
　　　 around-**EZ** pool　　　'around the pool'
　　 d. bæqæl-**é** dær
　　　 by-**EZ**　 door　　　　'by the door'

(34) a. ræft bala (-**yé** deræxt)
　　　 went up　 -**EZ** tree　　'went up (the tree)'

　　 b. ræft ba *(Hæsæn)
　　　 went with Hasan　　　'went with Hasan'
　　 c. in ru
　　　 this top　　　　　'up here'
　　 d. un zir-a
　　　 that under-PL　　　'way down there'
　　 e. æks-**é**　　 ru-**yé** miz
　　　 picture-**EZ** on-**EZ** table　'picture on the table'
　　 f. *æks-**é**　　 dær ganje
　　　 picture-**EZ** in closet　　'picture in the closet'

Conclusion: Class 2 Ps are nominal in nature, as suggested by paraphrases (*jelo* 'in-front,' *væsæt* 'in-the-middle'). They are comparable to the English complex PPs like *in-spite* or *because*; optionality of Ezafe in (32a-d) is comparable to *of* optionality in (23d) By contrast, Class 1 Ps are true [-N]'s. Hence no Ezafe.

Samiian's Hypothesis: Ezafe is a clitic, preposition-like element ("Super-*Of!*") that checks case on the following element, and cliticizes onto the preceding one:

　　　　cliticizes ↓
(35) a.　　　　 N [$_{EzP}$ -**EZ** NP/AP/PP/nonfinite CP]
　　　　　　　　　　　　　　　　　 checks case

　　 b. A [$_{EzP}$ -**EZ** NP]
　　 c. P [$_{EzP}$ -**EZ** NP]

(36) a. *[$_N$ man] **of** tall　　(cf. *tall man, man of (great) height*)
　　 b. *[$_N$ field] **of** nearby　(cf. *nearby field*)
　　 c. [$_N$ temperature] (***of***) inside　(cf. *temperature inside,*
　　　　　　　　　　　　　　　　　　 temperature of the interior)

Karimi and Brame (1986): Ezafe lgs are "super-nominal": Ns, As, many Ps, reduced/nonfinite RCs are in fact all categorially <u>nouns</u> and require case-checking. By contrast, finite CP compls/mods, true Ps and PPs do not.

2.2 Reverse Ezafe Languages: Super *'s !*

(37) a. neighbor **of** John　　　　b. John **'s** neighbor

(36) a. *?water **'s** [$_N$ drinking]　(cf. *drinking of water*)
　　 b. *books **'s** [$_N$ seller]　　(cf. *seller of books*)
　　 c. *Max **'s** [$_A$ envious]　　(cf. *envious of Max*)
　　 d. *money **'s** [$_A$ desirous]　(cf. *desirous of money*)

(37) a. [N water drinking]   c. [N Max envy]

    b. [N book seller]   d. [N money desire]

(38) a. yesterday **'s** letter   (cf. *letter of yesterday*)
    b. stone (*'**s**) heart/stoney heart   (cf. *heart of stone*)
    c. blue (*'**s**) field   (cf. *field of blue*)
    d. *your choosing (**'s**) book   (cf. *book of your choosing*)

Imagine Ezafe-like languages that are "super-nominal" - As, Ps, reduced/nonfinite RCs are essentially Ns and require case-checking - but which generalize the *'s* genitive strategy – "Super *'s*"!

Proposal: REZ-languages are "Super *'s*" languages. REZ is a generalized version of prenominal genitive marking.

Follow-up Questions: But what <u>is</u> REZ/*'s* ? ('Lots of possibilities (39).) And why are REZ/*'s* phrases <u>prenominal</u>, in contrast to <u>postnominal</u> EZ/*of*-phrases?

(39) a. [PP John [P **'s**]] picture   (cf. *picture* [PP [P ***of***] *John*])
    b. [DP John [[D **'s**] book]   (cf. [TP *John* [[T ***will***] *leave*])
   c. [DP John**'s** [[D **e**] book]   (cf. [TP *He(NOM)* [[T ***will***] *leave*])

2.2.1 Case Concord. Traditional grammars standardly describe Ns as being inflected for case and φ-features, with attributive elements (including articles and adjectives) as agreeing with them, or exhibiting "concord".

(40) all**ar**   þess**ar**   þrj**ár**   nyj**u**
    all.FEM.PL.NOM these.FEM.PL.NOM three.FEM.PL.NOM new.FEM.PL.NOM
    kennig**ar**
    theories.FEM.PL.NOM
    'all these three new theories'

Implication: Case is "real" on N, but present merely as "agreement" on the rest.

(41)

Concordial   "Real"
Inflection   Inflection
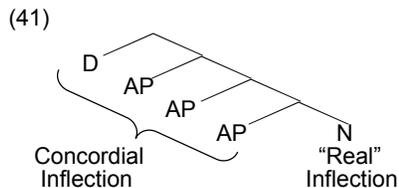
This view accords with syntactic analyses of case as a probe-goal relation. Probe scans c-command domain, seeking the inflectional values on its goal (N), agreeing with various elements on the path between them:

(42) a.   b.
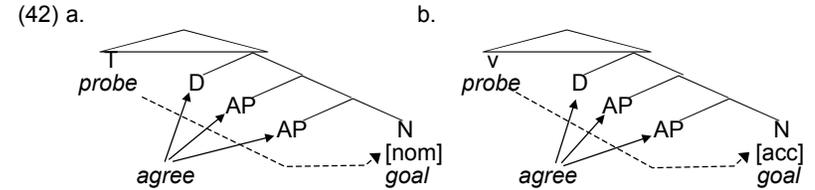
Note that to agree with N on this picture, an element α must lie between the case probe (T/v) and case goal (N):

(43) a. [T/v . . . [α . . . [. . . N]]   ✓

    b. [α . . . [T/v . . . N] . . . α]   ✗   (α lies outside T/v's domain)

    c. [T/v . . . [N . . . [. . . α]]   ✗   (scan terminates before reaching α)

2.2.2 Concordializers. Languages have devices for converting items that are valued for case to ones that merely agree for case – "adjectivalization"/"concordialization".

(44) a. 'kniha **Jan-a**   Upper Sorbian (Corbett 1987).
    book Jan-GENSG
    'book of Jan's'
    b. **Jan-ow**-a   knih-a   "possessive adjective"
    Jan-POSS-NOMSGFEM book-NOMSGFEM
    'Jan's book'

The possessive (*Janow*) is adjectival: it exhibits the same agreement forms as attributive adjectives, and occurs in the same position, preceding N.

Suppose one had a "super-nominal" language. Strategies for case:
- deploy a generalized case checker, allowing case by <u>checking/assignment</u>.
- deploy a generalized "concordializer," allowing case by <u>agreement</u>.

Constructions of the first sort would be complement-like, constructions of the second sort would be attributive.

Claim: The first strategy corresponds to EZ lgs: -EZ is "super of", a generalized checker/assigner. The second corresponds to REZ lgs: REZ is "super *'s*", a generalized adjectivalizer/ concordializer.

(45) a. N [$_{EzP}$ -**EZ** XP]   -*EZ checks case on NP (or DP)*

           checking

    b. XP-**REZ** N   -*REZ adjectivalizes NP (or DP),*

                       allowing agreement with N

        agreement

2.3 Is One Pattern More Basic?

If the above is correct, EZ and REZ lgs represent "pure" versions of what we find "mixed" in English. English contains *of-* and *'s*-genitives (46a,b). EZ lgs contain only the former (46c). REZ lgs contains only the latter (46d).

(46) a. a house **of** John's   (English)

    b. John**'s** house

    c. manzel-**é** John   (Farsi)

      house-**EZ** John

    d. John-**é**   xowne   (Gilaki)

      John-**REZ** house

In TG, the two constructions have not been viewed symmetrically; the *'s*-genitive has been analyzed as deriving from an *of*-genitive structure by movement (47a,b). Is the same true in REZ lgs? Is prenominal position derived (48a,b)?

(47) a. _____ house [**of John's**]

    b. John's house [John's]

(48) a. _____ xowne [John-**é**]

       house   John-**REZ**

    b. John-**é** xowne [John-é]

2.3.1 Clausal Modifiers and Complements.
Recall that Farsi is "positionally consistent" in its treatment of clausal mods & compls to N, whereas Caspian lgs are not. In Farsi, all are postnominal: non-finite, reduced relatives (RRCs) link via Ezafe (49), whereas finite relatives (FRCs) don't (50).

(49) a. in javân –**e**   [az suis   bar gašte]

      this young-**EZ** from SW back turn

      'this young man back from Switzerland'

    b. N -**EZ** RRC

(50) a. marde   [**ke**   Nanazo   mibine]

      the man REL Nanaz   sees

      'the man that sees Nanaz'

    b. N FRC

Caspian lgs partially follow this pattern: RRCs link via Reverse Ezafe (51) and FRCs don't (52). BUT: only RRCs appear prenominally. Caspian FRCs appear post-nominally, just as in Farsi. Hence EZ-REZ lgs are not simple mirror images. Why?

(51) a. 'i   [suyis-**e**   ji   vagars**e**   ] juvon

      this [SW-**REZ** from back-turn **REZ?**] young

      'this young (person) returned from Switzerland'

    b. RRC-**REZ** N

(52) a. u   mard-**e**   [ki Hasan (diru)   bide   ]

      that man-**REL** that Hasan (yesterday) seePST3sg

      'the man that Hasan saw (yesterday)'

    b. N FRC

Case assigners (*of*) and concordializers are not equivalent. If postnominal position is basic, the first will allow a case-dependent element (XP) to remain *in situ* (53a). The second will not (53b). Movement to an agreement position is also required (53c).

(53) a.   N [**of/-EZ** XP]

    b.   N [XP-**'s/-REZ**]   ✕ (agreement is impossible here)

    c. XP-**'s/-REZ** N [XP-'s/-REZ]   ✓

But for non-case-dependent items like FRCs, neither a checker/assigner nor a concordializer is required. These can occupy base position "unassisted" (50b)/(52b). Since FRCs occur in the same postnominal position in Farsi & Gilaki, it is natural to take this as the base position for both.

2.3.2 Pashto Again.
Pashto is "non-Ezafe" insofar as APs and RRCs occur prenominally without EZ/REZ and agree with N (recall 21-23). BUT Pashto exhibits Ezafe-like possessives. As in REZ lgs, Pashto possessives are prenominal, marked by a particle (*de*). But as in EZ lgs the particle precedes the possessor (54a-e).

(54) a. [**de asad**] [**nəway**] moţar

      of Asad   new   car

      'Asad's new car'/a new car of Asad's'

    b. [**de mēz**] andāze

       of table   length

       'table's length'/'length of the table'

    c. [**de γwa**] γwashi

       of cow   meat

       'beef'/'cow's meat'/'meat of the cow'

    d. [**de Yāsir-jan**] lidal

       of Yaser   seeing/visiting

       'visiting (of) Yaser'

    e. [**de mēz**] landey

       of table   under

       'under the table'/'*the table's under(neath)'

Pashto possessives resemble "fronted Farsi," where "EzP" has raised (55):

(55) a.   N [EzP EZ NP]
    b. [EzP EZ NP] N [EzP EZ NP]

    c.   moṭar [de Asad]
    d. [de Asad] moṭar [de Asad]

Evidence for Pashto possessor movement: PPs whose objects contain a possessor. Poss occurs, not at the edge of NP/DP (56a), but at the edge of PP (56b)! Pashto renders English *with Asad's knife* as "Asad's with knife (57a). This extends to possessor-like, locative constructions (54e).

(56) a. [PP P [*de* **NP** N] (P)]   ✗
    b. *de* **NP** [PP P [N] (P)]   ✓ !

(57) a. **de asad** [PP **pə** chāqú]
      of Asad   **with** knife   'with Asad's knife'
    b. **de asad** [PP **lə** nəwi moṭar **na**]
      of Asad   **from** new car   **from** 'from Asad's new car'
    c. [**de kitābuna**] [PP **tar** maynẓ]
      of books   at   between   'between/in-the-midst-of the books'

Compositionality <u>strongly</u> implies possessor movement (58a). We might generalize to movement from postnominal Ezafe-type position to edge of NP/DP (58b) or PP (58c), whichever is maximal.

(58) a. [*de* NP] [PP P [… *de* **NP** …]]

    b. [NP/DP [*de* NP] N [*de* **NP**]]

    c. [*de* NP] [PP P [N [*de* **NP**]]]

3.0 DP Shells.

An idea widely pursued in early generative grammar was that nominal modifiers were <u>selected</u> by the article (Art), either before it combined with N (59a), or at the same time (59b). In other words they constituted arguments of Art/D.
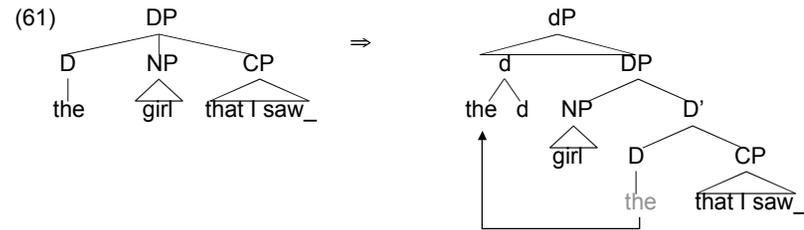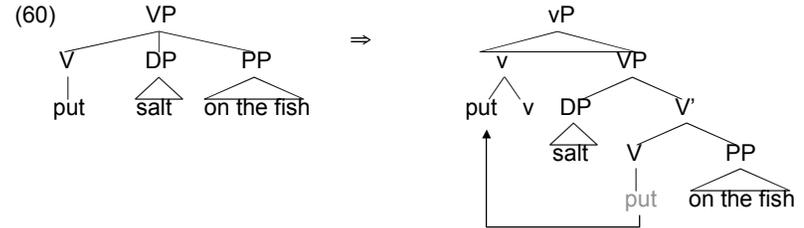
(59) a. ***The ARTICLE-S Analysis***   b. ***The ASPECTS Analysis***
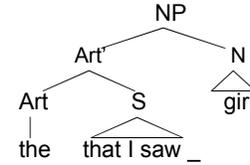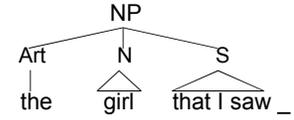
This idea can be recast in modern "shell theory", taking also the idea that nominals are headed by D (DPs). Compare VP/vP (60) and DP/dP (61):

(60)

(61)

This view generalizes to all postnominal modifiers; all constitute initial arguments of D, stranded by D-raising (62); it also extends to complements of triadic Ds (63).

(62) a. [dP Pro [d' **the** [DP lecture [D' t [DP **Thursday**]]]]]

    b. [dP Pro [d' **some** [DP stars [D' t [XP **visible**]]]]]

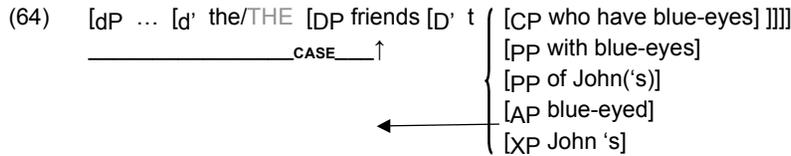   c. [dP Pro [d' **every** [DP jewel [D' t [XP **stolen**]]]]]

(63) a. [dP Pro [d' **every** [DP boy [D' t [PP **but/except Bill**]]]]]

    b. [dP Pro [d' **more** [DP women [D' t [PP **than men**]]]]]

Suppose:
- so-called nominal complements project in the low position of CP, as complements of D
- (intersective) nominal modifiers project in the low position of CP, as complements of D (Keenan and Stavi's (1986) "complex D hypothesis")
- just as [+N] args of v/V require case, [+N] args of d/D require case

Consequences:
- Mods/compls that <u>don't</u> bear Case features (CPs, true PPs) can stay *in situ*
- Mods/compls that <u>do</u> bear Case features (APs, XPs) must move to a site where agreement is possible, unless some other means is available.

(64) [dP … [d' the/THE [DP friends [D' t ⎧ [CP who have blue-eyes]]]]]
       _____CASE___↑   [PP with blue-eyes]
                                          [PP of John('s)]
                                          [AP blue-eyed]
                                          [XP John 's]

(65) **Ezafe** - **Farsi**
  a. in   ketâb - é jâleb
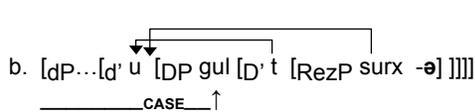   DEF book -EZ interesting   'the interesting book.'
  b. [dP…[d' în [DP ketâb [D' t [EzP -é jâleb]]]]]
     _____CASE__↑   ↑CASE↑
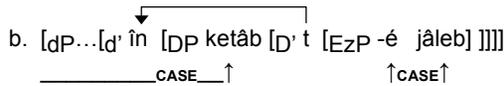
(66) a. in   marde [ke Nanazo   mibine]
        DEF man   that Nanaz   sees   'the man that sees Nanaz'
     b. [dP…[d' în [DP marde [D' t [ke Nanazo mibine]]]]]
        _____CASE__↑
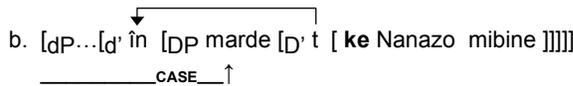
(67) **Reverse Ezafe** - **Gilaki**
  a. u   surx-ə gul
     that red-**REZ** flower   'that red flower'

  b. [dP…[d' u [DP gul [D' t [RezP surx -ə]]]]]
     _____CASE__↑

(68) a. u   mard-**e** [ki Hasan bide   ]
        that man-**REL** that Hasan seePST3sg   'the man that Hasan saw'
     b. [dP…[d' u [DP mard [D' t [CP -**e** ki Hasan bide]]]]]
        _____CASE__↑
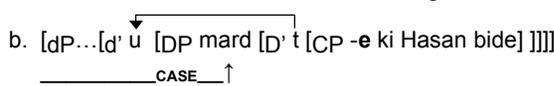
4.0 EZ/REZ Elsewhere

As noted above, many world languages show attibutive markers, with distributions similar to Iranian. [+N] prenominal modifiers in Chinese exhibit the particle *de*:

(59) a. Zhangsan **de** xiezi   b. meiguo **de** yinhang
        Zhangsan DE shoe   America DE bank
        'Zhangsan's shoe(s)'   'American bank(s)'
     c. hong **de** huaping
        red   DE vase
        'red vase(s)'

This construction is highly reminiscent of -REZ. Li (1985) notes an interesting split in "PP" behavior. Some PPs don't co-occur with *de* (60), but some do (61).

(60) a. *[**cong Meiguo**] de ren   b. *[**wei ta**] de wuhui
        from America   man   for him   party
        'man from America'   'party for him'

(61) a. [**Zhuozi –shang**] de shu   b. [**Jia   -li**] de shu
        table   -on   book   house -in/at   book
        'book on the table'   'book in/at the house' ?

Li (1985): the boldfaced items in (60) are true PPs, but those in (61) are locative nominals ('table-surface', 'house-interior'). The latter occur freely with place nouns *mian/bian/tou*' side, which can in fact head subjects:

(62) a. Zhuozi -shang (**mian/bian/tou**) you shu
        table   -on   side   have book
        'There is a book on the table'
     b. Wo zai zhuozi-shang (**mian/bian/tou**) xie   zi
        I   at table -on   side   write word
        'I write words on the table'
     c. Shang-**mian** hen ganjing
        Upper-side   very clean
        'The upper side is clean'

Consider also RCs. These occur prenominally and uniformly with *de*:

(63) a. [cong Meiguo lai] **de** ren   b. [wei ta kai] **de** wuhui
        from America come   man   for him open   party
        'man from America'   'party thrown for him'
     b. wo mai **de** shu
        I buy DE book
        'the book(s) which I bought'

Li (1985) and Tsai (1995) observe that clauses have the same basic distribution as nominals, occurring after V and P – in case-checking positions:

(64) a. Wo dui [**ta bu   neng lai**] hen bu gaoxing
    I   to   he not can come very not happy
    'I am not happy about (the fact that) he cannot come.'

  b. Wo dui [**zheijian shi**] hen bu gaoxing
    I   to   this   matter very not happy
    'I am not happy about this matter.'

  c. Ta quan   ta [**bu yao lai**]
    he persuade him   not need come
    'He persuaded him not to come.'

  d. Ta quan   ta [**sheme shi**]
    he persuade him   what   matter
    'What did he persuade him of?'

Li 's Generalization: *de* occurs uniformly with nominal elements.
Li 's Hypothesis: *de* is a case-marking element.

Chinese as a REZ Language: This pattern strongly resembles that in EZ/REZ lgs: many elements that are non-nominal elsewhere are nominal in Chinese. *De* has the distribution of a case-related element. (see also Cheung 20006a,b).

One deviation from the Caspian pattern: Chinese has no finite/postnominal RCs. In effect, Chinese RCs behave uniformly like Caspian RRCs. This is perhaps unsurprising since Chinese lacks tense, and any marking of finiteness. Maybe Chinese RCs should be seen as parallel to Turkish

Summary
- Attributive markers are widespread and puzzling, however variation with Iranian lgs. places them within a clearer parametric context.
- Prenominal AMs in some Iranian lgs. (REZs) are plainly related to postnominal Ezafe elements (EZs) in others.
- My proposal (following Samiian 1994): EZ and REZ are case elements. EZ is a generalized case assigner/checker ("Super *of*") and REZ is a generalized concordializer ("Super *'s*")
- Generalizng from Englsih genitives, its plausible to think these variations are derivable from a single source, with Ezafe lgs. displaying the base, post-nominal position for nominal compls & mods..
- The fundamental parameter (following Karimi and Brame 1986) is the super-nominal character of these languages: the fact that many elements that are non-nominal elsewhere are projected as Ns.
- Chinese *de* seems a good candidate for a REZ language. There are many others.

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