Chinese as a Reverse Ezafe Language

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Abstract: In this paper, I argue that the nature of de can be clarified by comparing Chinese to the family of Iranian languages, which show rich variation in nominal structure, but are genetically unrelated to it. I show that Chinese de has (in particular) the essential properties of a "reverse Ezafe" particle, as exemplified by the Caspian languages Gilaki and Mazandarani. As I've argued elsewhere following a line of research initiated by Samiian (1983, 1994), Ezafe particles are essentially case-related elements, appearing when the items they co-occur with have noun-like properties. I conclude, following Li (1985), that Chinese de is essentially a case-related phenomenon, which occurs (I suggest) in virtue of pervasive noun-like behavior in the relevant Chinese expressions.

Keywords: Chinese, Ezafe languages, Typology, Universal Grammar

Consider this simple question: Can the grammar of a given language be determined on the basis of data from that language alone? The answer seems obvious at first; of course it can. Children do it
all the time. Children of monolingual, Mandarin-speaking parents, raised in monolingual Mandarin-speaking communities, acquire the grammar of Mandarin with no input from other languages. They do this every year, in the millions.

But what about linguists, faced with task of describing the grammar? Can they do the same? On reflection the answer is far from clear. Modern linguistic research strongly suggests that children come to acquisition armed with a "Universal Grammar" (UG) that supports learning by sharply constraining "grammar space". Children "know" this space in advance, reducing their task to one of "selecting" among a (highly limited) set of candidate grammars that UG admits, based on their input data. But linguists are not in this fortunate position. We come to description armed, not with UG, but only current linguistic theory, something far weaker. We do not know grammar space in advance, what are or are not reasonable candidate analyses for the grammars of particular languages, or for the constructions those languages contain. Rather we must work out the grammars and constructions of particular languages and the nature of UG simultaneously. Given the scope of this challenge, it is entirely conceivable — indeed, highly likely — that linguists might never be able to conclusively determine the grammar of a particular language using data from that language alone — that, unlike children, we cannot figure out Chinese using only Chinese, and must appeal to a wider data set.

In this paper I will consider a particular case study, drawn from Chinese, illustrating this general point. The particle de in Mandarin nominals is puzzling. English speakers learning Chinese often assimilate it to prenominal's in constructions like (1a-c). But this analysis soon fails them, as they discover that de allows
recursion, which's never does (2), and that it occurs in modification structures where's is impossible (3a,b) (Tang 1993).

So what is de?

(1) a. Zhangsan de pengyou
    Zhangsan 's friend
b. Zhangsan de baozhi
    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
    pretty clothes
    'pretty 's clothes
b. ni zuotian mai de shu
    you yesterday buy book
    'you yesterday bought 's book

There have been a bewildering variety of proposals about de in the literature of Chinese grammar. De has been analyzed as a complementizer, a semantic conjunction (or "meet" operator), an article, a "linker", the head of a ModP, PredP or DeP phrase, even a grammatically functionless element, inserted for purely phonological reasons. Deciding between these proposals is difficult, even appealing to Sinitic, given that other languages in that group show similar grammars, with a matching particle of largely identical distribution. It's fair to say that Chinese grammarians have achieved no consensus on the nature of de, despite intensive study.
In this paper, I argue that the nature of *de* can be clarified by comparing Chinese to the family of Iranian languages, which show rich variation in nominal structure, but are genetically unrelated to it. I show that Chinese *de* has (in particular) the essential properties of a "reverse Ezafe" particle, as exemplified by the Caspian languages Gilaki and Mazandarani. As I've argued elsewhere following a line of research initiated by Samiian (1983, 1994), Ezafe particles are essentially case-related elements, appearing when the items they co-occur with have noun-like properties. I conclude, following Li (1985), that Chinese *de* is essentially a case-related phenomenon, which occurs (I suggest) in virtue of pervasive noun-like behavior in the relevant Chinese expressions. I begin with a brief survey of the Iranian facts.

1 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" refers to a particle that occurs in Modern Persian (Farsi), Kurdish (Sorani, Kurmanji), Zazaki (Dimili) and Hawrami (Gorani). In these languages, nominal ([ + N]) heads are followed by complements and modifiers. In certain cases, an Ezafe particle (-EZ) occurs between them, cliticized to the preceding element. The basic patterns are schematized in (4):

(4) 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 exhibits the simplest form of Ezafe, the only variation in EZ being phonological (έ/έ)⁰. (5a-g) illustrate the case of a noun head followed by a nominal complement or modifier. (5h) shows a noun head followed by an attributive adjective. (5i) shows that the Ezafe construction is recursive insofar as multiple attributive adjectives trigger multiple Ezafes⁰.

(5) 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-é shæhr (N-EZ NP)

   destruction-EZ city ‘destruction of the city’

f. hordan-é åb (N-EZ NP)

   drinking-EZ water ‘drinking of water’

g. forunshandé-yé ketâb (N-EZ NP)

   seller-EZ books ‘seller of books’

h. otâq-é besyar kucik (N-EZ AP)

   room-EZ very small ‘very small room’

i. ketâb-é sabz-éjâleb (N-EZ AP-EZ AP)

   book-EZ green-EZ interesting ‘interesting green book’

(6a-c) illustrate the case where Ezafe surfaces in an adjective
phrase (AP) between the adjectival head and a nominal (NP) complement;

(6) Complements of As

a. asheq-é  Hæsæn   (A-EZ NP)
   in love-EZ Hasan 'in love/enamored with Hasan'

b. negæran-é  bäche   (A-EZ NP)
   worried-EZ child-PL 'worried about the children'

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

Ezafe also occurs in Farsi between some quantificational elements (Qs) and their restriction phrase (7a,b):

(7) Partitives

a. tamâm-é  sherkathâ   (Q-EZ NP)
   all-EZ companies 'all/the-totality-of companies'

b. tamâm-é -in sherkathâ   (Q-EZ NP)
   all-EZ -the companies 'all/the-totality-of the companies'

(8a-c) illustrate an interesting alternation involving Ezafe and relative clauses (RCs). Farsi RCs are all post nominal. With finite RCs (FRCs) no Ezafe appears; instead they are introduced by the relative marker ke (8a,b). By contrast, reduced, nonfinite RCs (RRCs) are introduced by Ezafe and no ke appears (8c,d):

(8) Full 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-é[az suis  bar gašte]   (N-EZ RRC)
this young-EZ from SW back turn

'this young man back from Switzerland'

d. aks-é [čáp šode dar ruznâme] (N-EZ RRC)

photo-EZ publication become in newspaper

'the photo published in the newspaper'

Finally, (9a-e) show that with certain Farsi prepositional phrases (to which we return below), Ezafe occurs between the prepositional element and its object. (9f) shows, furthermore, that when such a prepositional phrase occurs as a noun modifier, Ezafe may also occurs between it and the head noun:

(9) Complements of (Certain) Ps

a. beyn-é men-o to (P-EZ NP)

between-EZ you and me 'between you and me'

b. vásæt-é otaq (P-EZ NP)

in-the-middle-EZ room 'in the middle of the room'

c. dor-é estæxr (P-EZ NP)

around-EZ pool 'around the pool'

d. bæqæl-é dær (P-EZ NP)

by-EZ door 'by the door'

e. kenar-é dærya (P-EZ NP)

next-EZ sea 'on the beach'

f. 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 the Caspian languages Gilaki and Mazandarani, and in neighboring languages like Taleshi, nominals are near mirror inverses of Farsi/Sorani. Attributive nouns, attributive adjectives, possessives, and a whole range of noun complements occur
prenominally, and link to N via an invariant "reverse Ezafe" particle (REZ), which again cliticizes to the preceding element (10):

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

These patterns are illustrated in (11)-(14). (11a-e) are from Gilaki (B. Hessam p. c.). (12)-(14) are from the Sari dialect of Mazandarani (Yoshie 1998).

**Gilaki**

(11) Modifiers & complements of Ns

a. bay-ə gul-an
   garden-REZ flower-PL 'garden flowers'

b. John-é xowne
   John-REZ house 'John's house'

c. āb-e xurdan
   water-REZ eat 'drinking of water'

d. surx-ə gul
   red-REZ flower 'red flower'

e. xayli kushtay(-e) utâq
   very small(-REZ) room 'very small room'

f. xujir-e sabz-e kitaab
   good-REZ green-REZ book 'good green book'

g. daryaa(-e) kinaar-e xowne
   ([NP-REZ P] -REZ N)

sea(-REZ) next-REZ house 'house beside the sea'

(12) Complements of A

a. Hāsan-ə aashiq
   Hasan-REZ in love 'in love with Hasan'
b. zak-e negarown (NP-REZ A)
   child-REZ worried ‘worried about the child’
c. Gudut-e muntazir (NP-REZ A)
   Godot-REZ waiting ‘waiting for Godot’

(13) 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’

d. daryaa( -ə) kinaar-ə xowne
   sea( -REZ ) next-REZ house
   ‘house beside the sea’

Mazandarani (Sari)

(14) Modifiers & complements of Ns

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 xäxer-e hëmsëye
   (NP-REZ NP-REZ N)
   Farhad-REZ sister-REZ neighbor
   ‘neighbor of Farhad’s sister’

d. me berār-e rafeq-e ketāb (NP-REZ NP-REZ N)
   1sg brother-REZ friend-REZ book
   ‘book of my brother’s friend’

e. gat-e sere (AP-REZ N)
big-REZ house 'big house'
f. belend-e ku (AP-REZ N)
high-REZ mountain 'tall mountain'
g. ku čik-e 'otāq (AP-REZ N)
small-REZ room 'small room'
h. lāqer-e sefid-ru-e zenā (AP-REZ AP-REZ N)
thin-REZ pale-face-REZ woman
 'thin, pale-faced woman'

(15) Complements of Ps
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'

One interesting departure from mirror symmetry vis-à-vis the Ezafe languages occurs with relative clauses. Caspian finite relatives (FRCs) do not show the prenominal position of other modifiers, but rather occur post nominally, just like those in Farsi; likewise they occur without an Ezafe-type element (16a, a'). By contrast, Caspian reduced, nonfinite relatives (RRCs) are prenominal, do show REZ, and hence exhibit mirror symmetry (16b, b'). The Gilaki examples in (17) illustrate this difference.

(16) CASPIAN FARSI
a. N FRC a'. N FRC
b. RRC -REZ N b'. N -EZ RRC

(17) a. u mard-e [ki Hasan (diru) bide ]
(N FRC)
that man-REL that Hasan (yesterday)see PST 3sg
‘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’

1.3 “Non-Ezafe” Languages: Pashto

Finally, we may consider languages like Pashto, whose nominals are not considered to show Ezafe and which somewhat resemble those found in Germanic\(\). Thus numerals, demonstratives, attributive As, and reduced relative clauses all occur prenominally with no linking element (18a-d). Finite relatives clauses are post nominal, again with no linking element (19):

(18) a. pinda\(\)e p\(\)agh\(\)e
   five girls ‘five girls’
 b. agha mo\(\)tar
   that car ‘that car’
 c. w\(\)agay alok
   hungry boy ‘hungry boy’
 d. [de amrika ne birta raveli] seray
   from America return came man
   ‘man back from America’

(19) agha njal\(\)ay [tse k\(\)am\(\)i\(\)sakh\(\)li]
   that girl who dress bought
   ‘that girl who bought a dress’

Agreement patterns are also roughly Germanic in appearance. Pashto distinguishes 2 numbers (S/P), 2 genders (M/F), and 2 cases (Direct/Oblique). Attributive adjectives agree in these fea-
tures according to membership in one of 4 declension classes (tag - 'thirsty' below is class 2):

(20) a. [t̪aːɡəl ələk] wəba ghwəɾi MDS
    thirsty boy  water want3S

    'the thirsty boy wants water'

b. [t̪aːɡi ələkən] wəba ghwəɾi MDP
    thirsty boys  water want3P

    'the thirsty boys want water'

c. [də t̪aːɡi ələk kəhwələ] wəcha wa MOS
    of thirsty boy mouth  dry was

    'the thirsty boy's mouth was dry'

d. [də t̪aːɡi ələkən kəhwələ] wəcha wa MOP
    of thirsty boys mouths  dry were

    'the thirsty boys' mouths were dry'

e. [t̪əɡə pəghələ] wəba ghwəɾi FDS
    thirsty girl  water want3S

    'the thirsty girl wants water'

f. [t̪əɡə pəghələ wəba ghwəɾi FDP
    thirsty girls  water want3P

    'the thirsty girls want water'

g. [də t̪əɡə pəghələ kəhwələ] wəcha wa FOS
    of thirsty girl mouth  dry was

    'the thirsty girl's mouth was dry'

h. [də t̪əɡə pəghələ kəhwələ] wəcha wa FOP
    of thirsty girls mouths  dry were

    'the thirsty girls' mouths were dry'

2 The Nature of Ezafe & Reverse Zafe

Having briefly surveyed some Iranian languages, let's now consid-
er two natural questions they raise, namely:

- What are Ezafe and Reverse Ezafe particles, and
- What governs their occurrence in Farsi/Sorani and Gilaki/Mazandarani,

and their (at least partial) absence in Pashto?

As a way of thinking about these questions, reconsider English genitives. These come in two varieties: prepositional genitives in *of*, and so-called "Saxon" genitives in *s*. The former are strictly post nominal (21a) whereas the latter are (almost) strictly prenominal (21b)°.

(21) a. \[^N_{neighbor}\] of John
    b. John 's \[^N_{neighbor}\]

The prepositional genitive construction occurs with complements to nouns and adjectives (22). It is also found in certain noun-modifying contexts when the modifier itself is nominal (*yesterday, stone, blue, beauty, your choosing*) (23a-e). It is even found in certain PP constructions, specifically those built upon a "nominal core" (24a-c).

(22) a. \[^N_{drinking}\] of water (cf. drink water)
    b. \[^N_{seller}\] of books (cf. sell books)
    c. \[^A_{envious}\] of Max (cf. envy Max)
    d. \[^A_{desirous}\] of money (cf. desire money)

(23) a. \[^N_{letter}\] of yesterday
    b. \[^N_{heart}\] of stone (cf. stone heart)
    c. \[^N_{field}\] of blue (cf. blue field)
    d. \[^N_{thing}\] of beauty (cf. beautiful thing)
    e. \[^N_{book}\] of your choosing (cf. book that you choose)

(24) a. \[^P_{because}\] of those problems (cf. \[^P_{by N}\] cause]
    b. \[^P_{in spite}\] of that attitude (cf. \[^P_{in N}\] spite]
c. \([_p p \text{ inside (of) that box}]\) (cf. \([_p \text{ in}[_n \text{ side}]]\))

Under widely held views, \textit{of} occurs in such contexts for case reasons (Chomsky 1981; Stowell 1981). Unlike verbs or genuine prepositions, nominal (i.e., \([_ + N]\)) elements cannot check case on a nominal complement (or modifier) that requires this inflection. \textit{Of} is thus inserted for this purpose; it is there to check case and satisfy case requirements.

2.1 \textbf{Ezafe Languages: Super Of}

Samiian (1983, 1994) observes that Farsi Ezafe has much the same distribution as English \textit{of}. Specifically, she notes that Ezafe, like \textit{of}, fundamentally occurs between nominal elements:

\textbf{Samiian’s Empirical Generalization (1983/1994; see also Karmi and Brame 1986)}:

Ezafe occurs between a \([_ + N]\) head and its \([_ + N]\) complements/modifiers.

The correctness of this generalization is directly supported by the Farsi data discussed earlier. Given that nouns and adjectives are both \([_ + N]\) categories, the examples in (5)-(6) exhibit the patterns in (25), where EZ occurs between \([_ + N]\) elements:

\begin{align*}
(25) & \text{a. N -EZ \quad NP/AP} \\
& \text{b. A -EZ \quad NP}
\end{align*}

Likewise, consider the quantificational cases in (7). As the glosses indicate, the Q \textit{tamām} ‘all’ is readily understood as a nominal quantity expression equivalent to English ‘the-totality-of’. Hence this case too may be brought under Samiian’s Generalization:

\begin{align*}
(26) & \text{Partitive-Q -EZ \quad NP}
\end{align*}

Consider next the case of relative clauses. Chomsky (1981), Stowell (1981) and much related work, has argued that finite
clauses, including finite relative clauses (FRCs), are non-nominal, and hence non-case bearing categories. Under Samiian’s Generalization, we therefore do not expect them to trigger Ezafe (27a). By contrast, typological studies consistently indicate that reduced relative clauses are fundamentally nominal in character\(^\circ\). Under Samiian’s Generalization we thus expect Ezafe to co-occur with them (27b). As the data in (8) show, this pattern is exactly what we observe: Ezafe occurs only with nonfinite RCs.

(27) a. N \* -EZ FRC
   b. N -EZ RRC

The reasoning above is perfectly general, applying not only to clausal modifiers (relative clauses) but to clausal complements as well. (28a, b) exhibit finite complements to a noun (edde’aa ‘claim’) and an adjective (xošāl ‘happy’). Here again no Ezafe appears:

(28) a. in edde’aa [ke Hasan otaaq-raa tark kard] (finite CP)
   this claim that Hasan room-RAA leave did
   ‘the claim that Hasan left the room’
   b. xošāl [ke šāh kešvar rā tark kard] (finite CP)
   happy that Shah country left.PAS
   ‘happy that the Shah has left the country’

Finally, recall the prepositional data in (9). As Samiian notes, these cases at first appear problematic for her generalization. P is normally analyzed as a [-N] category, hence the occurrence of Ezafe in a pattern like (29) is unexpected on the view that EZ occurs between [+ N] elements.

(29) P -EZ NP
As Samiian observes, however, the situation is more complex than first meets the eye.

Farsi prepositions differ with respect to Ezafe; some forbid it between the P head and its complement (Class 1, 30), whereas others either permit or require it (Class 2, 31-32):

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

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

(32) a. beyn  -é  mæn-o to  ‘between you and me’
      between  -EZ you and me
   b. væsæt  -é  otaq  ‘in the middle of the room’
      in-the-middle  -EZ room
   c. dor  -é  estæxr  ‘around the pool’
      around  -EZ pool
Furthermore, the two classes have quite different properties. Ps from Class 1 seems to select their object and are ill-formed without it (33a); whereas objects of Class 2 Ps are deletable in certain cases (33b). Furthermore, Class 2 forms sometimes occur in indisputably nominal positions (albeit with a change of meaning) (33c,d). This is not possible with Class 1 Ps. Finally, Class 1 PPs functioning as nominal modifiers never link to the N with EZ (33e), whereas Class 2 PPs may do so (33f) (cf. also (9f) above):

(33) a. ræft  ba *(Hæsæn)  
      went  with Hasan  'went with Hasan'

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

c. in  ru  
      this  top  'up here'

d. un  zir-a  
      that  under-PL  'way down there'

e.  aks  -é  dær  ganje  
      picture-EZ  in  closet  'picture in the closet'

f.  aks-é  ru-yé  miz  
      picture-EZ  on-EZ  table  'picture on the table'

Samiian argues that Farsi prepositions are not a homogeneous category. She proposes that Class 2 Ps are in fact fundamentally nominal in nature, a view already suggested by the paraphrases in (31) and (32) (jelo 'in-front', væsæt 'in-the-middle'). These items are thus comparable to the English complex PPs like in-spite or because, discussed earlier in (24), with the optionality of Ezafé
in (31a-d) analogous to the optionality of of in (24c) (cf. also outside (of) the house). By contrast, Class 1 Ps are indeed true functional elements, [-N] forms comparable to English true prepositions. Hence Ezafe does not occur with them.

Given this distribution, Ezafe appears to constitute something like a generalized form of English of -"Super-Of". Samiian proposes a parallel account of its function, i.e., that EZ is present for case reasons;

Samiian's Hypothesis: Ezafe is a clitic, preposition-like element that checks case on its complement.

The schematic picture is thus as in (34), where EZ forms a constituent with, and checks case on, its following complement or modifier, but where, because of its clitic-like properties, EZ attaches to the immediately preceding element.

\[
\begin{align*}
\text{(34)} & \quad \Downarrow \quad \text{cliticizes} \\
\text{a. N} & \quad [\text{EzP-EZ NP/AP/PP/nonfinite CP}] \quad \text{checks case} \\
\text{b. A} & \quad [\text{EzP-EZ NP}] \\
\text{c. P} & \quad [\text{EzP-EZ NP}]
\end{align*}
\]

This analysis not only clarifies the nature of Ezafe and its cross-linguistic affinities, it also provides insight into the special nature of Ezafe languages. We noted above that English of occurs before complements and modifiers when the latter are categorial nouns (recall (22) and (23), repeated below):

\[
\begin{align*}
\text{(22) a. [N drinking] of water} & \quad \text{(cf. drink water)} \\
\text{b. [N seller] of books} & \quad \text{(cf. sell books)} \\
\text{c. [A envious] of Max} & \quad \text{(cf. envy Max)}
\end{align*}
\]
d. \([A \text{ desirous}] \text{ of money}\)  \(= \text{cf. desire money}\)

\[(23) \ a. [N \text{ letter}] \text{ of yesterday}\]

b. \([N \text{ heart}] \text{ of stone}\)  \(= \text{cf. stone heart}\)

c. \([N \text{ field}] \text{ of blue}\)  \(= \text{cf. blue field}\)

d. \([N \text{ thing}] \text{ of beauty}\)  \(= \text{cf. beautiful thing}\)

e. \([N \text{ book}] \text{ of your choosing}\)  \(= \text{cf. book that you choose}\)

Observe, however, that \(of\) does not simply occur before \([+N]\) elements like adjectives \((35a, b)\), nor can it occur before those English Ps we identified as having a nominal core \((35c)\).

\[(35) \ a. * [N \text{ man}] \text{ of tall} \ (\text{cf. tall man, man of (great) height})\]

b. * \([N \text{ field}] \text{ of nearby}\)  \(= \text{cf. nearby field}\)

c. \([N \text{ temperature}] (\*of) \text{ inside}\)
\(= \text{cf. temperature inside, temperature of the interior}\)

The conclusion drawn by Karimi and Brame (1986) is that Farsi (and presumably Ezafe languages generally) are "super-nominal" insofar as what correspond in English to adjectives and prepositions, as well as reduced, nonfinite RCs, are in fact all categorically nouns, and hence require case-checking. On Karimi and Brame's view, this is what triggers Ezafe whenever such elements co-occur with items that are not themselves case-checkers, for example, when they are the complements or modifiers of nouns, adjectives or nominal prepositions. The Ezafe phenomenon thus results from generalized categorial "nouniness" in languages in question, and correlates with the appearance of a generalized case-checker.

2.2 Reverse Ezafe Languages: Super's

Let us now turn to Reverse Ezafe languages. We noted earlier that English genitives come in two varieties: a post nominal
prepositional genitive in of (36a), and a prenominal Saxon genitive in's (36b):

(36) a. neighbor of John
    b. John's neighbor
The English's -genitive has a decidedly more limited distribution than the of -genitive. Many noun complement constructions have no's -genitive counterpart (37a, b) and adjectival complement constructions lack's -genitives altogether (37c, d). In these cases prenominal position is available only through noun compounding (38a-d):

(37) a. *? water's [\textunderscore n drinking] (cf. drinking of water)
    b. * books's [\textunderscore n seller] (cf. seller of books)
    c. * Max's [\textunderscore a envious] (cf. envious of Max)
    d. * money's [\textunderscore a desirous] (cf. desirous of money)

(38) a. [\textunderscore n water drinking]
    b. [\textunderscore n book seller]
    c. [\textunderscore n Max envy]
    d. [\textunderscore n/a money hunger/hungry]

The facts are similar for constructions involving modification (39). While some of -genitives have's -genitive counterparts (39a), others must resort to noun compounding (39b) or change to an adjectival variant (39c); still others simply have no prenominal counterpart at all (39d):

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

Imagine, however, an Ezafe-like language that was "super-nomi-
nal" in the sense discussed above – i.e., what English realizes as As, Ps, and reduced/nonfinite relative clauses are realized categorially as nouns – but which generalized the's-genitive strategy instead of the of-genitive strategy. Such a language would not be "Super of" but rather "Super's". This is what I would like to propose as an analysis of Reverse Ezafe:

Reverse Ezafe languages are “Super’s” languages. -REZ is an extended version of a prenominal genitive marker.

This proposal raises an immediate follow-up question however. The analysis of English of as a preposition is widely agreed upon. But the analysis of English’s is far more controversial. What precisely is’s (and therefore REZ)? Viewing it as parallel to of /EZ in function suggests a case-based analysis. But this still leaves open many possibilities. Is it, for example, a postposition, the mirror inverse of of /EZ under our analysis (40a)? Is it the head of DP, a case-checking element parallel to T (40b)? Is it simply some form of morphological case marking, parallel to the nominative marking realized on the subject of a finite clause (40c)?

(40) a. \([_\text{PP} \text{John} \, [\cdot'\text{s}]] \text{picture}\\ (\text{cf. picture } [_\text{PP} [\cdot'\text{of }] \text{John}])\\ b. \,[_\text{DP} \text{John} \, [\cdot'\text{s}]] \text{book}\\ (\text{cf. } [_\text{TP} \text{John} \, [\cdot T \text{will } ]] \text{leave}])\\ c. \,[_\text{DP} \text{John's} \, [\cdot D \text{e }] \text{book}]\\ (\text{cf. } [_\text{TP} \text{He(NOM)} \, [\cdot T \text{will } ]] \text{leave}])

I want to propose an analysis quite different from any of these, based on some simple and familiar reflections about case.

2.2.1 Case Concord

Traditional grammars standardly describe nouns as being in-
flected for case and φ-features, and attributive elements (including articles and adjectives) as agreeing with them, or exhibiting "concord". Thus in the Icelandic nominal in (41) (from Kester 1996) kennigar ‘theories’ is inflected as a feminine plural nominative, and the determiner and adjectives agree with it:

(41) allar þessar þrjár nyju

all. FEM. PL. NOM these. FEM. PL. NOM three. FEM. PL. NOM new. FEM. PL. NOM

kennigar

theories. FEM. PL. NOM

‘all these three new theories’

Describing things this way implies an important distinction in the inflectional morphology we see in examples like (41). In effect, inflection is analyzed as "real" on N, but derivative on the other elements, present merely as concord (42).

(42)

This traditional view accords rather well with modern syntactic analyses that see case as reflecting a relation between a higher "probe" and a lower "goal", wherein the former scans its c-command domain, probing for the inflectional values on its goal (N), and agreeing with various elements on the path between them. With nominative case, for instance, the probe would be a higher T, which scans its c-command domain for a nominative marked noun, agreeing with Ds and APs on the way down, until its search
finally terminates with \(N\) (43a). A similar picture holds for accusative case, with the probe being a little \(v\) (43b):

\[
\text{(43)} \quad \begin{align*}
\text{a.} & \quad \text{\begin{tikzpicture}[baseline=(current bounding box.center)]
        \node (T) at (0,0) {\text{\small{T}}} ;
        \node (D) at (0,-1) {\text{\small{D}}} ;
        \node (AP) at (0,-2) {\text{\small{AP}}} ;
        \node (N) at (0,-3) {\text{\small{N}}} ;
        \node (goal) at (0,-4) {\text{\small{goal}}} ;
        \node (nom) at (0,-4) {\text{\small{nom}}} ;
        \draw[->] (T) -- (D) ;
        \draw[->] (D) -- (AP) ;
        \draw[->] (AP) -- (N) ;
        \draw[->, dashed] (N) -- (goal) ;
        \draw[->, dashed] (N) -- (nom) ;
        \node at (0,-1.5) {\small{\text{\textit{probe}}} \text{ agree}} ;
        \node at (0,-2.5) {\small{\text{\textit{goal}}} \text{ share}} ;
        \end{tikzpicture}} \\
\text{b.} & \quad \text{\begin{tikzpicture}[baseline=(current bounding box.center)]
        \node (T) at (0,0) {\text{\small{v}}} ;
        \node (D) at (0,-1) {\text{\small{D}}} ;
        \node (AP) at (0,-2) {\text{\small{AP}}} ;
        \node (N) at (0,-3) {\text{\small{N}}} ;
        \node (goal) at (0,-4) {\text{\small{goal}}} ;
        \draw[->] (T) -- (D) ;
        \draw[->] (D) -- (AP) ;
        \draw[->] (AP) -- (N) ;
        \draw[->, dashed] (N) -- (goal) ;
        \node at (0,-1.5) {\small{\text{\textit{probe}}} \text{ agree}} ;
        \node at (0,-2.5) {\small{\text{\textit{goal}}} \text{ share}} ;
        \end{tikzpicture}}
\end{align*}
\]

Notice that on this picture, a potentially agreeing element \(\alpha\) (\(D\), \(AP\), etc.) must canonically occur lower than the probe (\(T\) or \(v\)) and higher the goal (\(N\)) if it is in fact to agree (44a).\(^\circ\) If \(\alpha\) occurs above \(T/v\), it will lie outside \(T/v\)'s scanning domain (44b); and if it occurs below \(N\), then \(T/v\)'s scan will terminate before \(\alpha\) is reached, depriving the latter of agreement (44c):

\[
\text{(44)} \quad \begin{align*}
\text{a.} & \quad [T/v \ldots [\alpha \ldots [\ldots N]]] \quad \checkmark \\
\text{b.} & \quad [\alpha \ldots [T/v \ldots N] \ldots \alpha] \quad \times \quad (\alpha \text{ lies outside } T/v\text{'}s \text{ domain}) \\
\text{c.} & \quad [T/v \ldots N \ldots [\ldots \alpha]] \quad \times \quad (\text{scan terminates before reaching } \alpha)
\end{align*}
\]

In brief, then, agreeing items must occur between the probe and goal\(^\circ\).

2.2.2 Concordializers

It is an interesting fact that languages have devices for converting items that are valued for case to ones that merely agree for case. For example, many Slavonic languages (described by Corbett 1987) contain suffixes for creating so-called "possessive adjectives" from nouns. Thus, in addition to familiar post nominal genitives (45a), Upper Sorbian (spoken in Lusatia, eastern Germany) exhibits possessive adjectives, formed by suffixing \(-in/-yn\) to feminine nouns and \(-ow\) to masculine nouns (45b).

\[
\text{(45)} \quad \begin{align*}
\text{a.} & \quad \text{\textit{kniha Jan-}a} \quad \text{Upper Sorbian (Corbett 1987)} \\
& \quad \text{book Jan-GENSG}
\end{align*}
\]
'a/the book of Jan's''

b. Jan-ow -a knih-a

Jan-POSS-NOMSGFEM book-NOMSGFEM

'Jan's book'

As discussed by Corbett (1987), the possessive Jánoua in (45b) is fully adjectival in behavior, exhibiting the same agreement forms as attributive adjectives (here agreeing with the nominative, feminine singular head knih-a 'book') and in preceding the head.

Suppose now that one had a "super-nominal" language like those found (by hypothesis) in Iran. Given the above discussion, the strategies for case marking nominal elements would include at least the following:

- deploy a generalized checker; allowing case by checking/assignment.
- deploy a generalized "concordializer"; allowing case by agreement.

Constructions of the first sort would be complement-like; constructions of the second sort would be fundamentally attributive in nature.

I have already proposed (following Samiian 1983, 1994) that the first strategy corresponds to what is found in Ezafe languages. As discussed, -EZ appears to be a "super of", a generalized case-checker heading an EzP that follows N (46a). I now wish to suggest that second strategy corresponds to what is happening in Reverse Ezafe languages, that -REZ is a generalized concordializer/adjectivalizer - a "Super's" - allowing complements and modifiers of N that require case to occur in attributive position and obtain case by agreement (46b).
2.3 Is One Pattern More Basic?

If the above suggestion is correct, Ezafe and Reverse Ezafe languages represent, in a sense, “pure” versions of what we find “mixed” in English. Whereas English contains both of- and’s -genitives (47a, b), the former contain only (the equivalent of) the first (47c), and the latter contains only (the equivalent of) the second (47d).

(47) 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

This result is interesting because in the history of English transformational studies, the two constructions have not been viewed symmetrically. In particular, the prenominal genitive has frequently been analyzed as deriving from an underlying post nominal structure by movement (48a, b)\(^\circ\):

(48) a. _____ house [of John’s]
    b. John’s house [John’s]

Does the same hold true of Reverse Ezafe languages? Is the prenominal, attributive position also a derived one (49a, b)?

(49) a. _____ xowne [John-é ]
    house John-REZ
    b. John-é xowne [John-é ]
2.3.1 Patterning of Clausal Modifiers and Complements

In fact we have already seen hints that this might be true. Specifically, we’ve noted that although Farsi is "positionally consistent" in its treatment of clausal modifiers and complements of the noun, Gilaki and Mazandarani are not. In Farsi, clausal modifiers and complements of N are uniformly post nominal. Non-finite, reduced relative clauses (RRCs) link via Ezafe (50), whereas finite relatives (FRCs) don’t (51).

(50) a. in javán -é [az suis bar gašte]  
this young-EZ from SW back turn  
‘this young man back from Switzerland’

b. N -EZ RRC

(51) a. marde [ke Nanazo mibine]  
the man REL Nanaz sees  
‘the man that sees Nanaz’

b. N FRC

Gilaki and Mazandarani follow this pattern insofar as non-finite relatives link via Reverse Ezafe (52) and finite relatives don’t (53). However, in addition, only non-finite clauses appear in prenominal, attributive position. Finite clauses appear in post nominal position, just as in Farsi. Hence, as we noted, the languages are not simple mirror images of each other.

(52) a. 'i [suyis-é ji vagarsé ] juvon  
this [SW-REZ from back-turn REZ?] young  
‘this young (person) returned from Switzerland’

b. RRC-REZ N

(53) a. u marde [ki Hasan (diru) bide ]  
that man -REL Hasan (yesterday) seePST3sg
‘the man that Hasan saw (yesterday)’

b. N FRC

It is attractive to see this asymmetry in case theoretic terms. Having a case assigner (of) and a concordializer are not equivalent options. If post nominal position is basic, the first will allow a case-dependent element (XP) to remain in position (54a). But simply concordializing a case-dependent XP by addition of ’s/REZ will not have this effect. As we noted (recall 44c), post nominal, N-complement position is not one where agreement will generally be possible. Probes will terminate their search before XP is encountered. Hence in addition to a concordializer, movement to a potential agreement position above N is required (54c).

\[
\begin{array}{c}
(54) \quad a. \quad N \ [of/EZ \ XP] \\
b. \quad N \ [XP,’s/-REZ] \times \ (\text{agreement is impossible here}) \\
c. \quad XP,’s/REZ \ N \ [XP,’s/-REZ] \checkmark \\
\end{array}
\]

However for elements that are not case-dependent, such as finite clauses, neither an assigner nor a concordializer will be required. These will be able to occupy their base position unassisted by a case-enabling device (51b)/(53b). Since finite clauses occur in the same position – post nominal position – in Farsi and Gilaki/Mazandarani, it is natural to take this as the base position for both. The asymmetry between Ezafe and Reverse Ezafe languages thus falls out naturally in these terms.

2.3.2 Pashto Again

Evidence for movement also arises in Pashto. We earlier described Pashto as a “non-Ezafe language” in virtue of the fact that adjectives and non-finite clausal modifiers occur prenominally without an Ezafe particle and agree directly with their noun (re-
call 18-20 above). Nonetheless, Pashto does exhibit an Ezafe-like construction in one corner of its grammar, viz., in possessives, although with some interesting complexities. As in Reverse-Ezafe languages, Pashto possessives are prenominal, and marked by a particle \((de)\). As in Ezafe-languages, however, this particle precedes the possessor rather than following it (55a-d):

\[(55)\]
a. \([de\ asad]\ [na\ way]\ mo\ ta\)
   of Asad new car
   'Asad's new car'/a new car of Asad's'
b. \([de\ mez]\ and\ a\ ze\)
   of table length
   'table's length'/length of the table'
c. \([devwa]\ y\ washi\)
   of cow meat
   'beef'/cow's meat'/meat of the cow'
d. \([de\ Yasir-jan]\ li\ dal\)
   of Yaser seeing/visiting
   'visiting (of) Yaser'

This behavior extends to PP-like constructions. Traditional grammars describe Pashto locative prepositions like \(landey\) 'under' as governing genitive case on their objects (Tegey and Robson 1996); the latter are realized prenominally with \(de\), making these constructions formally identical to possessives (56):

\[(56)\]
\([de\ mez]\ landey\)
   of table under
   'under the table'/the table's under(neath)'

Notice now that Pashto possessives resemble fronted versions of Farsi, i.e., constructions where what we have labeled "EzP" has raised around N (57):


(57)  
  a. \[ \{EzP \text{ EZ NP} \} N \]
  b. \[ \{EzP \text{ EZ NP} \} N \{EzP \text{ EZ NP} \} \]
  c. moṭar \[ \text{[de Asad]} \]
  d. \[ \text{[de Asad]} \text{ moṭar [de Asad]} \]

Interestingly, this idea seems to have more than intuition in its favor. Pashto PPs whose objects contain a possessor do not realize the latter where one might expect from a semantic point of view. Rather than occurring at the left edge of the nominal (58a), the possessor instead occurs at the left edge of PP (58b).

(58)  
  a. \[ \{pp \text{ P } [\text{ de NP N }] (P) \} \times \]
  b. de NP \[ \{pp \text{ P } [N ] (P) \} \checkmark ! \]

Thus Pashto renders English *with Asad’s knife* via the equivalent of *Asad’s with knife* (59a). This behavior extends to the possessor-like, locative constructions mentioned above. The equivalent of English *in the books’ midst/middle* is something like *books’ in midst/middle* (59c):

(59)  
  a. de asad \[ \{pp \text{ pe } \text{ chāqū} \}] \text{ of Asad with knife ‘with Asad’s knife’}
  b. de asad \[ \{pp \text{ lə } \text{ nəwi moṭar } \text{ na} \}] \text{ of Asad from new car from ‘from Asad’s new car’}
  c. \[ \text{[de kitābunə] } \{pp \text{ tar } \text{ maynə} \}] \text{ of books at between ‘between/in-the-midst-of the books’}

From the viewpoint of compositional semantics, it is difficult to see how this situation could arise except by fronting of the possessor out of the nominal to the edge of PP (60a).
(60)  
\[
\begin{align*}
\text{a. } & [\text{de NP}] [\text{pp} \ P \ [\ldots \text{de NP} \ldots ]] \\
\text{b. } & [\text{NP/DP}] [\text{de NP}] \ N \ [\text{de NP}] \\
\text{c. } & [\text{de NP}] [\text{pp} \ P \ [\ N \ [\text{de NP}]]]
\end{align*}
\]

Given that some prenominal possessors in Pashto clearly obtain their position by movement, it's not implausible to suppose that in fact they all do, moving from a post nominal Ezafe-type position to the left edge of NP/DP (60b) or PP (60c), whichever is maximal.

3 Mandarin de as -REZ

Having examined Ezafe and Reverse Ezafe languages in some detail, my proposal regarding Mandarin and the nature of de will perhaps come as no surprise. I suggest that Mandarin is a Reverse Ezafe language and that de is a REZ-particle: a generalized genitive morpheme in the sense described above whose distribution is fundamentally a matter of case.

3.1 De and Case

The idea that de is a case-related phenomenon, with licensing analogous to the English genitive morpheme's, is not an original one. Li (1985) argues that the basic distributional generalization about de is that it occurs between case-bearing categories, essentially the same generalization offered by Samiian (1983) for Farsi Ezafe. This claim is straightforward for examples like (61a-c) where what occurs to the right of de is plainly a noun, and where what occurs to its left is either a noun (61a, b) or an adjective (61c). Both are [ + N] categories.
(61) a. Zhangsan 德 xiezi
    Zhangsan shoe
    ‘Zhangsan’s shoe(s)’

b. meiguo 德 yinhang
    America bank
    ‘American bank(s)’

c. hong 德 huaping
    red vase
    ‘red vase(s)’

However the claim requires further argument with examples like (62a,b) and (63a,b), which appear to show de co-occurring with PPs, and with examples like (64), where de co-occurs with a relative clause and a noun complement construction.

(62) a. [zhuozi -shang] 德 shu
    table -on book
    ‘book on the table’

b. [jia -li] 德 shu
    house -in/at book
    ‘book in/at the house’

(63) a. [zai Beijing] 德 ren
    at Beijing people
    ‘people in Beijing’

b. [gei ta ] 德 shu
to/give him book
    ‘the book (to give) to him’

(64) a. [wo mai ] 德 shu
    I buy book
    ‘the book(s) which I bought’

b. [Akiu neng huo-zhe hui-lai] 德 xinnian
Akiu can live-Dur back-come belief

'the belief that Akiu can come back alive'

Regarding the examples in (62), Li (1985) independently develops a line of reasoning reminiscent of that offered by Samiian for Persian; she suggests that Chinese contains both 'true PPs' and also 'nominals in disguise', and that only the latter can co-occur with de. Thus Li argues that shang and li in (62) are not in fact adpositions, but rather location nouns. Shang in (62a) is thus not accurately glossed as 'on', but rather should be rendered as 'surface', so that zhuozi-shang becomes 'table-surface'. Likewise, li in (62b) is not accurately glossed as 'in/at', but rather should be rendered as 'interior', so that jia-li becomes 'house-interior'. As evidence for the claim that shang, li and related elements (xia 'under' /'bottom', wai 'outside' /'exterior') are nouns, Li observes that the latter occur freely with place nouns 'mian/bian/tou' side, and can in fact head subjects (65).

(65) 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'

In contrast to these fundamentally nominal elements, Li suggests that Chinese also contains true functional prepositions like cong 'from' and wei 'for'. These are semantically non-locative and, importantly, these do not form phrases that can combine with de
On Li’s analysis, then, Mandarin patterns analogously to what we observed earlier in Persian: Chinese “true prepositions” like cong and wei correspond to Samiian’s Class 1 Farsi forms, and Chinese items like shang and li correspond to Class 2 forms; they are basically locative nominals and place nouns. The former don’t occur with de /Ezafe, whereas the latter do.

With respect to zai Beijing ‘in Beijing’ and gei ta ‘(give) to him’ in (63), the situation is somewhat different. Zai and gei cannot be argued to be place nouns, and indeed occur prenominally, in a different position than shang, li, xia, wai and related items. Nonetheless Li (1985) argues that appearances are once again deceiving: that rather than being PPs, the bracketed phases in (63) are in fact concealed relative clauses. In support of this claim she notes the simple fact that zai can occur as the main predicate in an independent clause (67a), and gei occurs as a main verb meaning ‘give’ (67b):

(67) a. Ta zai Beijing
    (s)he at Beijing
    ‘(S)he is in Beijing’

b. Wo gei ta shu
I give him book
‘I gave him a book’
Given this fact, there can be no barrier in principle to analyzing the corresponding phrases in (63) as CPs – i.e., as relative clauses – rather than as PPs.

Analyzing (63a, b) as relative clauses raises directly the question of the status of CP in Chinese constructions like (64a, b). Interestingly, both Li (1985) and Tsai (1995) argue forcefully that Chinese clauses have the same basic distribution as nominals, occurring after V and P, in case positions. As one piece of evidence, Tsai (1995) observes that in immediate post-verbal position interrogative clausal complements resist an accompanying preposition (68a), just as nominal objects do (68b). By contrast, in pre-verbal position, clausal complements require an accompanying preposition (69a), just as nominals do (69b):

(68) a. wo hen guanxin (*dui) \[_{\text{CP}}\text{Akiu weishenme bu lai }\].
I very care about Akiu why not come 'I do care why Akiu will not come.'

b. wo hen guanxin (*dui) \[_{\text{NPzhe-jian shi de qiyin}}\].
I very care about this-C1 matter of cause 'I do care about the cause of this matter.'

(69) a. wo [* (dui) \[_{\text{CP}}\text{Akiu weishenme bu lai }}\]] hen guanxin.
I about Akiu why not come very care 'I do care why Akiu will not come.'

b. wo [* (dui) \[_{\text{NPzhe-jian shi de qiyin }}\]] hen guanxin.
I about this-C1 matter of cause very care 'I do care about the cause of this matter.'

The same generalization holds with declarative clausal complements (70) and (71):

(70) a. wo hen zaiyi (*dui) \[_{\text{CP}}\text{Akiu bu lai }}\].
I very mind about Akiu not come
'I do mind Akiu not coming.'

b. wo hen zaiyi ('dui) [NP zhe-jian shi ].
I very mind about this-C1 matter
'I do mind about this matter.'

(71) a. wo ['(dui) [CP Akiu bu lai ]] hen zaiyi.
I about Akiu not come very mind
'I do mind Akiu not coming.'

b. wo ['(dui) [NP zhe-jian shi ] ] hen zaiyi.
I about this-C1 matter very mind
'I do mind about this matter.'

The distribution of nominals here would standardly be given a
case-theoretic account; immediate post-verbal position is a case
position, hence nominals occurring there do not require, and in-
deed resist, an independent case-assigner like dui. By contrast,
pre-verbal position is not a case position; hence nominals occur-
ing there allow, and indeed require, an independent case-assig-
nier. Since the distribution of nominals is determined by case, and
the distribution of clauses is identical, this argues that the distri-
bution of clauses is determined by case as well.

As further evidence Tsai (1995) observes that (true) preposi-
tions like cong 'from' and dao 'to' take CP complements in Chi-
nese (72), and that CPs occur as the object of the case-assigner ba
in the dang-zuo 'regard-as' construction (73):

(72) a. cong [CP Akiu jinlai zheli ] dao [CP ta likai ],
from Akiu enter here to he leave
Lisi yi-ju hua dou mei shuo.
Lisi one-C1 sentence all have-not speak
'From the moment Akiu entered here to the moment
he left, Lisi did not say a word.'
b. cong [cp Akiu shenmeshihou qichuang] dao [cp ta zainali chifan],
from Akiu when wake-up to hewhere eat
Lisi dou dating-de yiqingerchu
Lisi all investigate-De thorough
‘From the question of when Akiu wakes up to the question of where he eats,
Lisi made a thorough investigation.’

(73) a. dajia [‘(ba) [cp Akiu neng huo-zhe hui-lai]]
people BA Akiu can live-Dur back-come
dang-zuo yi-xiang qiji.
regard-as one-C1 miracle
‘People regard it as a miracle that Akiu can come back alive.’

b. dajia genben bu [‘(ba) [cp Akiu neng-bu-neng huo-
people at-all not BA Akiu can-not-can live-
zhe hui-lai]]
Dur back-come
dang-zuo yi-hui shi.
regard-as one-C1 matter
‘People don’t think it matters at all whether Akiu can come back or not.’

The overwhelming generalization thus appears to be that, unlike English CPs, Chinese clauses behave very much like reduced or nominalized CPs insofar as they have the same distribution as nominals with respect to case.

The sum consequence of these points for the distribution of _de_ I summarize as “Li’s Generalization”, which is implicit in Li (1985) and is counterpart to Samiian’s Generalization for Farsi.
Li’s (1985, 137-139, fn. 8) theoretical hypothesis about the nature of Chinese *de* likewise parallels Samiian’s Hypothesis about the nature of Ezafe:

**Li’s Generalization**: Chinese *de* in nominals is uniformly preceded by a case-bearing phrase (a noun, an adjective, a place nominal, or a clause).

**Li’s Hypothesis**: Chinese *de* is a case-assigner.

Li (1985) attempts no development of the case-assigner idea beyond noting its fit with the distributional facts, and indeed it’s not hard to appreciate why. Under Li’s hypothesis, *de* occurs to the right of phrase it’s taken to case-mark, and hence must be analyzed as assigning case leftward. But one of the core claims of Li’s thesis is that Chinese is a language wherein case is assigned exclusively rightward. Hence if *de* is in fact a case-assigner, it represents a serious anomaly for her proposals. Li gestures at an alternative view of *de* as inherent case, following Chomsky’s (1986) analysis of English genitive’s as the realization of an inherent case assigned by N. But in fact this suggestion offers no help, since it would also require leftward case-assignment in Chinese, from N to what precedes it. It is perhaps because of these difficulties that in Li (1990), the published version of Li (1985), discussion of nominal *de* disappears.

### 3.2 *De* as Concordializer

I concur with Li’s basic insight that occurrence of *de* is fundamentally a case-related phenomenon, but I want to advance the idea that *de* is neither a case-assigner/case-checker nor the realization of inherent case. Rather *de* is an adjectivalizing/concordial-
izing element, fully counterpart to what is found in the Caspian languages of Iran under the analysis developed above. I will call this the "Reverse-Ezaf e Hypothesis".

**Reverse-Ezaf e Hypothesis**: Chinese *de* is an adjectivalizing/concordializing element.

On this view, phrases (XP) co-occurring with *de* obtain case, not through assignment/checking as in (74a), but rather by agreement under c-command from a higher probe (α) as in (74b):

\[(74)\]

a. ![Diagram a]

\[\times\]

b. ![Diagram b]

The Reverse-Ezaf e Hypothesis appears to predict all of the core distributional properties of Chinese nominal *de*, the fact that what precedes it, and what it attached to on this analysis, must be a case-bearing phrase (a noun, an adjective, a place nominal, or a clause). It also predicts the basic prenominal position of the *de*-phrase, which intercepts the probe-goal case relation in order to allow agreement. However there are two important divergences from what happens in the Reverse-Ezaf e, Caspian languages that require comment.

### 3.2.1 Chinese CPs Again

We observed earlier that in the Caspian languages, and in Pashto too, reduced/nonfinite clauses that are complements or modifiers of N occur prenominally, but that their finite counterparts are strictly post nominal (52)-(53) (repeated below). We
speculated that post nominal position was in fact basic; since finite clauses (and true PPs) do not require case for licensing, they are not forced to relocate for case reasons, unlike \([ + N \)] elements. Hence they reveal the underlying projection site.\(^\circ\)

(52) a. 'i [suyisé ji vagarse] juvon
   this [SW-REZ from back-turn REZ? ] young
   ‘this young (person) returned from Switzerland’

b. RRC-REZ N

(53) a. umarde [ki Hasan (diru) bide ]
   that man-REL that Hasan (yesterday) seePST3sg
   ‘the man that Hasan saw (yesterday)’

b. N FRC

In Chinese all relative and complement clauses of N occur prenominally. None occur post nominally. Hence the sort of alternation we observed earlier for Gilaki ((52) and (53), repeated below) finds no equivalent in Chinese (75):

(75) a. [ wo mai ] de shu
   I buy book
   ‘the book(s) that I bought’

b. *shu [ wo mai ]

(76) a. dajia [ Akiu neng huo-zhe hui-lai ] de xinnian
   people Akiu can live-Dur back-come belief
   ‘people’s belief that Akiu can come back alive’

b. *dajia de xinnian [ Akiu neng huo-zhe hui-lai ]

One way of putting this observation is to say that in Chinese, all relatives and noun complement clauses behave positionally as if they were non-finite.
It is tempting to try to ascribe this behavior to the familiar fact that Chinese lacks finite tense marking – i.e., to conclude that finiteness is simply absent from the language and hence its CPs all pattern as non-finites, which are known to show the properties of nominals cross-linguistically. However Huang (1982), Li (1985) and Tsai (1995) (among others) have argued persuasively that finiteness distinctions are present in Chinese, even if largely invisible. My own tentative suggestion is that the general pattern of Chinese be viewed as analogous to that of Turkish, which exhibits finite tense in main clauses and to a limited extent in subordinate clauses, but whose relative and noun complement clauses are uniformly of the reduced/participial type. That is, Chinese grammar may covertly encode finiteness distinctions of various sorts in verbal complement clauses, but it covertly encodes only the properties of reduced and/or participial clauses in clausal complements and modifiers of N.

The view that Chinese relatives are covertly reduced/participial finds interesting semantic support in work by del Gobbo (2005) on ordering properties of prenominal relatives in Chinese. In brief, Chinese prenominal relatives expressing generic, individual-level properties (habits, abilities, likes/dislikes) order freely among themselves (77a,b); so do relatives expressing episodic, stage-level properties (like meeting someone on a specific day) (78). However, when the two types of relative clause combine, an ordering restriction arises. Specifically, relatives receiving a generic, individual-level interpretation must order closer to the noun than those receiving an episodic, individual-level interpretation (79):

(77) a. \[_{RC}Hui\ shuo\ Yidaliyu\ de\]\[_{RC}xihuan\ qu\ yinyuehui\ de\]
can speak Italian like go concerts

ren shi Zhangsan.

person is Z.

'The person who speaks Italian who likes to go to
concerts is Zhangsan.'

b. $\text{[RC} \text{Xihuan qu yinyuehui de]}[\text{RC} \text{ hui shuo Yidaliyu de}]$
ren shi Zhangsan

(78) a. $\text{[RC} \text{Cong Yidali huilai de }] [\text{RC} \text{wo zuotian kanjian}
from Italy return I yesterday meet}
de] ren shi Lisi.

person be L.

'The person who returned from Italy who I met yes-
terday is Lisi.'

b. $\text{[RC} \text{Wo zuotian kanjian de]} [\text{RC} \text{ cong Yidali huilai de}]
ren shi Lisi.

(79) a. $\text{[RC} \text{Wo zuotian kanjian de]} [\text{RC} \text{xihuan qu yinyuehui}
I yesterday meet like go concerts}
de] ren shi Lisi.

person is L.

'The person I met yesterday who likes to go to con-
certs is Lisi.'

b. $\text{[RC} \text{Xihuan qu yinyuehui de]}[\text{RC} \text{wo zuotian kanjian}
de] \text{ ren shi Lisi.}$

Larson and Takahashi (2007), upon whose work del Gobbo’s is
based, show that this restriction is in fact a very general one,
clearly exhibited by prenominal relatives in Japanese, Korean,
and Turkish. They furthermore show that it parallels a restriction
found with English participial adjectives in examples like (80a-d),
due to Bolinger (1967):
(80) a. the stars visible (include Capella and Sirius)
   the visible stars
b. the rivers navigable (include the Nile and the Ganges)
   the navigable rivers
c. the individuals responsible (were contacted.)
   the responsible individuals
d. the jewels stolen (were on the table.)
   the stolen jewels

Bolinger noted a contrasting interpretation in such pairs, also involving the stage-level/individual-level distinction. The post nominal instances attribute a temporary, S-level property, one true on a particular occasion (e.g., being visible or navigable now), whereas the prenominal versions attribute a characteristic or I-level property, one that holds generally (e.g., being visible to the unaided eye, or characteristically traversable by water). This difference is truth-conditional. On a night where clouds hide the sky, (81a) is false since Capella cannot be seen; however (81b) is still true since, even when hidden, Capella remains an intrinsically visible star.

(81) a. The stars visible include Capella.
   b. The visible stars include Capella.

Importantly, the relevant distinction is not in fact one of pre- vs. post nominal position. As (82a, b) show, it is possible to get two instances of the same adjective non-redundantly, either flanking N, or with both instances in prenominal position. In the latter case, speakers have a clear intuition that the outer adjective corresponds to the episodic, stage-level predicate, whereas the inner one corresponds to the generic, individual-level predicate;

(82) a. The visible stars visible include Capella.
b. The visible visible stars include Capella.

**S-LEVEL I-LEVEL**

This indicates that, rather than correlating with pre- vs. post nominal position, as Bolinger originally described, the difference in readings actually correlates with proximity to N. Specifically, participial adjectives receiving an I-level interpretation must order closer to the noun than ones receiving an S-level interpretation (83a). This is precisely the pattern observed earlier with prenominal relative clauses (83b):

(83) S-LEVEL I-LEVEL

a. AP | AP N English participial adjectives

b. RC...RC | RC...RC N Chinese, Japanese, Korean, Turkish prenominal relative clauses

Larson and Takahashi (2007) account for this ordering restriction semantically. Adopting the general DP Hypothesis, they analyze S-level modifiers (β) as occurring in the outer DP-domain, and I-level modifiers (α) as occurring in the inner DP-domain (84a). The reason for this distribution is fundamentally scope. Larson (1998, 2000) proposes that NP in DP always contains a generic quantifier (Γ) with scope limited to NP (84b):

(84) a. \[\text{DP } D \beta \text{[NP } \alpha \text{ N]}\beta \] (α = NP-modifier; β = DP-modifier)

b. \[\text{DP } \beta \text{ [NP } \Gamma \text{ e [ } \alpha \text{ N } ] ] } \beta \]

It follows that modifiers inside NP (α) will have potential generic, I-level readings since they will fall within the scope of Γ. Modifiers outside NP (β) will be unable to get an I-level, generic reading since they fall outside the scope of Γ.

Full, post nominal relative clauses in a language like English do not exhibit the ordering restriction found with prenominal rel-
atives. (85a, b) are equally acceptable. Under the analysis given above, this entails that post nominal relatives like *who smokes* must contain their own source of generic quantification independent of NP. Not depending on NP, they would not require the proximity to NP that yields an ordering effect (86a, b).

(85) a. The person [who I met] [who smokes]
   b. The person [who smokes] [who I met]

(86) a. The [NP T person] [who I met] [T who smokes]
   b. The [NP T person] [T who smokes] [who I met]

Since prenominal relatives do show the ordering restrictions, these results imply that they must lack an independent generic quantifier and whatever syntactic structure accompanies it. Prenominal relatives must therefore be, in that sense, "smaller and reduced", more similar to English participial, deverbal adjectives than to English finite relative clauses. This interesting line of evidence indicates that Chinese prenominal relatives are reduced and participial-like in an important semantic sense. I suggest that their fundamentally nominal character arises from this source.

3.2.2 Chinese APs

I noted above the conjecture by Karimi and Brame (1986) that Ezafe languages are "super nominal": items projecting as adjectives or prepositions in other languages project as nouns in them. It was Karimi and Brame's suggestion that occurrence of Ezafe is tied to this fact – in effect, as a thoroughgoing reversal of the kind of pattern that we see pairs like (87) and (88). Although prenominal adjectives are a far more prevalent structure of modification in English than the post nominal genitive of + N form,
one can imagine a language in which that distribution was inverted, and the latter was central, if adjectives were indeed categorically Ns.

(87) a. a beautiful thing
    b. a thing of beauty

(88) a. a tall/high building
    b. a building of (great) height

I speculated that Reverse Ezafe languages are super-nominal too, like Farsi, but choosing the equivalent of an’s- genitive strategy for case licensing rather than the of-genitive. English also employs prenominal’s-genitives in a limited range of modificatory contexts counterpart to adjetival forms ((89) and (90)). These genitives occupy the position of adjectives, below determiners, and possessive genitives (89c) and (90c). Again, although prenominal adjectives are dominant in English, one could imagine a language in which that distribution was inverted, and prenominal genitive structures for modification were central.

(89) a. juvenile literature
    b. children’s literature
    c. Barnes and Noble’s children’s literature

(90) a. male fashions
    b. men’s fashions
    c. Macy’s men’s fashions

Since I am analyzing Chinese as a Reverse Ezafe language, the implication is that super-nominality holds of its adjectives too given that they co-occur with de.

(91) a. piaoliang de yifu
    pretty clothes
    b. congming de ren
This conclusion is still under investigation at present, and ostensibly poses something of a problem for my account. Most specialists have analyzed Chinese adjectives – especially those in predicative use – as essentially verbal in nature, if anything less nominal than their English counterparts. In offering her case-based analysis of *de*, Li (1985) appeals to the traditional [* + N*] feature classification of adjectives, and takes them to be case-bearing on those grounds, but she also describes adjectives as verbal in nature, so the issue is left somewhat confused.

If Chinese adjectives are not fundamentally nominal, one option for the present account might be to analyze prenominal adjective constructions with *de* as uniformly involving relative clauses, an idea proposed by Sproat and Shih (1988, 1991); (91a, b) would thus be analyzed as in (92a, b). This view would not require “super-nominality” of adjectives in Chinese since they would not actually find themselves directly in construction with *de* in attributive constructions.

(92) a. \[_{RC} \ldots \text{piaoliang}] \quad \text{de} \quad \text{yifu}

pretty \quad \text{clothes}

b. \[_{RC} \ldots \text{congming}] \quad \text{de} \quad \text{ren}

intelligent \quad \text{person}

The relative clause analysis has recently been challenged by Paul (2005), chiefly based on the existence of so-called “non-predicative” adjectives like *fang* ‘square’, which do not occur as main clause predicates on their own (93a), and require *shi* and *de* to be co-present (93b). Paul takes it as a telling argument against the relative clause analysis that when adjectives like *fang* occur attributively, they exhibit *de* but not *shi*, apparently showing that a
predicative sentence context is not present (93c, d):

(93) a. *Zhei-ge panzi fang
   This-CL plate square
   'this plate is square'

b. Zhei-ge panzi shi fang de
   This-CL plate be square
   'this plate is a square one'

c. Ta mai le yi-ge fang de panzi
   (s)he buy ASP one-CL square plate
   '(S)he bought a square plate'

d. *Ta mai le yi-ge shi fang de panzi
   (s)he buy ASP one-CL be square plate
   '(S)he bought a square plate'

I don't find Paul's argument with fang (and similar items) decisive at this point since it relies crucially on an unexplained puzzle, namely, why (93a) is excluded in the first place. In early generative grammar it was also proposed that English prenominal attributive adjectives derived from a relative clause source, specifically by a process of reduction and fronting (94):

(94) a. the plate [which is square]

b. the plate [which is square] (delete wh+be)

c. the square plate [which is ___] (front AP)

This analysis was refuted, however, by the observation of English attributive adjectives like former that are essentially non-predicating. Thus a relative clause analysis for (95a) is precluded since former cannot function as a main predicate (95b), and hence cannot function as a main predicate in the relative clause (95c) that must be postulated as the source of (95a):

(95) a. a former president
b. * This president is former

c. * a president who is former

Note carefully that the argument here is not simply that former does not occur as a main predicate, but rather that it could not do so. It could not do so because, semantically, former is not a predicate of individuals at all — not the sort of expression that is suited to function as a predicate in the first place. Similarly for adjectives like past in past president or longtime in longtime friend. Such examples offer compelling counter-evidence against the relative clause analysis because a predicational source construction is not just accidentally absent, but excluded on principled grounds.

So far as I can tell, this is not clearly true with the forms enlisted by Paul (2005) to argue against the relative clause analysis for Chinese. There seems nothing semantic, for example, that would exclude fang (and analogous adjectives) from appearing as main predicates; they seem perfectly respectable predicates of individuals. Indeed since the semantics of fang de panzi 'square plate' is undeniably intersective modification, fang must be functioning as a predicate in the attributive construction, whether a full clause is present or not. The non-occurrence of fang in the predicative structure (93a) is thus mysterious and can reflect at most a syntactic constraint and not the principled sort of exclusion found with English former. But if this is true, there is also the logical possibility that the constraint excluding fang as a main predicate in (93a) is lifted in the relative clause construction, and hence that fang occurs in a relative clause after all. So at present the status of Chinese adjectives, and whether they pose a threat to Reverse Ezafe analysis remains unclear, and I must leave the matter there.
4 The Indispensability of Abstraction and the Necessity of Comparison

In this paper I have examined a much-discussed and long-debated area in Chinese grammar: the nature of nominal *de*. The data are familiar, and analytical proposals are abundant, but evidence from within Chinese grammar has thus far failed to produce consensus as to the nature of *de* or its correct analysis. I have suggested that a unique window into this problem area is provided by the family of Iranian languages, which includes not only members showing a pattern closely parallel to Chinese – Reverse Ezafe in the Caspian languages – but also members showing subtly different, but plainly related patterns – Ezafe in Farsi and the "non-Ezafe" pattern of Pashto – giving the phenomenon an extremely rich context for analysis. I have spelled out one of the core proposals regarding the Iranian languages – Samiian’s (1983, 1994) proposal that Ezafe is a case-marker, and I have sketched my own case-based, "concordial" analysis of Reverse Ezafe particles. In the last part of the paper, I connected this analysis back to one of the many proposals about Chinese *de* that have arisen in the literature; namely, to Li's (1985) empirical observation that *de* attaches strictly to case-bearing categories, and her theoretical proposal that *de* functions as a case-marker. I have argued that Li's analysis is fundamentally correct, and that if we accept it, we draw together understanding across two widely separated language groups. These conclusions illustrate, to my mind, two important broader points about linguistic research: one is the need for a certain courage in dealing with abstractions; the other is the limita-
tions of traditional grammar.

Chinese is, as we know, a language without significant morphology of the traditional sort, and a language entirely without case in any superficially recognizable form. It was therefore a step of considerable abstraction, and an act of considerable intellectual courage in my opinion, to postulate not only that case was present in Chinese, but that it was in fact responsible for some of the most basic distributional patterns in the language, moving behind the scenes, in large and small ways, revealing itself in the patterning even of tiny, "insignificant" elements like *de*. If the conclusions reached above are on the right track, not only was this step upwards into abstraction justified, it was, and is, indispensable to providing a true glimpse into the workings of Chinese grammar.

Our conclusions also return us to the question we began with: Can the grammar of Chinese be determined by linguists working with data from Chinese alone? This is, after all, the basic stance of traditional grammar; that the study of a language can proceed, and understanding of that language can derive, from facts about it taken in isolation. I myself am highly skeptical. It is true that Li's case-marking hypothesis did arise among the large stable of proposals in Chinese linguistics that have been offered over the years about *de*. So if Li's hypothesis were confirmed with Chinese data, such a result might be taken to show that understanding Chinese requires only proposals arising from studies of Chinese. But such a conclusion would be utterly false. Li's proposal about case in Chinese arose against the backdrop of theory (generative grammar) developed for non-Chinese languages. The concept of case is (so far as I know) wholly absent in Chinese traditional grammar, and
indeed from a certain perspective could be seen as an importation of "foreign" notions into a language where they don’t belong. Nonetheless, the core conclusion that we’ve reached in this paper is that, as Li (1985) and subsequent researchers argued, case is indispensable to understanding the grammar of Chinese. Once we admit that extra-Chinese grammatical concepts are crucial to its understanding, we have admitted that the extra-Chinese data from which those concepts were extracted are crucial to its understanding as well. And once we admit that, it seems to me we must concede that our analysis of Chinese de might be crucially illuminated by facts from other languages, spoken in places as far away as Iran.

Notes

① A similar pattern is found in Sorani Kurdish. See Thackston (2006).


③ The data in this section are drawn from Tegey and Robson (1996).

④ An exception to the latter generalization is the so-called "independent genitive", in which's marks an of-object (e.g., a friend of John's). I will not discuss the independent genitive here.


⑥ Evidence that Ezafe forms a constituent with its following phrase is found in Kurmanji, with so-called "Absolute Ezafe" (Wurzel 1997, cited in Strunk 2003). Examples like (ia) and (iia) appear to involve an empty noun meaning approximately ‘one’ followed by Ezafe, so that (ia) has structure (ib) with literal gloss ‘one EZ me’, and (iia) has structure (iib) with gloss ‘name EZ one EZ big’:

(i) a. ya  
    EZ. FEM. SG  1. SG. OBL  
    ‘mine’ (feminine) (Wurzel 1997, 25)

    b. [N $\emptyset$]  ya  min
(ii) a. nav-é 
yé 
mezín
name-EZ.MASC.SG EZ.MASC.SG big
‘the big one’s name’ (Wurzel 1997, 31)
b. nav-é [N ø] yé mezin

The existence of Absolute Ezafe constructions seems to directly refute the proposal by Samvelian (2005, 2007) that Ezafe constitutes morphology on its preceding N indicating a modificatory relation with the following XP. With Absolute Ezafe constructions no overt N is present, yet Ezafe itself still appears, together with its following phrase, as the constituency [Ezafe XP] would predict. Evidently in Kurmanji, unlike Farsi, Ezafe simply needn’t be clitic-like.

7 See Abney (1987) for a discussion of this idea, as well the proposal in (40c).

8 More precisely, α must be c-commanded by the probe, and must c-command the goal. As discussed in Larson (in prep) there is a situation in which an agreeing α might occur licitly below N, viz., where α agrees with another element β that itself raises to the canonical agreeing position between probe and goal. This would allow α to agree with N through β:

(i) [T/v . . . β . . . [N . . . [β . . . α]]]

move
agree

This situation is proposed for languages like French, where the raising element β is identified as D/d. See Larson (in prep) for details.

9 These proposals are made precise in Larson (2008, in prep) using the theory of features and agreement developed in Pesetsky and Torrego (2004). I omit technical details here for simplicity.

10 Note that in (44b), the gender marked on the possessive adjective (FEM) actually disagrees with that of the noun stem Jan (MASC). This shows clearly the agreement nature of the inflection.

11 See, for example Chomsky (1970) and much subsequent work.

12 This analysis is challenged by Ernst (1998), and defended in Huang, Li and Li (2009).

13 Li (1985) does not analyze all instances of zai as main predicates, and indeed analyzes some as Ps. Thus Li proposes that the ill-formedness of (ia-d) with zai arises precisely because the latter would form a PP with its following noun, yielding an instance of PP in a case position, which is disallowed (see Li 1985, 62):

(i) a. Women xuan (* zai) gongyuan zuowei yecan didan
we choose at park act-as picnic place
‘We chose (‘at) the park to be the place for a picnic.’

b. Wo zhida (‘zai) mingtian you hao tianqi
   I know (‘at) tomorrow have good weather
   ‘I know that (‘at) tomorrow there will be good weather.’

c. (‘Zai) xing kong xia shi shuijiao de hao difang
   (‘At) star sky under be sleep good place
   ‘(‘At) underneath the stars is a good place to sleep.’

d. cong (‘zai) men de houbian
   from (‘at) door back
   ‘from behind the door’

15 See Cheung (2006a, 2006b) for related proposals.

16 For further development of this idea, see Larson and Yamakido
   (2008).

16 In formal terms fang de panzi must translate as $\lambda x[\text{square}'(x) \& \text{plate'}(x)]$, where square’ and plate’ are both predicates of individuals.

12 By contrast Yamakido (2005, 2005), whom Paul (2005) cites, does
   provide the sort of semantically non-predicating adjectives for Tokyo Japanese
   that make a compelling case against the relative clause of prenominal adjectives
   in that language. Yamakido left open the question of whether the Japanese
   spoken in southern dialects had a true attributive construction since the appro-
   priate adjectives to refute the relative clause analysis were not available there.

References

   dissertation, Cambridge: MITWPL.

Bolinger, D. (1967) Adjectives in English: Attribution and Predication. Lingo-
   gua 18: 1-34.

Cheung, Candice(2006a) Attributive Adjectival Modification with de in Chi-
   nese. Paper presented at LSA Summer Meeting, Michigan State University.

———(2006b) Chinese “Modifying” de as a Case Marker. Paper presented at

Chomsky, Noam(1970) Remarks on Nominalization. In Robert Jacobs and
   Peter Rosenbaum (Ed.), Readings in English Transformational Gram-
   mar, pp.184-221. Waltham, MA; Ginn.


(2001a) Beyond Explanatory Adequacy. Cambridge, MA: MITWPL.


Samvelian, Pollet (2005) When Morphology does Better Than Syntax: The Ez-
afe Construction in Persian. unpublished ms.

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