THE CONSTRUCT STATE IN BERBER*

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This paper deals with the construct state (CS) in Berber within the minimalist framework. I argue that genitive constructions, or CSs of the type: [$_{DP}$ N (prep) NP], are derived by means of N-raising to D in parallel with V-raising to T in TPs in conformity with the Head Movement Constraint. I adopt the DP analysis whereby CSs are DPs headed by D. This claim implies that D contains an AGR that may be overt or covert in Berber. At any rate, AGR triggers Gen(itive) case under Spec-Head agreement. I will argue that N-raising to D in such structures is due to the strong N-feature of the functional head D in Berber.

The paper is organized as follows. Section 1 presents data and describes the salient characteristics of CSs in Berber.[1] Section 2 deals with CSs as involving N-raising to D. Section 3 includes the agreement analysis of CSs. Section 4 discusses postmodifiers and how they agree with CSs in Berber.

1. Data

Consider the following examples:

(1) a. tafunast (n) wrba
         cow   of   boy
         'The boy's cow'

    b. aDar   (n) wryaz
         foot   of   man
         'The man's foot'

    c. tasarut   *(n) tHanut
         key   of   shop (fem)
         'The key of the shop'

    d. imi   *(n) isli
         mouth   of   the bridegroom
         'The bride groom's mouth'

    e. idamn   *(n) ifullusn
         blood   of   chicken
         'The chicken's blood'

(2) a. taguni   (n)   wsrdun
         sleeping   of   mule
         'The mule's sleeping'

b.   ign   wsrdun
     slept   mule
     'The mule slept.'

c.   iɣrsi   n   wryaz   i   wHuli
     slaughtering   of   man   to   sheep
     'The man's slaughtering of the sheep'

d.   iɣrs   wryaz   i   wHuli.
     slaughtered   man   the sheep
     'The man slaughtered the sheep.'

According to Guerssel (1986), in Berber the NPs that form the CS are not a homogeneous class. Subject NPs in VSO sentences are in the CS form:

(3)   iswa   w̱rba   aman.
      drank   boy   water
      'The boy drank water.'

while object NPs and left-dislocated NPs are not marked for the CS:

(4)   a.   inɣa   Ahmed   arba
           kill   Ahmed   boy
           'Ahmed killed the boy.'

      b.   arba,   inɣa-t   Ahmed
           boy   kill-him   Ahmed
           'The boy, Ahmed killed him.'

Likewise, object prepositions are in the CS:

(5)   xf   w̱rba
      on   boy
      'about the boy'

whereas complements of some prepositions are in the free state form:

(6)   idda Ahmed   bla   arba
      left Ahmed   without   boy
      'Ahmed left without the boy.'

Noun complements in genitive structures are always in the construct form, as in (1) above.

In Tashlhit Berber, the CS is absent, i.e., only the 'of'-phrase is possible, while in Tamazight Berber, with which I am dealing, the CS is present but restricted in the sense that it is phonologically conditioned. The noun family where the two possibilities (CS and 'of'-phrase) are available is the one that consists of masculine nouns having consonant-initial stems. The corresponding stems in (1a-b) are: -rba, ryaz. However, if a noun is either feminine or includes a vowel-initial stem, the occurrence of the genitive marker is compulsory. (Cf. Guerssel 1986.)

The issue of the formation of the CS in Berber is perhaps phonological, but it is unclear to what extent phonology and syntax interact. The genitive preposition *n* is presumably omitted at PF for phonological reasons that are beyond the scope of
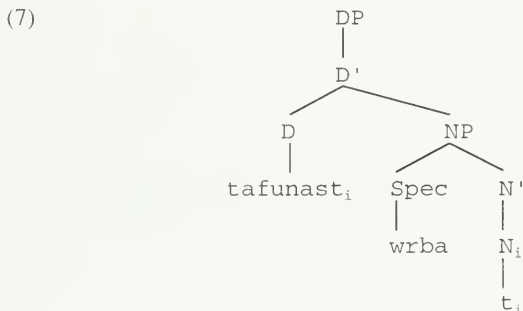
this paper. (Cf. Chaker 1983; Guerssel 1986; El Moujahid 1993; and Sadiqi 1986a, 1986b.)

Examples in (1) are constatives and in (2) include derived nominals. Both structures are commonly referred to as construct state nominals, which are characterized by the following major properties:

- lack of a preposition
- strict adjacency
- the head N precedes the genitive phrase and bears the case of the entire construction
- the head N assigns Gen case to the argument it immediately governs
- the head N can never have a definite determiner.

2.   N-raising to D

In (2) above the CS contains a derived nominal with two arguments, subject and object, as in VSO sentences (2a) and (2b). This illustrates that there is a structural parallelism between verbal sentences and CSs in Berber, which backs up the DP hypothesis. I assume that CSs are derived as in (7), respectively:

(7)

```
                        DP
                        |
                        D'
                    ___/ \___
                   /         \
                  D           NP
                  |        __/  \__
           tafunast_i    Spec    N'
                          |       |
                         wrba    N_i
                                  |
                                  t_i
```
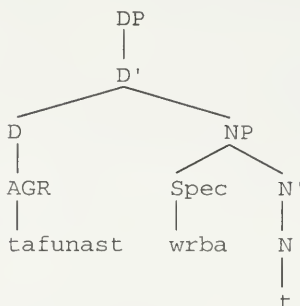
In (7), the head N is raised from within the lexical projection NP to D, whereas the genitive complement remains in-situ, which results in a CS. Evidence for the fact that the genitive NP does not move comes from the process of nominalization, which necessitates the order NSO, as in verbal clauses.
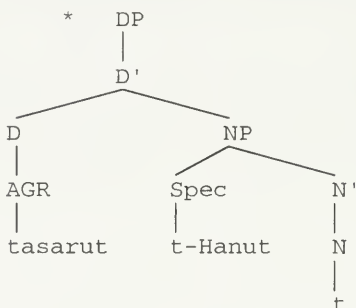
N-raising to D conforms with the Head Movement Constraint, and the motivation behind it is to discharge Gen case onto the argument on its right. But how are definiteness and agreement related? Why is a definite determiner prohibited from appearing on the head N in CSs?

These questions find a reasonable answer in the DP hypothesis where CSs are argued to be DPs headed by D Gen. This claim implies that D contains an abstract AGR that triggers Gen case. Thus, it is in complementary distribution with overt determiners (Aoun 1978, Rizzi 1990). Under this view, the structures of the well-formed CS in (1a) and its ill-formed counterpart in (1c) are expected to be as in (8a-b), respectively.

(8) a.

```
                        DP
                        |
                        D'
              _____|_____
             D                     NP
             |                    /  \
            AGR               Spec    N'
             |                  |      |
         tafunast             wrba     N
                                       |
                                       t
```

b.

```
                  *     DP
                        |
                        D'
              _____|_____
             D                     NP
             |                    /    \
            AGR               Spec      N'
             |                  |        |
          tasarut           t-Hanut      N
                                         |
                                         t
```

In (8b), unlike in (8a), the abstract AGR fails to case-mark the subject *tasarut* due to the presence of another head, the prefixal determiner *l-*; the latter, like its English equivalent *the,* is not a case-marker; thus, the resulting structure is filtered out (at PF) as a Case Filter violation. The same restriction is witnessed in the following example:
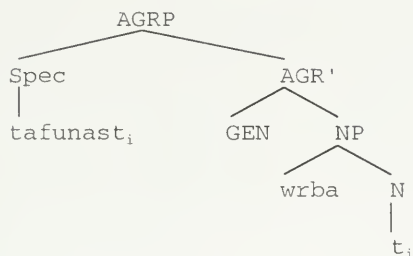
(9) *l-biru   ta-l-mudir-t
     the-office (fem-)the-director(-fem)

In (9) the argument *ta-l-mudir-t* 'the director' does not receive its due genitive case given the absence of the genitive preposition *n*. The questions to be raised are: Do CSs really involve any agreement at all, apart from abstract AGR? If so, what features does this agreement involve?
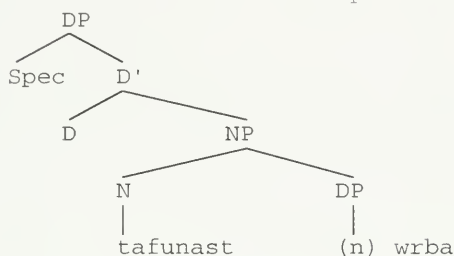
For Guerssel (1986), free state forms are Kase Phrases (KPs) including a case-marker, whereas the CS is a DP containing a determiner and a noun. For Guerssel, nearly all elements traditionally called prepositions in Berber are actually nouns or case-markers that behave as heads of KPs, and thus a proper treatment of prepositions can help us understand the CS.

In Berber, the genitive preposition is a reflex of an overt AGR that assigns Gen case to its Spec. These agreement facts suggest that NPs in Berber contain an AGR node. These NPs are not only DPs, but also AGRPs:
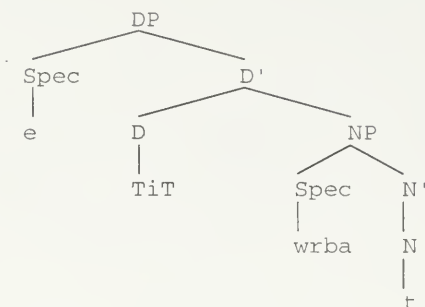
(10) a.

```
                          AGRP
              ┌────────────┴──────────┐
            Spec                     AGR'
              │                  ┌────┴────┐
         tafunast_i            GEN        NP
                                      ┌────┴────┐
                                    wrba        N
                                                │
                                               t_i
```

      b.

```
                        DP
                ┌───────┴───────┐
              Spec             D'
                         ┌──────┴──────────┐
                        D                  NP
                              ┌────────────┴────────────┐
                             N                          DP
                             │                          │
                          tafunast                  (n) wrba
```

In (10a), the head N *tafunast* is raised to the Spec of AGRP for reasons of genitive case-checking; an AGR-Gen assigns genitive case to its complement *wrba*. In (10b), there is no agreement, and AGR is not projected; the Spec of DP is not a case position. Thus, the head N is not raised, and the complement *wrba* receives its case from the preposition *n*.

According to Ouhalla (1988), noun phrases may be DPs or AGRPs depending on whether they display overt (Spec-Head) agreement. With this in mind, let us examine the following examples:

(11) a.   TiT   wrba
              eye   boy
              'The boy's eye'
      b.   *wrba   TiT
              boy   eye

Observe that the possessor NP must surface after the head N; this is determined by the directionality of genitive case assignment in Berber. The starred example is excluded by the Case Filter because the movement of the possessor argument is not motivated by feature-checking. Besides, agreement is not morphologically manifested.

(12)

```
                              DP
                   ┌──────────┴──────────┐
                 Spec                    D'
                   │              ┌───────┴───────┐
                   e             D               NP
                                 │          ┌─────┴─────┐
                                TiT        Spec         N'
                                            │           │
                                          wrba          N
                                                        │
                                                        t
```

        The head N raises from N to D, and c-commands the subject in [Spec, NP] but does not overtly agree with it in any feature, government and agreement being in complementary distribution in Berber. The possessor NP is licensed because it is c-commanded by lexicalized D.

        There are two more arguments in favor of the idea that Berber CSs have an AGRP, either overt in the syntax or covert at LF. First, D can be filled by the definite article and AGR:

> (13) t-zdaγ   di   [matta   tarbat]?
>   she(-AGR) lives   here which   girl
>   'Which girl lives here?'

The bracketed wh-phrase agrees with the VP in person, number, and gender in the way that V agrees with the postverbal subject in the free state order.

        A second piece of evidence for the existence of an AGR node in DPs comes from extraction facts:

> (14) a.   tannayt   arba n   mi?
>   saw-you   son of   who
>   'Whose son did you see?'
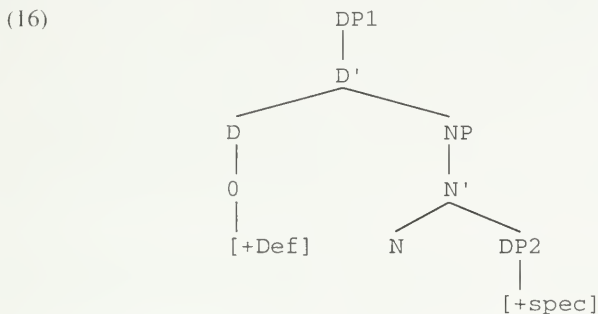>   b.   *n mi tannayt arba?
>   of whom saw-you son

        The ungrammaticality of (14b) is attributed to the fact that AGR in DP is weak and may not license the displaced wh-phrase. Thus, I argue that DPs of the type exemplified in (13) are AGRPs. We can assume therefore an abstract AGR node, which is satisfied at LF. Consider the following:

> (15) arba-n-s
>   son-of-him
>   'His son'

        The Poss marker is taken to be a spell-out of AGR, which is triggered after NP-raising to [Spec, DP]. In Berber, the CS constructions are considered to be of the form [DP N (Prep) NP]. In these constructions, the head of DP may be either a N or a derived nominal. The genitive preposition *n* in Berber may be deleted, as in other Semitic languages. When the genitive preposition is present, the features of

the genitive constructions are checked by this lexical preposition (see Guerssel 1986). In Berber, the genitive preposition *n* may be deleted, especially if the noun is masculine having consonant-initial stems, as mentioned in Section 1.

In the above examples, the DP construction has a regular N as its lexical head; the feature [+Def] is inherent to DP given the nonexistence of an overt definite article (apart from the borrowed Arabic definite article *–al*). Thus, the representation of DP constructions is as follows:

(16)

```
                        DP1
                         |
                         D'
                    ┌────┴────┐
                    D         NP
                    |         |
                    0         N'
                    |      ┌──┴──┐
                 [+Def]    N    DP2
                                 |
                              [+spec]
```

In this configuration, the functional head D is projected for syntactic reasons. The functional head D is not phonetically realized and it contains only the abstract feature [+referential] represented at LF for reasons of full interpretation. The position [Spec, NP] is the generation site of subject DPs which are outside the domain of N' in D-structure. Object DPs are generated in the position complement of N. We assume that the lexical head N moves to D, as we have established for the derivation of the simple DP structure.

The raising of N into D is not related to Baker's Affixation Principle (1985, 1988) given that there is no affixal article under the node D. The abstract AGR that is contained in D can validate the case assigned to DP in its totality, when the latter is subject or object.

As we have previously mentioned, the element D is marked intrinsically by the nominal feature [+N] and the abstract feature [+Def], which are both diffused in the whole projection DP. These properties make D apt to receive N which incorporates into it, thus instantiating a case of head to head movement (cf. Chomsky 1986).

What seems to motivate the movement of N into D in these constructions is the requirement of the Directionality Principle, especially because D contains an abstract AGR validating the case assigned to DP (cf. Koopman 1984). Similarly, what motivates the VSO order in IP is the Directionality Principle as has already been mentioned; the latter principle is behind the order in the DP as well. The head N moves to the left of its complement for feature-checking. The feature-checking of case on the complement is done through the preposition in ordinary genitive constructions and through the N in CSs.

Another motivation for the movement of N to D is the necessity of making N, and the whole DP, accessible to case-checking. This fact is verified by the test of the case-marking of the head N in Berber in all syntactic contexts.

(17) a.   yaru   Driss   [tabrat   wryaz].
          wrote   Driss   letter   man
          'Driss wrote the man's letter.'

     b.   [tabrat   wryaz]   tyara.
          letter   man   written
          'The man's letter was written.'

     c.   *l-kartabl   trbat
          the-satchel   girl

If we assume that D does not contain a realized AGR element responsible for Gen case, and if this movement does not differentiate simple DP from complex DP with the structure [_DP N Prep NP], we must analyze Gen constructions on the basis of other principles to account for their analytic property.

Berber is among the languages that adopt the *analytic* strategy in the sense that the case-checking on the complement noun inside DP is done via the preposition that occurs between N and its complement NP.

This strategy distinguishes Berber from the languages with a *synthetic* genitive like Standard Arabic and Hebrew, and makes it similar to Romance languages (see Ritter 1987, Ouhalla 1988, Fassi Fehri 1993, Mohammad 1988, and Benmamoun 1996).[2] It seems to be an alternative to the absence of the morphological element AGR in D, on the one hand, and to the inaptitude of the nominal head to check case features.[3]

3.   The agreement analysis

It has been argued in the literature that there exists a structural parallelism between CSs and verbal sentences, i.e., between DP and TP.

Word order confirms the structural parallelism between IP and DP. Thus, we can state that DPs with derived nominals keep the internal structure of their corresponding IP.

VSO structures are similar to CSs in that the agreement features of the subject and the genitive argument cannot be checked in overt syntax because the heads they are associated with encode weak features. In VSO sentences, V moves successive cyclically to AGR then [AGR-V] moves to T. The raising of V to T imposes the raising of the subject to [Spec, AGRP] and eventually to [Spec, TP], as the licensing of the latter depends on the checking of case and agreement features. V raises to the highest minimal position that is checked in the structure, hence the VSO order.

In CSs, the complex NP must have its features checked at PF (with the use of the 'of' phrase) or at LF in the pure CS.

Overt movement of the genitive NP is barred by Procrastinate because the features of D are weak. Therefore, the head D must remain in-situ until LF. At this level, it can satisfy feature-checking.

According to Abney (1987), there exists an abstract category AGR in the functional head of the nominal group; this functional head has two distinct constituents: Art and AGR. This assumption supports the idea of structural parallelism between TP and DP in the sense that each projection has an inflexional structure containing an agreement element responsible for case-checking. In fact, in TP, AGR is always present, even when it has no morphological form, as in the case of nonfinite clauses in Arabic (cf. Ennaji 1985, chapter 3). The detailed representation of the sentence (TP) is given in (18a), and the detailed representation of DP containing an AGR is given in (18b).
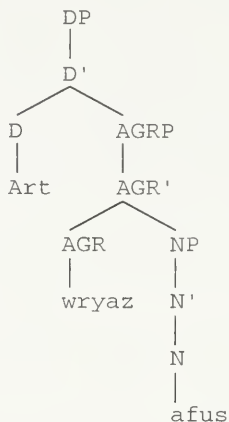
(18) a.
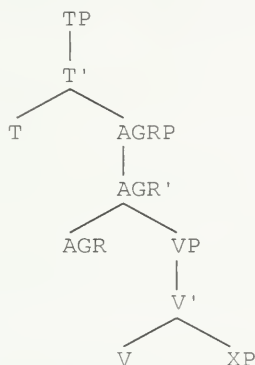
b.
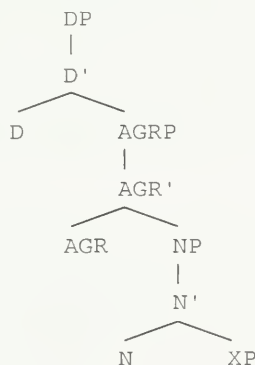
The structural parallelism between a simple sentence and DP is in support of the hypothesis that AGR in the nominal domain has the same role as AGR in the sentential domain. Thus, AGR in TP (18a) determines the relation between the subject and the verb, because it is responsible for nominative case-checking. AGR in DP is involved in the relation between the head noun and its complement, in the sense that AGR is responsible for the genitive case discharged onto the complement NP.

These assumptions can be illustrated by the contrast existing between the two constructions in (19), the derivational representation of which corresponds to the configuration in (20):

(19) a.   afus   wryaz
           hand-nom   man(-gen)
           'The man's hand'
     b.   *l-kas   trbat
           the-glass   girl(-gen)

(20)

```
                          DP
                          |
                          D'
                         / \
                        /   \
                       D    AGRP
                       |     |
                      Art   AGR'
                            / \
                           /   \
                         AGR    NP
                          |     |
                        wryaz   N'
                                |
                                N
                                |
                               afus
```

In structure (20), the NP possessor *wryaz* 'the man' is generated in [Spec, NP] position, in analogy with the positioning of the external argument in [Spec, VP] in the domain TP. In order for N to check off its case and definite features, we assume that the head N, *afus* 'hand', moves into AGR and then D provided that it is empty. In its surface position, N becomes also accessible to another external source for case-checking. By incorporating the abstract AGR, the N becomes able to check the feature Gen of the complement NP, hence the inflected genitive NP *wryaz*.

This analysis accounts for the well-formedness of (19a) in the sense that the raising of N into this structure is made possible by the nonmorphological realization of the element Art in D. The incorporation of N permits AGR to discharge its Gen case onto the NP subject (possessor), and at the same, it validates the Spec-Head agreement relation. At LF, the movement of N in D ensures full interpretation. Alternatively, the same analysis accounts for the non-grammaticality of (19b), where the element Art is realized as the definite Art *l-*. In fact, on the account of Emonds (1985), Abney (1987), and Fassi Fehri (1988), the lexical realization of Art excludes that of AGR, the two categories being in complementary distribution, as is stipulated in the axiom (21):

(21) AGR and [+Def] Art are in complementary distribution.

In consequence, N-raising to D is incapable of discharging the Gen case feature on the NP complement, and the latter will be caseless, which suffices to reject the construction (19b) by the Case Filter.

This analysis can be generalized to the other structures in (17). Thus, the deviant forms in Berber are due to the proposition in (21), and their grammaticality is accounted for by the movement of N to D.

The fact that the head N overtly raises to D is accounted for by the strong N feature, which must be checked off before Spell Out. This movement operation is parallel to that of V-raising to T in verbal sentences. In both operations, movement is triggered by Greed, which specifies that strong features are to be checked at PF.

In addition, in CSs, N-raising to D is required to lexicalize the null D so that it becomes available for case-checking, and as a result a case-checker can occur on its left, as exemplified in:

(22) a.   annay-γ iydi   wrba
           saw-I   dog(-nom) boy(-gen)
           'I saw the boy's dog.'
     b. γal- γ is   iwssir   uyyis   wryaz.
           thought-I   that   old   horse(-nom)   man(-gen)
           'I thought that the man's horse was old.'

In (22a-22b), the head N of the CS has accusative case (although this case is phonologically covert), as imposed by the transitive verb *annay* 'see' and the complementizer *is* 'that'.

N-raising to D also satisfies the case-checking requirement imposed on the genitive NP. When the head D is lexicalized by N, it can check the case of the genitive DP in the [Spec, NP], as in the case of nominative case-checking in verbal clauses.

Like N-raising, postmodification is a characteristic of Berber. In the following section, we will examine the agreement of CSs with possessive pronouns, modifying adjectives, and restrictive relative clauses.

4.   Post-nominal modifiers

4.1   Possessive pronouns

Possessive pronouns in Berber are affixes that agree with the modified noun for person, number, gender, and case, as in (26):

(23) a.   arba-*inu*
           son(-nom)(-m)
           'His son'
     b.   arba-*nsn*
           son(-nom)-their
           'Their son'

The possessive pronoun in (23) spells-out genitive rather than accusative case because it is selected by the head N not V. (See Ennaji 1995, 1997.) The italicised

possessive pronoun is a bare head D that initially appears in [Spec, NP], and then incorporates into the head N under D. Incorporation, which is a case of head-head checking, is imposed by Greed. Being a bound morpheme, the genitive argument must be affixed to N prior to Spell Out for genitive case-checking. Thus, Gen case-checking in Berber applies in a rightward manner irrespective of whether the genitive element is lexical or affixal. (Cf. Santelmann 1993, for a comparison with Swedish, and Makhoukh 1998, for a comparison with Standard Arabic.) Now consider (24):

(24) a. tarbat   afus ns   ibbi.
         girl   hand-her   cut
         'The girl's hand is cut.'
     b. afus (*-ns)   trbat.
         hand-her   the-woman
         'The woman's (*her) hand.'

The ill-formedness of (24b) is due to the fact that the doubling overt DP cannot check its Gen case feature which is already checked off by the possessive pronoun *ns* during its incorporation into the head N under D. However, in (24a) the genitive NP is fronted and is necessarily linked to the resumptive pronoun *ns*; the resumptive pronoun is incorporated into N as in (25) below:

(25)
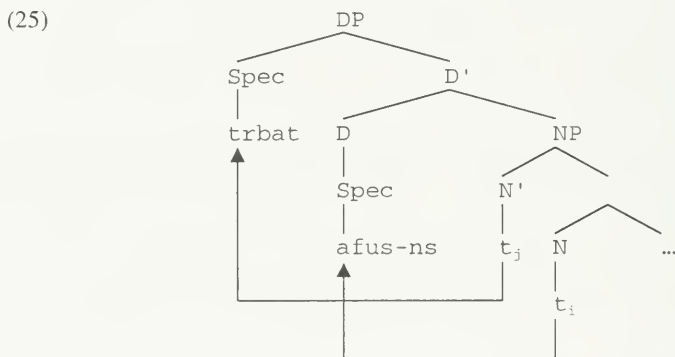
The raising of the genitive argument from [Spec, NP] to [Spec, DP] is an instance of focus, which is reminiscent of left-dislocated subjects. Thus, overt DP-raising satisfies the principle of Greed. The resumptive pronoun attached to the host N is incorporated during its derivation to PF to check off the Gen case. (24b) is ill-formed because the genitive NP is not fronted; as a result, the Gen case feature remains unchecked. (24a) is well-formed because the displaced DP is licensed by the resumptive pronoun under Spec-Head agreement.

    In (24a), the genitive phrase is licensed because it is in Spec-Head agreement with the resumptive pronoun, which is spelled-out on the head N when the genitive NP is fronted. Let us turn to see how agreement is realized in CSs when they are postmodified by attributive adjectives.

4.2 Postmodifying adjectives

Postmodifying adjectives are attributive adjectives that inflect for person, number, gender, case, and (in)definiteness (Def for short). Let us focus on agreement with attributive adjectives, more particularly with Def:

(26) a. tarbat   wryaz   tHa.
         girl   man   nice(-fem)
         'The man's daughter is nice.'
     b. l-kunnaš   wrba   n   ušTTab   n   l-mdrsa
         the-notebook   son   of   the cleaner of   the school
         'The notebook of the son of the school cleaner'
     c. *arba   w šTTab   iɣzzif (as a CS)
         son   cleaner(-gen)   (is) tall

The ungrammaticality of (26c) can be accounted for by the disagreement in the Def feature between the head N and the attributive adjective (Adj). Although it is realized morphologically on the attributive Adj (26a), the Def feature of a head N in CSs is inherited from the genitive argument. The same remark is valid for embedded CS, as in (26b). The Def feature percolates on the Ns in (26) which also take a definite reading. (26a) is represented by (27):

(27) a. [[[Spec   [N…]]]]
         DP D   NP   N'▲
                       Spec-Head agreement
     b. [[N [[tᵢ…]]]]
         DP D   Spec ▲   N'

(28)
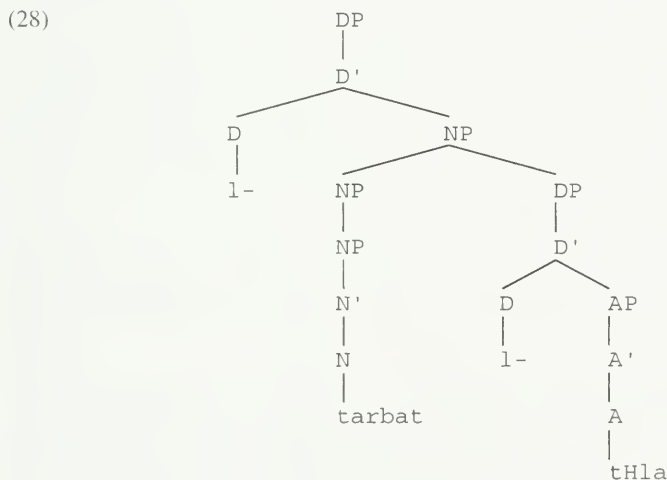
Thus, the modifying Adj agrees with the head N not only in gender, number, and case, but also in Def. The latter feature is inherited from the genitive argument.

The head N acquires the Def feature by Spec-Head agreement between the genitive phrase in [Spec, NP] and N before N-raises to D.

Nonetheless, the schematic structure (27a) illustrates that the head N is in agreement relation with the Adj, not with the Gen DP, which is verifiable from the morphology of these elements. The genitive argument is not involved in agreement because it is not the target of modification.

With regard to (28) above, Det and Adj constitute a noun phrase; unlike predicative Adjs, attributive ones are apparently subjectless. Adjs inherit case (as a covert feature) from the modified nominal.
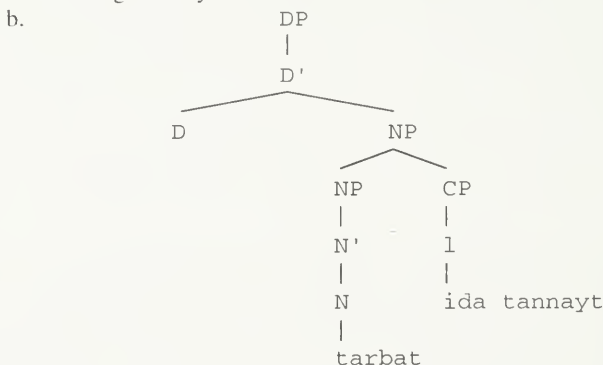
In (28), the adjective *tHla* merges with the noun phrase *tarbat* as both carry the same features of definiteness, gender, number, and case, which are transmitted from the noun through percolation (Radford 1997:158), except definiteness which is transmitted from D.

Now let us look at restrictive relatives as a case of the postmodification of the CS in Berber.

4.3   Restrictive relatives

Attributive Adjs are in fact reduced relative clauses, which entails that they should appear right-adjoined to NP in the same way that restrictive relative clauses do (cf. Demirdache 1989):

(29) a.   tarbat   ida   tannay-t.
            girl   that saw-you
            'The girl that you saw.'

     b.

```
                              DP
                              |
                              D'
                    ┌─────────────────────┐
               D                          NP
                               ┌──────────────────┐
                              NP                  CP
                              |                   |
                              N'                  1
                              |                   |
                              N            ida tannayt
                              |
                           tarbat
```

Consider the following examples:

(30) a.   [l-kas   wšiban]   ida   tusi-t.
            the-glass   old man   that took-you
            'The old man's glass that you took.'

     b.   *ašiban,   l-kas   ns   ida   tusi-t.
            old man   the-glass   of   that took-you

(30a) is well-formed because the CS, i.e., the whole DP, is postmodified, and the restrictive relative adds the Def feature to the CS. However, (30b) is ill-formed because the head N, which is modified by the relative clause, is already postmodified (hence definite) by the resumptive pronoun *ns*. This is supported by the existing parallelism between definite determiners and relative complementizers: Det and C are realized when the genitive DP is definite, and they are absent if the genitive DP is indefinite.

In CSs, the modified DP triggers the N-raising to D, and the absence of the definite article given its content is recoverable from the attributive Adj.

Furthermore, the definite article cannot appear in the landing site of N-raising since the latter is a head position and can host only N for case-checking. N-raising to the higher functional head D is motivated by the strong feature of N. N-raising is necessary to satisfy the principle of Greed and results in the lexicalization of the empty D. This movement also allows for the checking of the genitive case of the genitive argument in [Spec, NP]. The same analysis can be extended to derived nominals. (Cf. Makoukh 1998.)

Thus, Berber has agreement features that also trigger N-raising to D and induce the postmodification of nominals. In modified CSs, the head N case-checks the genitive argument after raising to D; following Chomsky (1993), the head N licenses the agreement and case features of the modifying Adj by means of feature copying. (See also Sigurðsson 1993.)

5.   Conclusion

The derivation of both DP and TP is a case of head movement, V and N to the functional heads T and D, respectively. In Berber, AGR is present in the inflectional structure of TP. AGR in DP constructions has the same function, as in TPs. Given that D is a functional category that has the nominality feature [+N] and the [+Def] feature, D can receive N as a result of head to head movement (Chomsky 1986). This movement is all the more motivated by the Directionality Principle; D includes an abstract AGR that discharges genitive case onto the NP complement.

In Berber, the two alternatives (AGR and N) are in complementary distribution. When N is [+Def], it loses its function as a case-checker and as a licensor of its complement, and the lexical preposition takes up this function. All in all, CSs in Berber involve overt N-raising to D, due to the strong N-feature of the functional head D.

Chomsky's (1993-1995) minimalist model, more precisely case-checking theory, can straightforwardly account for CSs in Berber, which exhibit N-raising to D. This structure is available because of the strong features of D. The Principles of Procrastinate and Greed regulate these mechanisms.

When the genitive NP is left-dislocated at PF for focus reasons, a resumptive pronoun appears on the head N under D for case-checking and for licensing the fronted genitive NP. As a consequence of N-raising, Berber allows postnominal

modification, which can take the form of resumptive pronouns, modifying adjectives, or restrictive relatives.

NOTES

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[1] The Berber variety dealt with in this article is Tamazight, which is spoken in the areas of the Middle Atlas in Morocco.

[2] Mohammad (1988) comes up with the following conclusions: First, there is V movement to I just as there is movement of N to D; second, c-command plays a central role in the binding properties of both structures; third, the fixed word order of the CS, which is dictated by genitive case, imposes strict adjacency, in contrast with nominative case, which allows for a relatively free word order in verbal sentences. Benmamoun (1996) puts forth the hypothesis that VS order in Standard Arabic is due to PF merger of the verb and the postverbal subject to form a single prosodic unit. The same operation is assumed to apply in the derivation of CSs. For him, number is not spelled-out in VSO structures because it is redundant in the presence of a postverbal lexical subject. When the subject is null, PF merger does not apply, hence full agreement is manifested. Similarly, definiteness is not spelled-out in CSs because it is redundant in the presence of a lexical genitive argument.

[3] Chomsky (1993) argues that there is a significant correlation between overt movement and the strength of morphological features. This operation is controlled by the Principle of Greed, which specifies that strong features must be checked off at PF in Spec-Head relations; otherwise, the derivation will crash at this level. However, if the features are to be checked are weak, movement should be delayed until LF. This operation is regulated by the Procrastinate Principle.

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