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Case in Berber

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Abstract
The phenomenon of state alternation in Berber languages has been the subject of much discussion and debate among linguists. This paper investigates Berber state alternation, arguing that state is the realization of Case morphology. Taking into consideration morphological patterns and syntactic distribution, we argue that Berber belongs to a marked nominative system of case. The accusative case is the unmarked or default case, whereas nominative case is morphologically marked (König 2008). Specifically, the Free State aligns with accusative case, while the Construct State aligns with nominative case. The analysis is grounded in Baker's (2015) hybrid dependent case theory, which posits that case assignment follows a hierarchical model: lexical case > dependent case > Agree-based case > unmarked/default case. Within this framework, dependent case assignment in Berber adheres to the negative c-command condition, marking an NP with nominative case if it is the highest NP within its domain. This analysis enhances our understanding of the syntactic distribution of noun state alternations in Berber, highlighting its alignment system as rare within Afroasiatic and African languages.

1. INTRODUCTION

The Berber languages are a group of Afroasiatic languages spoken by the Berber people, who are indigenous to North Africa. The Berber languages are spoken across much of North Africa, from the Nile in the east to the Atlantic in the west and from the Mediterranean in the north to the Niger in the south (Kossmann 1999). The largest populations of speakers of Berber reside in Morocco and Algeria. In Morocco, Berber can be divided into three major dialectical regions: the Rif (Tarifit) in the north; the Mid-Atlas and a portion of the High-Atlas (Tamazight); and the Chleuh domain (Tachelhit/Chilha) in the south/southwest (High-Atlas, Anti-Atlas and Under). In Algeria, the main Berber-speaking region is Kabylia (Kabyle; Taqbaylit dialect). Additional noteworthy Berber-speaking groups include the Chaouias (Chaouia; Tachawit) from the Aures region, as well as the inhabitants of the Mzab region (located in Ghardaia and other Ibadhite cities) (Chaker & Mettouchi 2005).

The Berber languages have a VSO constituent order, although SVO can also be found. The verb corresponds with the subject in terms of phi-features, but it does not show agreement with the object. Berber is a language that highly favours pro-drop for subjects, meaning that they can be omitted (Shlonsky 1987). In addition, direct and indirect objects can also be left out if the appropriate clitic is included in the sentence. Clitic doubling is attested in certain varieties but absent in others (Guerssel 1995). An interesting fact is that nouns alternate between two distinct morphological forms or "states". These two states are referred to as the Free State and the Construct State. The alternation of these two states depends on the noun's grammatical function and the word order of a sentence. While the morphological aspects of state alternation have been studied extensively, its syntactic and semantic functions have been the subject of much discussion and debate among linguists.

Three different approaches emerge from the ongoing research: In some parts of the literature, the states are analysed as the morphological realization of case (Aikhenvald 1990, Guerssel 1992, 1995, Ennaji 2001, König 2008), while others view them as determiners (Achab 2003), or a "previously unrecognized typological category" (Mettouchi & Frajzyngier 2013). However, each of these proposals has its limitations. The paper highlights the limitations of the previous accounts and suggests that the alternative view proposed in this paper provides a more comprehensive explanation for state alternations in Berber.

In this paper, the Free State and Construct State represent the accusative case and marked nominative case, respectively, in a marked nominative system. This categorizes Berber as a language that belongs to a typologically rare alignment system, which is primarily found in Afroasiatic and African languages. The chief emphasis of this analysis is on introducing a detailed explanation on case assignment in Berber and accounting for the bulk of the distribution of Free State and Construct State nouns. The updated dependent case theory as proposed in Baker (2015) is the adopted theoretical framework in this paper. The main hypothesis is that case assignment follows a hierarchy in which lexical case comes before the dependent case, the dependent case comes before the Agree-based case, and the Agree-based case comes before the unmarked/default case. In this framework, **the negative c-command condition** states that a noun phrase (NP) is assigned dependent case—here, the marked nominative—**if no other NP c-commands it within a given domain** (Baker 2015, p. 90). Dependent case assignment in Berber, then, is determined by this structural relation, marking an NP with the marked nominative if it is the highest NP in the domain.

The paper is organized as follows. Section two discusses some of the properties of state alternations and their occurring contexts in the Berber languages in which it is found. Section three reviews case assignment in generative grammar and introduce the theoretical framework adopted in this paper. Section four evaluates and gives a detailed comparison of previous accounts. It proves the existence of some drawbacks based on empirical considerations of the reality of the language. Section five provides an alternative approach to case in Berber.

2. BASICS OF STATE ALTERNATIONS AND PREVIOUS ACCOUNTS

Nouns in Berber appear in two morphological forms, also called states: Free State or Construct State (henceforth FS and CS respectively). This interesting variation in the marking of nominals remain present across all Berber languages, except for certain Berber languages that are traditionally classified in the Eastern Berber group. In these Berber languages, such as Siwi (Egypt), Ghadamsi and Awijilah (Libya), and Djerba (Tunisia) − as well as several

varieties from the Southern group − such as Zenaga (Mauritania), only morphological traces of the alternation remain, mainly in old folk songs or topographic nouns (Brugnatelli 1987, Kossmann 2013).

2.1.State Alternation Basics

2.1.1. Realisation of the two states.

In Berber, nouns are inflected for number, gender, and state. The table in (1) illustrates these declensions with examples from Tashlhiyt Berber:

	FS				CS			
	MS		FM		MS		FM	
	SG	PL	SG	PL	SG	PL	SG	PL
'boy / girl'	afrux	ifrxan	tafruxt	tifrxin	ufrux	ifrxan	tfruxt	tfrxin
'manure/country'	amazir	imazirn	tamazirt	timizar	umazir	imazirn	tmazirt	tmizar
'ox/ cow'	afunas	ifunasn	tafunast	tifunasin	ufunas	ifunasn	tfunast	tfunasin

Table (1): Tashlhiyt (Morocco, Lahrouchi 2013:8)

Much work has been devoted to the morphophonological shape of the alternation. Basset (1945), Penchoen (1973a), and many other scholars argue that there is an underlying root that begins with either a vowel or a consonant. The full noun declension is composed of the root plus the number, gender, and state morphemes. In the same vein, El Moudjahid (1982), Guerssel (1983), Kossmann (2007: 432–433) and Galand (2010: 124–130) and Bendjaballah (2011) present many instances of derivational rules, based on the root type (consonant-initial types, vowel-initial types). In other approaches, Basset (1932), Vycichl (1957), and Brugnatelli (1997) derive the CS from the FS, whereas Laoust 1920) derives the FS from the CS.

The analysis proposed in the present study does not depend in any way on the morpho-phonological derivation of the two states. Therefore, an investigation of their derivation is beyond the scope of the present work.

2.1.2. Distribution of the two states

The distribution of the two states is determined by a number of well-defined syntactic contexts. Below is a list of constructions in which the two states occur. An example illustrates each construction.

The CS form is used when:

1) The noun occurs as a postverbal subject

   a. Tarifit (Morocco, El Hankari 2021:123)
   i-aza (=/jaza/) **u**-mzir ð-a-fðiz-θ.
   3M.SG-break.PERF **CS**-blacksmith F-SG-hammer-F
   'The blacksmith broke the hammer.'

   b. Taqbaylit (Algeria, Mettouchi and Frajzyngier 2013:6)
   tə-mmut t-qʃiʃ-t
   SBJ.3SG.F-die.PFV F-child-**CS**-F.SG
   'The girl died.'

2) The noun occurs as the object of a preposition

a. Tamazight (Morocco, Guerssel 1992:178)
Rwel-x **gher w**jdir
1M.SG.ran toward **CS.**cliff
'I ran toward the cliff.'

b. Taqbaylit (Algeria, Achab 2003:2)
Y-ewwet **s w-**zru
3M.SG.hit with **CS**.stone
He hit with a stone

c. Tarifit (Morocco, El Hankari 2021:123)
ð-qqim **ag- w-**uma-s.
3F.SG-sit.PERF with **CS**-brother-3M.POSS
'She sat with her brother.'

d. Tashlhiyt (Morocco, Lahrouchi 2013:8)
iga tammnt **ʁ uʁ**rum
put: preterit.3MS.SG FS.honey in **CS.**bread
'He put honey in bread'

3) The noun is inside noun phrases; the noun in question generally follows the genitive preposition *n* 'of' and takes the CS form. This includes possessors (a,b), nominal complements (c), as well as dependents of several quantifiers, including numerals (d).

a. Tarifit (Morocco, El Hankari 2021:130)
a-mzzuʁ **n-** ð-**ø**-funas.
SG-ear **of** F-**CS**-cow
'The cow's ear.'

b. Tarifit (Morocco, El Hankari 2021:130)
a-mzzuʁ **u**-funas.
SG-ear **CS**-cow
'The bull's ear.'

c. Ghomarra (Morocco, Mourigh 2015:281)
lqaḍiya **n-** tx**w**raft
case **of** **CS**.story
'The case of the story'

d. Tashlhiyt (Morocco, Lahrouchi 2013:8)
/**sin i**frxan/ → [sijfrxan] / **snat** tfrxin
two **CS.**boy, MS, PL two girl-**CS**, FM, PL
'Two boys' 'two girls'

The FS form therefore appears in all other contexts, mainly when:

4) The noun occurs as preverbal "subject"

a. Taqbaylit (Algeria, Achab 2003:9)
A-rgaz y-ecca a-ghrum
FS.man 3SG.ate FS.bread
"The man ate bread"

5) The noun occurs as object of a verb

a. Tashlhiyt (Morocco, Lahrouchi 2013:9)
iʃʃa **a**ʁrum
eat: preterit 3MS **FS.**bread
'He ate bread'

6) The noun occurs in isolation

a. Taqbaylit (Algeria, Mettouchi and Frajzyngier 2013:5)
a-xxam
FS.SG-house
'house'

Overall, the data presented in this section provides us with a good understanding of state alteration in Berber. The morphophonological and morphosyntactic properties of the states have been extensively described from pan-Berber perspectives (Chaker 1988, Kossmann 2000, Mettouchi 2014), but also for individual languages (Chaker 1983, Ouhalla 1996, Kossmann 1997, Achab 2003, Bendjaballah & Haiden 2005, Mettouchi & Frajzyngier 2013, Lahrouchi 2013, El Hankari 2014, Ben Si Said 2020 to name a few).

2.2.Previous accounts

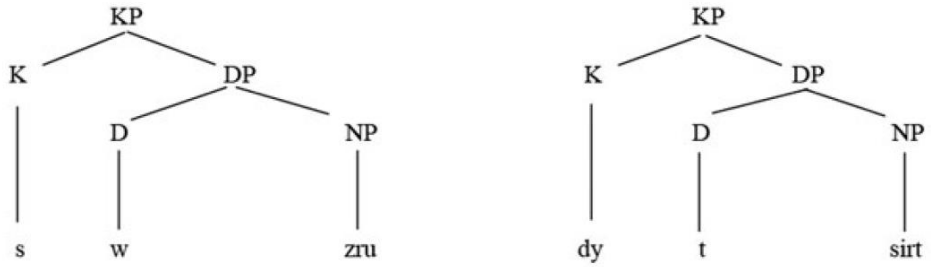
In this section, we review the previously proposed accounts of state alternations in Berber and assess their validity. State alternations have been a topic of interest in Berber linguistics, with scholars proposing various explanations for how they occur. However, each of these proposals has its limitations. We propose an alternative view that takes into account the morphosyntactic properties of Berber and provides a more comprehensive explanation for state alternations in the language.

2.2.1. Guerssel (1992)

The underlying claim which lies at the heart of this approach has to do with prepositions in Tamazight. Guerssel (1992) claims that there are two prepositions in that Berber language which do not mark their DP complement for the CS. These are: *al*'to' and *bla* 'without'. According to him, these functional elements are the genuine prepositions whereas the ones that mark the object DP for CS are claimed to be case markers.

Guerssel (1992: 176) considers that the noun is in CS when it is dominated by a KP (Case Phrase) whose head K is either an overt case marker or empty, without phonological exponent. He proposes that the *w-* which appears in CS for masculine nouns and the *t-* in the feminine are to be considered as determiners, and that they occupy position D in the syntactic structure, as shown by the following representations under (7) repetitions of Guerssel (1992: 177) where only constituents with a phonological exponent are shown.

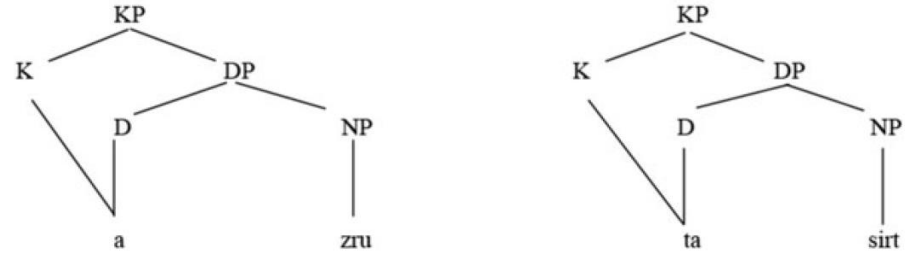
7) a. s wzru 'with the rock' **b**. dy tsirt 'in the mill'



The representations also show that Guerssel (1992) considers the prepositions s/dy to be exponents of the functional projection of the case.

For FS, which presents in the masculine an initial vowel *a* and the absence of the semi-vowel *w*, and in the feminine, a *ta*, Guerssel (1992: 178) proposes that these forms are themselves the expression of the case: [KP a-zru] 'stone' and [KP ta-sirt] 'mill'. In other words, *a* and *ta* in FS are "port-manteau" morphemes which express both the determiner and the case. Guerssel (1992: 188) proposes the syntactic structures under (8).

8) a. azru 'rock' b. tasirt 'mill'



In (8a,b), *a* and *ta* occupy both K and D. This is the reason why, according to Guerssel, D needs no other exponent and is not spelt as *w* in the FS, in contrast with CS.

The problem with Guerssel's accounts is the fact that there is no evidence that different prepositions occupy different structural slots except for the particular marking on nominals. If a preposition does not govern a nominal in CS, then we assume that the preposition is not in D or in K, but in P. The only reason for such an assumption is that the FS vowel is assumed to be in D or K. Moreover, this approach cannot explain why some prepositions are followed by nouns in the CS form and others by nouns in the FS form.

Following El Hankari (2014), the two prepositions which Guerssel regards as genuine prepositions, since they do not govern nominals in CS, are not prepositions. This is mainly because they behave as verbal clause modifiers, and they only occur within a clause with a future tense, as in (9).

9)

a. **bla** ma að- ð-za-ð (=/atzað/)
NEG COMP FUT 2SG-see-2SG
'You don't/there is no need to see him.'

b. qbəl að- ð-za-ð (=/atzað/)
before FUT 2SG-come-2SG
'Before you see him'

c. *qbəl ð-zri-t

before 2SG-go.PERF-2SG
'Before you saw him'

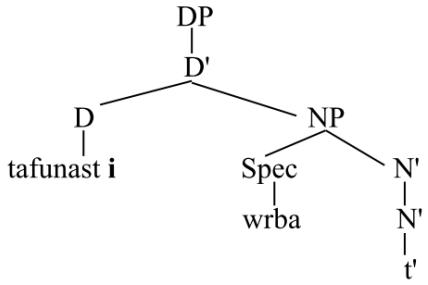
d. ***bla** ma ð-zri-t
without COMP 2SG-see.PERF-2SG (El Hankari 2014:33)

El Hankari concludes that the fixed position of the elements *bla* and *qbəl* in (9a) and (9b), together with their control of the clause tense, is a compelling argument that they are neither adverbs nor prepositions.

2.2.2. Ennaji (2001)

Ennaji (2001) claims that the "construct state", genitive constructions of the type: [DP N (prep) NP], involve overt noun-raising to the Determiner node. Accordingly, he argues that CSs are DPs headed by D. This D contains an AGR that may be overt or covert. The head N raises from within the lexical projection NP to D due to the strong N-feature of the functional head determiner. The genitive complement remains in-situ and the head N assigns Gen case to it as a result. He justifies the non-movement of the genitive complement by the process of nominalisation. This process necessitates the NSO order, as in verbal clauses. His proposal is sketched below in (10):

10)

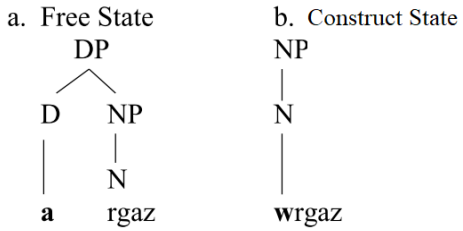


The problem with this analysis is the fact that the CS form in Berber is used for a great many constructions other than the relationship between two nouns, as shown in Section 2.1 of the present study. Ennaji's explanation is thus not general enough.

2.2.3 Achab (2003)

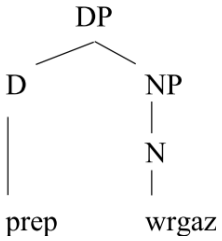
Achab (2003) assumes that FS nouns are DPs that are headed by the initial vowel *a,* which he considers a determiner. According to Achab, the CS form lacks the initial vowel, and as such, it is not a 'full DP', but rather a bare NP. Accordingly, the two forms of the noun 'man', *a*-rgaz and *w*-rgaz, are schematised as follows:

11)



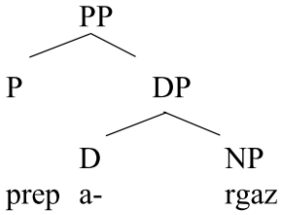
However, it should be noted that nominals in CS do not occur as 'bare' NPs but as complex DPs headed by a preposition. This is represented in the following tree structure:

12)



Achab (2003), just as Guerssel, argues that prepositions which do not occur with nominals in CS are positioned in an independent PP projection selecting DP as their complement.

13)



In brief, Achab (2003) argues that nouns in FS form are DPs whose head D is occupied by the prefixal initial vowel. However, following Makhad (2023a), in/definiteness is contextual in Berber and it is not an inherent feature of DP. There is no overt definite article. Which is to say, the functional head D is not phonetically realized. This is further supported by the fact that demonstratives, quantifiers, possessives do not occur with (in) definite articles. This fact, however, is not relevant to Berber, as demonstrated in the following examples:

14) Tashlhiyt (Morocco, Lahrouchi 2013:15)

a. afrux-ad
boy-FS-this
'This boy'

b. /jan ufrux/ → [jawfrux]
one boy-CS
'One boy'

c. afus-inu
hand-FS-my
'My hand'

This puts Achab's analysis of the initial vowel as a determiner under scrutiny, and prompts us to consider state alternations from a different approach.

2.2.4. Mettouchi and Frajzyngier (2013)

Mettouchi & Frajzyngier (2013) study state alternations in Taqbaylit (Algeria), and claim that the function of the "construct state" is to "provide the specific value for a grammaticalized meaning encoded earlier in the sentence" (Mettouchi & Frajzyngier 2013: 1). They oppose the notion of case as an account for the distribution of "states" in Berber, and propose that "state" is a "previously unrecognized typological category". In respect of this approach, they argue that the FS is the default form of the noun and that it does not carry any function, whereas the CS form has a specific grammaticalized function. Accordingly, certain morphemes, such as

clitics, prepositions, agreement markers and 'relational' items, have grammaticalised functions. These grammaticalised functions are valued by the nominals that follow them. In other words, the CS is assumed to be a means of coding the relationship between a grammaticalised function and its value.

Mettouchi and Frajzyngier's (2013) analysis faces serious challenges when dealing with the relation between prepositions and states. The account claims that some prepositions have a function that depends on the meaning of the preposition. For example, a preposition marking direction carries the directional function, whereas an instrumental preposition is associated with the instrumental function. Nominal complements of prepositions provide value for these grammaticalised functions and are marked by CS. However, not all prepositions carry a function to be valued; mainly those which encode negative semantics, such as *siwa* 'except' or *bla* 'without'. FS mark the nominal complements of such prepositions. It is unclear how a nominal complement could value the grammaticalised function associated with a preposition in the same way that it values the function a pronominal clitic carries. While there is an identity relation between pronominal clitics and the nouns in subject or object position, no such identity relation exists between prepositions and their complements (see Arkadiev 2015).

Furthermore, even if Mettouchi & Frajzyngier had in fact presented a uniform functional account for the "new category", there is still the issue of the typological implications that ensue. According to Mettouchi & Frajzyngier, since none of the notions existing in language typology and current linguistic theory can account for the distribution of states, it is "a new type of morphological coding that has not been recognized in descriptions of individual languages, in theoretical literature, or typology so far" (Mettouchi & Frajzyngier 2013: 28). However, it is not as straightforward to generalize language-specific descriptive categories to crosslinguistic comparative concepts (see Haspelmath 2010). Crosslinguistic comparison of descriptive categories in a number of genetically diverse languages is a prerequisite for postulating crosslinguistic categories (see ibid). Mettouchi & Frajzyngier have provided no such thing. Their whole account is limited strictly to language-specific properties of language-specific inflectional forms of one particular language, *Taqbaylit*, and not even to the whole language family, Berber.

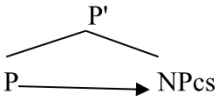
In short, positing a crosslinguistically unattested typological category, solely for the sake of accounting for the "states" in Berber, complicates universal grammar. An approach that can account for the Berber facts without complicating universal grammar is preferable.

2.2.5. El Hankari (2014)

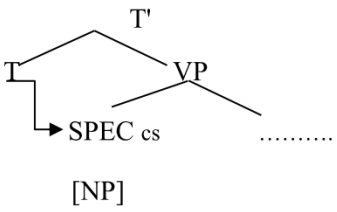
In El Hankari (2014), the CS is a language-specific phenomenon that results from a particular syntactic relation between an NP and a higher c-commanding functional head. In this analysis, CS form is given to nouns c-commanded by prepositional heads P and the tense head T. Accordingly, an NP is marked for CS when it is a post-verbal subject and when it is a complement of a PP projection. Any NP outside these environments takes the unmarked/neutral form, which yields the FS form. The syntactic relation between an NP and the functional head results in the CS marking on the NP, as illustrated in (15a-b).

15)

a. [p' P[NP]]:



b. [T' T[VP SPEC-NP]] :



El hankari (2014:36)

The problem with this approach is the fact that the exact nature of CS form as a language-specific phenomenon is not clear. El Hankari (2014) proposal is rather a mere formalisation of the contexts in which state alternations occur and not really an explanation of the function of the states and why they occur. The CS form in particular has absolutely no function whatsoever, except for being the bare form of a noun, before any derivation such as case or additional of a determiner. In short, the only function in this account is to show a c-command relation.

2.2.6. The proposed account

After Sasse (1984), Aikhenvald (1990), König (2008), Creissels (2009, 2017), and Arkadiev (2015), this paper examines the issue of state alternations in Berber in terms of case following a marked nominative pattern. Based on this approach, state alternations represent a 'poor' (two-term) case system (following Arkadiev's (2015) terminology). This case system contrasts two Case values, one realized as the FS form and the other as the CS form. In a marked nominative system, it is the nominative case rather than the accusative that is morphologically marked, as opposed to prototypical nominative/accusative systems. Accordingly, the FS and CS represent the accusative case and the marked nominative case, respectively (König 2008).

Marked nominative systems are quite rare typologically and seem to be found only in several language families of East Africa (e.g. Cushitic, Nilotic) and in one family in southwestern USA (König 2008, Dimmendaal 2015, Handschuh 2014, Baker 2015). A marked nominative language is one in which the form of the subjects of transitive, A, and intransitive, S, clauses are typically functionally and morphologically marked with the same overt coding. In contrast, the object(s), O, of a transitive clause are functionally and morphologically unmarked (Dixon 1994, König 2008, Handschuh 2014, Baker 2015). Working on Berber, König (2008) concludes that the syntactic distribution of the FS and CS forms matches the distribution of accusative and nominative forms in well-known marked nominative languages. Table (2) below summarises the similarities in distribution between the nominative and the accusative forms in marked nominative languages and Berber states.

	Marked Nominative		Berber States	
	Accusative	Nominative	Free State	Construct State
Unmarked (functionally) form	✔	No	✔	No
Citation form	✔	No	✔	No
S/A in post-verbal position	No	✔	No	✔
S/A in pre-verbal position	✔	No	✔	No
Direct object	✔	No	✔	No
Nominal predicate in copula clauses	✔	No	✔	No
Initial S in copula clauses	✔	-	✔	No
Post-predicate S in copula clauses	-	✔	No	✔
Preposition case	✔	✔	✔	✔

Table 2: Similarities between Marked Nominative Systems and the Berber state alternation.

Analysing state alternation in terms of case in a marked nominative system links it to a known coding system, attested cross-linguistically in many other languages, including several that are genetically related to Berber (Arkadiev 2015). Therefore, it is the most elegant and straightforward from a functional, structural and typological perspective.

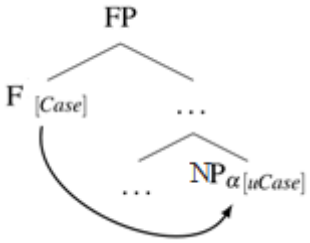
Overall, the paper highlights the limitations of the previous accounts and suggests that the alternative view proposed in this paper provides a more comprehensive explanation for state alternations in Berber. The FS and CS represent the accusative case and marked nominative case, respectively, in a marked nominative system.

3. CASE IN GENERATIVE GRAMMAR

Over recent years, two approaches have been competing with regard to the mechanisms of case assignment. The Agree-based Case model, the standard Chomskyan approach, considers case as a reflection of a relationship between a noun phrase and a given functional head. The other approach, referred to as Dependent Case Theory, regards the case as a reflection of a relationship between two competing noun phrases in a given structural domain. In this section, we review, in brief, these two modalities of Case assignment and then introduce the hybrid dependent case theory of Baker (2015), which forms the theoretical framework adopted in this paper.

In the Agree-based Case model (Chomsky 2000, 2001), Case valuation is achieved when the Agree operation matches an unvalued Case-feature of a nominal, [*u*Case], with the valued Case-feature, [Case], of an appropriate functional head. Granted that a particular functional head *F*, and a nominal α that is the hierarchically closest nominal c-commanded by *F*, the case-value associated with *F* will be valued on α. This is schematized in (16):

16)



Heads [*F*] bearing the valued features are termed *probes*. Those bearing corresponding unvalued features are termed *goals* [α]. When the Agree operation establishes a relation between a probe and a goal, it values each category's uninterpretable features by matching them with interpretable features of the other category. This leads to distinct values for [*u*Case] depending on the identity of *F*. These distinct values are usually realized as distinct morphological case forms. Nominative case is realized under [*u*Case]-valuation with the tense head *T*. Likewise, accusative case is realized under [*u*Case]-valuation with the light head *v*, and genitive Case under [*u*Case]-valuation with possessive *D* (Chomsky 2000, 2001).

Under the Dependent Case theory, on the other hand, the case a nominal receives is subject to the presence of other nominals, *case competitors*, in the same local domain, and the syntactic configuration of these nominals in relation to one another. The best-known version of the Dependent Case theory is that of Marantz (1991) (but see Yip et al. 1987 for an earlier approach which makes many of the same empirical observations). Marantz identifies four distinct categories of case. These distinct categories of case are organized in a hierarchy, which determines the process of case assignment.

3.1.Typology of case in the dependent case model

- Lexically governed case

- Dependent case (accusative and ergative)

- Unmarked case (environment-sensitive)

- Default case

In this hierarchy, the more specific case feature takes priority over the less specific case feature. The hierarchy is disjunctive in that as soon as a nominal finds a case feature, it qualifies for going down the list, it is assigned that feature and leaves the hierarchy. Marantz (1991: 24) offers the disjunctive hierarchy in (18):

3.2.Case disjunctive hierarchy (Marantz 1991)

Lexical Case >> Dependent Case >> Unmarked Case >> Default Case

Case assignment proceeds from left to right in (18) along these lines: (i) Nominals which are c-selected by lexical items that idiosyncratically specify the case of their arguments are assigned the case in question. (ii) The nominals which were not assigned lexical case are considered for the dependent case. The dependent case is assigned to one of the two caseless nominals that are in a c-command relation within a local domain. In an ergative language, the c-commanding nominal is assigned a dependent case. In an accusative language, the c-commanded nominal is assigned a dependent case. These patterns are schematized in (19).

3.3.Realizations of the dependent case

a. *Dependent case downwards*

NP ... NP "ACC" (nominative-accusative alignment)

b. *Dependent case upwards*

"ERG" NP ... NP (ergative-absolutive alignment)

(iii) Nominals which have not received lexical or dependent case in the previous steps will be assigned the unmarked case, which is typically 'nominative' or 'absolutive'. Within the nominal domain, however, the unmarked case is realized as 'genitive'. (iv) The default case is supplied when no other case realization principles are applicable.

The Agree and Dependent Case models of Case assignment, however, have not gone unchallenged. Arguments in opposition to the Agree-based model of Case assignment have the following basic reasoning: The case morphology on nominals in a given construction in a given language does not match the Case value the functional head is thought to supply in those environments. That is to say, there is a mismatch between the Case value attested in an Agree relationship between the nominal in question and the functional head and surface morphology. These mismatches have been examined in numerous works (e.g. Yip et al. 1987; Marantz 1991; Sigurðsson 1991; Falk 1991; Harley 1995; Bittner & Hale 1996a,b; Schütze 1997; McFadden 2004; Preminger 2009, 2011; Baker & Vinokurova 2010).

As for the Dependent Case model, case assignment was argued to take place post-syntactically, on the PF branch (Marantz 1991). This view faces challenges in light of the fact that certain syntactic phenomena (e.g. A-bar movement) occur after dependent case assignment, as is pointed out by a number of authors (Legate 2008, Preminger 2011, Richards 2013). For instance, if an object is assigned the dependent case in its base-position, and then rises up to Spec-TopP or Spec-FocP for topicalization or focalization, then Marantz' (1991) model has the following problem: On the assumption that case assignment takes place at PF after syntax. The fact that movement to the A-bar position takes place in syntax before PF, the object will be higher than the subject at the PF- branch. This would then change the case assignment pattern such that the subject is assigned the dependent accusative case and the object is assigned the unmarked nominative case, contrary to the empirical fact that objects retain their accusative case after A-bar movement.

Baker (2015) argues that the problems faced by both theories can be overcome using the hybrid dependent case model. The basic idea is that these two conceptually distinct approaches to assigning structural case are, in fact, complementary. Building on Marantz (1991), Baker (2015) incorporates both the Agree-based case account and the dependent case theory in one theoretical model. The major claim of this analysis is the hypothesis that the Agree-based Case does take place, but only when the conditions for the dependent case are not met. Baker (2015: 294-295) offers the following hierarchy of case assignment in (20):

(20) Lexical Case > Dependent Case > Agree-Based Case > Unmarked/Default Case

The Agree-based case is valued by way of Agree, as the standard Chomskian view assumes. Baker (2015) formulates the mode of dependent case as the statement in (21), following Marantz's original claim and developing it further with some updated notions.

21) If there are two distinct NPs in the same spell-out domain such that NP_1 c-commands NP_2, then it values the case feature of NP_i as X unless NP_i has already been marked for case.

The case assignment in Marantz's original claim is local to the clause. In contrast, Baker's updated version adopts the notion of spell out domain. The notion of "the same spell out domain" is adopted from Chomsky (2000)'s phase theory, "where the complement of a phase head (C or v) is a spell out domain" (p. 49). The Phase Impenetrability Condition (PIC), stated in (22), is a standardly used locality condition enforced by phases. It specifies that the edge of a phase can still be accessed by operations in the phase immediately above it (Chomsky 2001).

4. PHASE IMPENETRABILITY CONDITION

The domain of phase head H^0 is not accessible to operations at the next highest phase ZP; only H^0 and its edge are accessible to such operations. [Chomsky 2001]

Accordingly, nominals that have unvalued case and are positioned at the edge of a phase engage in case competition in both that phase and the phase directly above it. As a result, the nominal will receive either a dependent or an agree-based case marking in the higher phase. It should also be noted that the specific morphological forms of these cases are dependent on the type of phase. (Yip et al. 1987, Baker and Vinokurova 2010). In other words, each phase type can have a distinct Agree-based case and a distinct dependent case. Baker proposes further to distinguish between "hard phases", which are indeed inaccessible for further syntactic operations, and "soft phases", which are somewhat transparent to (dependent) case assignment. Although the concept of a "soft phase" may appear to deviate from Chomsky's conception of a phase, Baker provides detailed justifications for his assertion, which we will not go into here (but see Baker, 2015 for further reading). These theoretical assumptions are proposed as follows:

22)

- **a.** C and V are phase heads.
- **b.** Their complements (TP, VP) are Spell-Out domains.
- **c.** Spell-Out involves mapping relevant c-command relations onto linear order statements, *case assignments*, and so on.
- **d.** CP is always a ''hard phase'': its complement is invisible for later operations.
- **e.** vP may be a ''hard phase'' or a ''soft phase.'' If it is soft, the contents of its complement do remain visible in the next stage of derivation, but only new c-command relationships are considered at later Spell-Outs.

The notion of c-command plays a central role in the formulation of dependent case assignment, as seen in (21), and it is what determines the case of particular NPs. In ergative languages, if NP_1 c-commands NP_2 in the spell-out domain, then NP_1 obtains ergative case. In accusative languages, on the other hand, if NP_2 is c-commanded by NP_1 in the spell-out domain, then NP_2 obtains accusative case. C-command conditions are positively active in dependent case assignment. Baker (2015) states that the notion of dependent case assignment has a key advantage in that "it handles ergative and accusative languages with equal ease, and with a pleasing symmetry" (p. 51). Furthermore, Baker argues for other possibilities of the c-command relationship that are relevant to the assignment of dependent case. Baker proposes the following rules:

23)

a. Assign NP_1 *marked nominative* if there is no other NP, NP_2, in the domain such that NP_2 c-commands NP_1.

b. Assign NP_1 *marked absolutive* if there is no other NP, NP_2, in the domain such that NP_2 is c-commanded by NP_1.

(24a, b) argue that "an NP gets marked nominative if it is the highest NP in the domain" (p. 90), and "an NP gets marked absolutive if it is the lowest NP in the domain" (p. 90). These are referred to as the negative c-command conditions, given that the condition is formulated in the form of "if there is no other NP."

The motivation behind the proposal of negative c-command conditions is that relatively recent typological literature has identified the so-called marked nominative system (Comrie 2005, König 2009). A marked nominative language is one in which the subjects of transitive, A, and intransitive, S, clauses are typically morphologically marked with the same overt affix. In contrast, the object(s), O, of a transitive clause are morphologically unmarked. Marked nominative is a less common kind of case system that seems to be found only in several language families of East Africa (e.g. Cushitic, Nilotic) and in one family in southwestern USA (König 2008, Dimmendaal 2015, Handschuh 2014, Baker 2015).

In conclusion, this paper adopts the hybrid dependent case theory proposed by Baker (2015) as its main theoretical framework for the analysis of case assignment. This theory combines the best of both the Agree-based Case model and the Dependent Case theory, providing a more comprehensive and accurate account of case assignment in natural languages. While the Agree-based model focuses on the relationship between a noun phrase and a functional head, the Dependent Case theory emphasizes the competition between noun phrases in a given structural domain. The hybrid dependent case theory reconciles these two approaches by considering both the relationship between a noun phrase and a functional head and the competition between noun phrases in the same structural domain as factors in determining case assignment. Overall, the hybrid dependent case theory offers a more nuanced and sophisticated understanding of case assignment in natural languages and provides a fruitful avenue for further research in generative grammar.

5. CASE ASSIGNMENT OF CORE ARGUMENTS IN BERBER

In what follows, we explore how the updated dependent case theory of Baker (2015) can account for the Berber data with reference to Case. The chief emphasis is on introducing a detailed explanation of the case assignment within the adopted theoretical framework. The main hypothesis of this analysis is that case assignment follows a hierarchy in which lexical case comes before the dependent case, the dependent case comes before the Agree-based case, and the Agree-based case comes before the unmarked /default case. Dependent case assignment in Berber is determined by the negative c-command condition, which marks an NP with the marked nominative if it is the highest NP in the domain (Baker 2015, p. 90).

4.1. Case in transitive clause

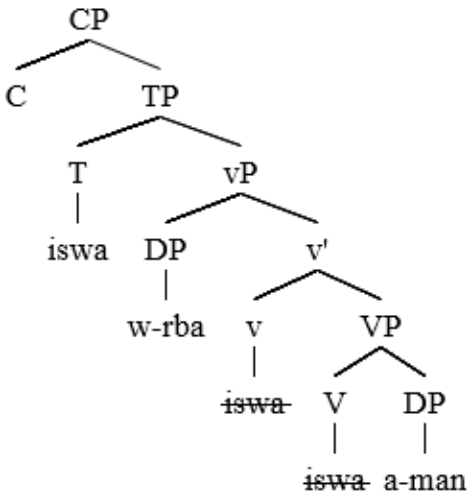
The following is an example of a simple transitive sentence in VSO order:

24) Tamazight (Morocco, Ennaji 2001:56)
iswa **w**-rba **a**-man
drink: preterit 3MS.SG **CS**-boy **FS**.water

″The boy drank water″

The first thing to notice about the VSO order is the fact that it is the unmarked order in Berber. The derivation of the simple transitive sentence (25) proceeds along the lines of the theoretical framework adopted in this thesis. This is shown in (26):

25)



In (26), the DP "*a-man*" is merged into the structure as the complement of the lexical verb "*iswa*", and the VP is projected. The light verb *v* is then merged into the structure with the external argument "*w-rba*" merged in the specifier position of vP. This puts the external argument "*w-rba*" in a negative c-command relation with the complement DP "*a-man*". In contrast, the complement DP "*a-man*" is in the c-commanding domain of the functional head v. Given that vP is a phase, its domain VP is spelt out. At the spell out, the negative c-command condition applies and the external argument "*w-rba*" is assigned the dependent marked nominative case. As for the complement DP "*a-man*", it receives the structural accusative case via Agree with *v*. The functional head T is now merged into the structure, and the verb raises to it, which results in the VSO order. The phasal head C is now merged, and its TP domain is spelt out at this point.

All in all, this example of a simple transitive sentence in VSO order provides insights into the case assignment in Berber within the theoretical framework adopted in the thesis. The external argument is assigned dependent marked nominative case due to the negative c-command condition. In contrast, the complement DP receives the structural accusative case through Agree with v. The addition of the functional heads T and C leads to the VSO order.

4.2. Case in SVO

The following is an example of a simple transitive sentence in SVO order:

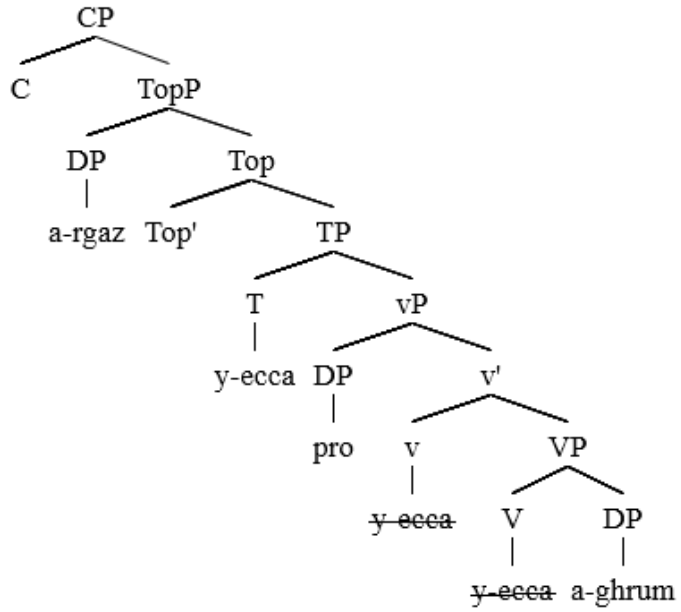
26) Taqbaylit (Algeria, Achab 2003:9)
a-rgaz y-ecca **a**-ghrum
FS.man 3SG.ate **FS**.bread
"The man ate bread"

Mettouchi (2005) presents convincing arguments that the preverbal position in Berber is that of the topic. The topic "a-rgaz" in (27) is co-indexed with the subject agreement morpheme *y,*

showing up on the verb. Achab (2003) argues that the DP "*a-rgaz*" cannot be base-generated VP-internally. A null subject pro occupies the external argument. Accordingly, the only remaining possibility for the DP "*a-rgaz*" is to be base-generated in the surface topic position, under spec, TP or TopP.

Guerssel (1987), Shlonsky (1987) and Ouhalla (1991) identified the topic position, such as the one in (27), as [Spec, TP]. However, if we have to restrict the role of [spec, TNS] to EPP satisfaction, this position will not be projected since the subject agreement morpheme y will take this role, subsequent to its incorporation onto the verb (see Alexiadou & Anagnostopoulou 1999). In view of these considerations, we will assume that the subject topic in (27) is base-generated in [spec, TopP] as illustrated in the structure below:

27)



The derivation of (28) proceeds as follows: the lexical verb "*y-ecca"* merges with the DP "*a-ghrum*" in its complement position. The resulted VP projection is then merged with the light verb. The light verb *v* merges then with the null subject *pro* in the specifier position of vP. This puts the external argument *pro* in a negative c-command relation with the complement DP "*a-ghrum*". In contrast, the complement DP "*a-ghrum*" is in the c-commanding domain of the functional head *v*. Given that vP is a phase, its domain VP is spelt out. At the spell out, the negative c-command condition applies, and the null subject *pro* is assigned the dependent marked nominative case. As for the complement DP "*a-ghrum*", it receives the structural accusative case via Agree with *v*. The functional head T is now merged into the structure, and the verb raises to it. TP is then merged with the head Top to form the topic phrase (TopP), with the topic "*a-rgaz*" base-generated in [spec, TopP], thus generating a convergent SVO structure in the language. The phasal head C is now merged, and the second Spell-Out takes place. The topic "*a-rgaz*" is not considered for case in this domain, as it is not engaged in a c-command relation with any other DP for the purpose of case assignment, and is not in the c-commanding domain of any functional head. Instead, it is assigned the default FS form.

Related to this, all preverbal nominals invariably appear in the FS form regardless of their grammatical relation or semantic role. It must be noted that this is an instance of the "no case before the verb" constraint, which is well documented in a number of African languages (see König 2008: 240 – 273), including those that are very different from Berber in terms of case marking systems.

4.3. Case in an intransitive clause

The common distinguishing characteristics of intransitive verbs are that they do not have an overt complement. As part of their selectional properties and subcategorisation, they are usually labelled as mono-argument verbs or one-place predicates (Felser and Wanner, 2001). Perlmutter (1978)'s seminal work, the Unaccusativity Hypothesis (UH), has demonstrated that intransitive verbs fall into two different categories considering their syntactic behaviour, i.e. unergatives and unaccusatives.

Each type is linked to a unique syntactic structure. Unergative verbs feature Agent arguments. For example, in English, the verb *resign*, as in "*he resigned yesterday*", is an unergative verb in that it takes a base-generated subject that receives an agent-like theta role. In contrast, Unaccusatives have Patient/Theme arguments. In "*The Window Broke*", for instance, the subject of *the window* receives a patient-like theta role. This is due to the fact that the act (breaking) can be seen as something that occurred to the subject, rather than being caused by it. According to this hypothesis, knowing the thematic roles of a specific verb enables us to predict the syntactic configuration in which the verb can appear. In essence, a sentence is categorized as unergative, unaccusative or transitive depending on how the thematic roles of the verb are expressed.

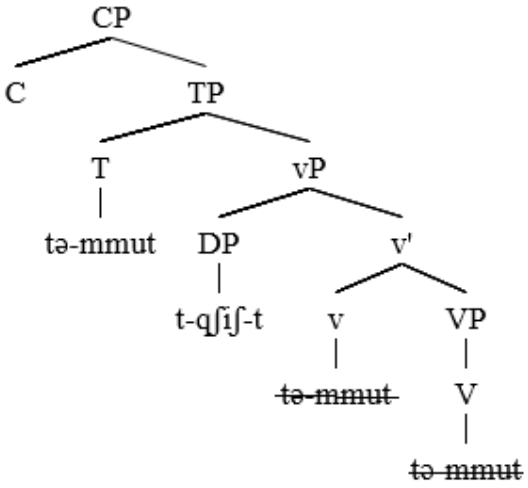
4.3.1. Unergative

Semantically, unergative verbs select only one argument to which they assign to an agent-like theta role, as illustrated in the example (29):

28) Taqbaylit (Algeria, Mettouchi and Frajzyngier 2013:6)
tə-mmut t-qʃiʃ-t
SBJ.3SG.F-die.PFV F-child-**CS**-F.SG
'The girl died.'

In terms of structure, this argument is initially merged in the Specifier position of the vP. The derivation of the unergative sentence in (29) proceeds as follow:

29)



In (30), the derivation begins with the verb *"tə-mmut"* merging with the light v. This in turn merges with the DP *l-wəld* "the boy" to form the vP "*t-qʃiʃ-t tə-mmut"*. No DP is considered for the case in this domain, as the external argument is not engaged in a c-command relation with any other DP for the purpose of case assignment, and is not in the c-commanding domain of any functional head.

In the second phase of derivation, T merges with the vP to form TP, and involves the movement of the complex v-V to T. This movement is motivated by the +V feature on T. The second phase is completed with the merger of TP with the null declarative complementiser C to form CP. The complex C-T probes down for a matching goal in their domain and value the marked nominative Case feature on the DP "*t-qʃiʃ-t*".

4.3.2 Unaccusative

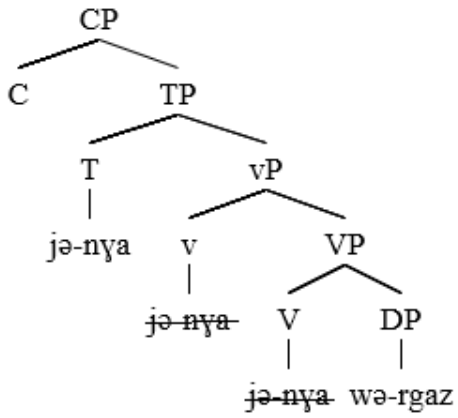
The second type of a simple intransitive sentence is the type known as an unaccusative sentence. An example of an unaccusative sentence is given in (31):

30) Taqbaylit (Algeria, Chaker 1988: 688)
jə-nɣa **wə**-rgaz
SBG.3SG.MS-kill.PFV **CS**-man
'A man killed'

The most important aspect of unaccusative verb constructions, in minimalism, has been the inability of its phase head v to value Case on nominals. According to Chomsky (2001:12), passives and unaccusative constructions do not have a full argument structure, lacking an external argument. Hence, they are considered as weak phases. In a weak phase, the principle of phase impenetrability does not apply, and so the DPs inside this phase are still accessible to the higher phase. If, on the other hand, this phase is a strong phase, then the DPs inside this phase are inaccessible to the higher phase.

The derivation of the unaccusative sentence in (31) is schematised as follow:

31)



The first phase begins with the merge of an internal argument '*wə-rgaz'* and the verb "*jə-nɣa"*, forming a VP. Then a light verb v is merged with the VP, forming a vP. With the completion of the first phase, the internal argument is expected to be valued the accusative Case feature, since it is in the domain of the phase head v. However, since the vP does not form a strong phase in unaccusative constructions, the derivation proceeds without Spell-Out. Then T is merged with the vP, and the verb is moved from v to T. The strong CP phase is completed with the merger of a complementizer C. The internal argument '*wə-rgaz'* is the only DP in the structure, and as such dependent case does not apply. Now the complex C-T probes down for an eligible DP and values the marked nominative Case feature on the internal argument "*wə-rgaz"*.

In brief, unergative and unaccusative verbs are classified as mono-argument verbs, which implies that the conditions for dependent case are not fulfilled as there is no competition between two nominals for case. In both types of constructions, the single argument receives the marked nominative case through Agree with T. The marked nominative case on the external argument of unergative verbs is a direct outcome of the complex C-T probing down to find a matching goal in its domain. Conversely, in unaccusative constructions, the internal argument is expected to receive the accusative case feature since it is within the v-phase head's domain. Nevertheless, as the vP does not create a strong phase, the derivation proceeds without Spell-Out. The complex C-T then probes down for a suitable DP and assigns the marked nominative case feature to the internal argument.

4.4. Case in a ditransitive clause

Ditransitive verbs may either appear with two DPs, in what is called a double object construction, or with one DP and a PP, in which case the structure is referred to in the literature as the prepositional dative construction. In Berber, ditransitive clauses, where the internal arguments are lexical, are restricted to the prepositional dative constructions. The indirect object is always selected by the dative preposition *i-* 'to' and follows the object, as in (33a). The reverse order is also allowed, as in (33b). This option was also pointed out by Ouali (2011) from Tamazight.

32)

a. Tarifit (Morocco, Elouazizi 2005: 4)
i-wʃa Muħand lktab **i w**-rba
3M.S-give.PER Muhand.SUB book.OBJ to CS.boy

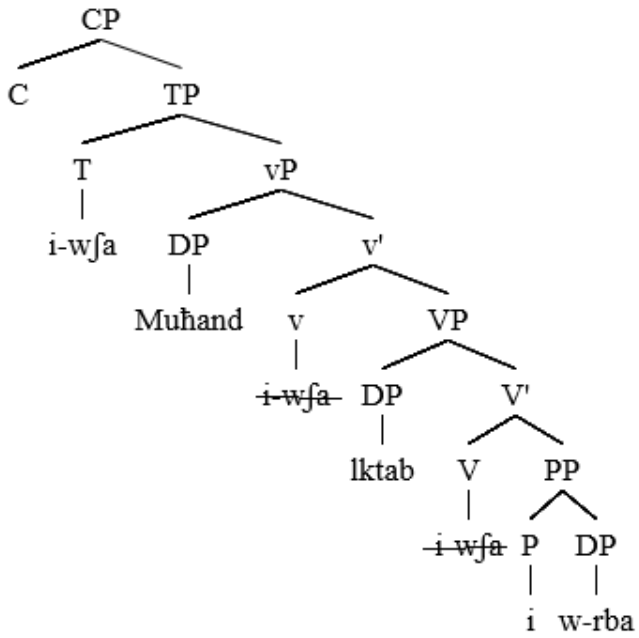
"Muhand gave the book to the boy."

b. Tamazight (Morocco, Ouali 2011:34)

da-(as) wshəx i-məryəm ləcθab
will-(her) give.IMP.ls to Miriam book
"I will give her the book to Miriam"

The derivation of (33a) proceeds as follows:

33)



In (34), the derivation begins with the merger of the complement DP "*w-rba*" with the head P "i-", and PP is projected. In this respect, the DP inside the PP domain is not considered for the assignment of structural dependent case. I claim that this is due to the fact that PPs are phases in the sense of Baker (2015: 81). Given that PP is a phase, its domain is spelled out. At the spell out, the conditions for the assignment of structural dependent case are not met, since there is no other DP to partake in case competition. Instead, the complement DP "*w-rba*", receives the structural marked nominative case via Agree with P (more on prepositions in section 5.5). The PP "*i w-rba*" is then merged into the structure as the complement of the lexical verb "*i-wʃa*", and VP is projected. The theme argument "*lktab*" merges with the verbal projection VP '*lktab i-wʃa i w-rba*'. The light verb v is then merged into the structure with the external argument "*Muħand*" merged in the specifier position of vP. This puts the external argument "*Muħand*" in a negative c-command relation with the complement DP "*lktab*", whereas the complement DP "*lktab*" is in the c-commanding domain of the functional head v. Given that vP is a phase, its domain VP is spelled out. At the spell out, the negative c-command condition applies and the external argument "*Muħand*" is assigned the dependent marked nominative case. As for the complement DP "*lktab*", it receives the structural accusative case via Agree with v. The functional head T is now merged into the structure and the verb raises to it, which results in the VSO order. The phasal head C is now merged, and its TP domain is spelled out at this point.

To bring to a close, in Berber's prepositional dative constructions, the indirect object is always selected by the dative preposition "i-". This structure is a phase, which affects the assignment of structural dependent case. The complement DP inside the PP domain does not partake in case competition and instead receives the structural marked nominative case via Agree with P. The direct object is valued in the accusative case via Agree with the light verb "v".

4.5 Prepositions

All prepositions in Berber mark the NP they select for CS. So, in any PP where the noun is governed by a P-head, that noun must be in CS (35a-d).

34)

a. Tamazight (Morocco, Guerssel 1992:178)
rwel-x **gher w**jdir
1M.SG.ran toward **CS.**cliff
'I ran toward the cliff.'

b. Taqbaylit (Algeria, Achab 2003:2)
y-ewwet **s w-**zru
3M.SG.hit with **CS**.stone
He hit with a stone

c. Tarifit (Morocco, El Hankari 2021:123)
ð-qqim **ag- w-**uma-s.
3F.SG-sit.PERF with **CS**-brother-3M.POSS
'She sat with her brother.'

d. Tashlhiyt (Morocco, Lahrouchi 2013:8)
iga tammnt **ʁ uʁ**rum
put: preterit.3MS.SG FS.honey in **CS.**bread
'He put honey in bread'

According to Guerssel (1992), however, Tamazight is an exception. He claims that there are two prepositions in Tamazight that do not mark their complements for CS. Consider the following examples:

36) Tamazight (Morocco. Guerssel 1992:178)

a. qqim-x **al** t**a**mdditt
stayed-I **until FS.**evening
'I stayed until the evening'

b. swi-x asfar **bla** t**a**ghenjayt
drank-I medicine **without FS**.spoon
'I drank the medicine without a spoon.'

This claim leads him to argue that these elements are the genuine prepositions, whereas the ones that mark their NP for CS are Case markers. Following El Hankari (2014), however, we argue that the fixed position of the elements in (36a) and (36b) and their control of the clause tense, as discussed in section (4.1), is a solid argument that they are neither adverbs nor prepositions.

With this, we conclude that all prepositions in Berber mark the DP they select for CS. If this claim is right, this will imply that the complement DP of PP is marked for nominative case. At first, it may not be clear how this could be possible and why the complement DP of PP should bear such marking. Complements of prepositions are usually expected to bear the objective case rather than the nominative case. However, following Arkadiev (2015), we argue that this does not constitute a challenge to the Case analysis of states. In various languages, it is well attested that different adpositions assign different case values to their complements. For example, in Lithuanian, the ablative preposition *iš* 'from, out of' assigns the genitive case (37a), whereas the directional adposition *į* 'into' assigns the accusative case (37b):

37)

a. ei-ti iš **kambari-o**
go-INF from room-GEN.SG
'to go out of the room'

b. ei-ti į **kambar- į**
go-INF in room-ACC.SG
'to go into the room'. (Arkadiev, 2015: 99)

Indeed, these kinds of situations are well documented in languages with just two cases, one of which, Nias (Western Malayo-Polynesian, Austronesian; Sumatra), is formally unmarked as well (Brown 2001). In (38a), the instrumental preposition *faoma* assigns the "unmutated" form ("absolutive case") on its complement. In (38b), the locative preposition *ba* assigns the so-called "mutated" form ("oblique case") on its complement.

38)

a. u-taba nagole faoma **balatu**.
1SG.RLS-cut up meat.OBL with knife.ABS
'I cut the meat with a knife. ' (Brown 2001: 361)

b. so ndro ba **mbaßa-nia**.
exist blood.OBL on face.OBL-3SG.POSS
'He has blood on his face. ' (Brown 2001: 351)

Furthermore, in some languages, the same adposition assign different case values on their complements based on the contextual meaning of the adposition (see, e.g., Lestrade 2006 for a typological survey).

In view of this, we argue that the case feature on DP complements of prepositions in Berber can be accounted for within the scope of case government, and should be taken at face value as such. Based on the empirical facts from Berber, the case assigned by prepositions in Berber is the marked nominative, which is realized morphologically as CS form.

4.6 Genitive constructions

Possessive relations can be expressed through two types of syntactic structures. In one type, the "possessed" and the "possessor" are juxtaposed, very much as in English examples like "Mary's car". This is called the synthetic genitive, also known traditionally as the construct state (cf. Bentolila 1991; Boucherit 1997; Eksell Harning 1980). The second type of genitive constructions is called the analytic genitive. Analytic genitive uses a preposition to relate the

"possessed" with the "possessor", much like the English "of" in examples like "the car of Mary".

Many different semantic relations can be expressed with these two constructions, such as possession, material composition, and a variety of thematic relations. In Berber, genitive constructions are always analytical. The presence of a preposition preceding the possessor form is obligatory. Consider the following examples:

39) Tamazight (Morocco, Ennaji 2001:55)
tasarut **n-** tHanut
key **of** **CS**.shop
"The key of the shop"

The proclitic preposition *n* "of" is a pure possessor element and it always intermediates the possessor and possessee. Genitive constructions with no overt proclitic preposition *n* are also possible. Consider the example in (40):

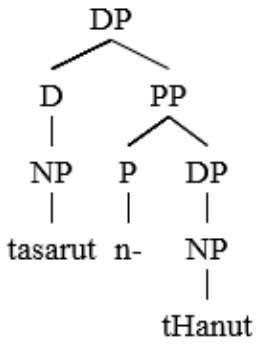
40) Tarifit (Morocco, El Hankari 2021:130)
a-mzzuʁ **u**-funas.
SG-ear **CS**-cow
'The bull's ear.'

However, as pointed out by Makhad (2023a), the deletion of the preposition n- 'of' in (40) is due to an assimilation process which vocalises it with the following vowel. Evidence that the preposition is present in the syntax comes from the fact that the same element reappears when the noun is feminine or begins with a consonant, as in (41):

41) Tarifit (Morocco, El Hankari 2021:130)
a-mzzuʁ **n-** ð-**ø**-funas.
SG-ear **of** F-**CS**-cow
'The cow's ear.'

The proclitic preposition *n* "of", just like other prepositions in Berber, is what is responsible for the CS form on the DP complement. The derivation of (39) proceeds as follow:

42)



In (42), the derivation begins with the merger of the complement DP "*tHanut*" with the head P "n-", and PP is projected. Given that PP is a phase, its domain is spelled out. At the spell out, the conditions for the assignment of structural dependent case are not met, since there is no

other DP to partake in case competition. Instead, the complement DP "*tHanut*", receives the structural marked nominative case via Agree with P. The whole PP merges with "*tasarut*" and the second DP is established. The DP "*tasarut*" is not engaged in a c-command relation with any other DP for the purpose of case assignment, and is not in the c-commanding domain of any functional head. Instead, it is assigned the default FS form.

Overall, it can be concluded that in Berber's genitive constructions, the proclitic preposition n "of" is the element responsible for the marked nominative case form on the DP complement. The absence of the preposition in some instances is attributed to an assimilation process.

4.7 Object clitic-doubling constructions

As many languages with pronominal clitics, Berber also allows clitic-doubling constructions. That is constructions in which a clitic co-occurs with a co-indexed lexical DP (Sportiche, 1996) fulfilling the same lexical role. Consider the following example:

43) Taqbaylit (Algeria, Fahloune 2020:2)
y-ečča**=t** **w**qcic **w**ɣrum-nni.
3MS.S-eat.PERF=**3MS.CL CS**.boy **CS.**bread-DEM
'The boy ate it, the bread.'

In (43), ***=t*** is the object clitic and cross-references the third person masculine singular direct object ***wɣrum-nni*** 'the bread'. In these constructions, the object argument obligatorily surfaces in the CS/marked nominative if doubled or cross-referenced by an accusative pronominal clitic on the verb or the functional head directly preceding the verb (Bendjaballah & Haiden 2005, Achab 2006, Guerssel 1995). While an accusative pronominal clitic can occur without a corresponding object, an object in the CS form cannot occur without a clitic. These properties are shown in the following examples. In (44a), the object argument **a**ɣrum-nni 'bread' surfaces in the FS form, despite the presence on the verb of the accusative clitic =t, rendering the sentence ungrammatical. The example in (44b) is also ungrammatical because the object argument surfaces in CS despite not being cross-referenced by a clitic on the verb. Finally, (44c) shows that a clitic can cross-reference an object argument not overtly realised.

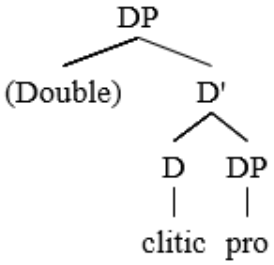
44)
a. *y-ečča**=t** **w**qcic **a**ɣrum-nni.
3MS.S-eat.PERF-**3MS.CL CS**.boy **FS.**bread-DEM
'The boy ate it, the bread.'
b. *y-ečča**-ø** **w**qcic **w**ɣrum-nni.
3MS.S-eat.PERF **CS**.boy **CS.**bread-DEM
'The boy ate it, the bread.'
c. y-ečča**-t** **w**qcic
3MS.S-eat.PERF-**3MS.CL CS**.boy
'The boy ate it.'

The CS form on the doubled object in these constructions has been used as an argument against a case analysis of the state alternations in a number of sources from the Berber literature (Galand 1969, Bendjaballah & Haiden 2005, Mettouchi & Frajzyngier 2013 amongst others). One issue raised by these sources is the fact that, in such contexts, objects end up being marked in the same way as subjects; which is counterintuitive to our understanding of Case. Another problem raised is the fact that the co-occurrence of accusative clitics with nominative object

arguments presents an unclear method for marking the object, as there are no nominative case markers that probe the object. However, the analysis presented in this work suggests that the issues previously mentioned are not problematic for the case analysis. Instead, they actually provide strong evidence in favour of it.

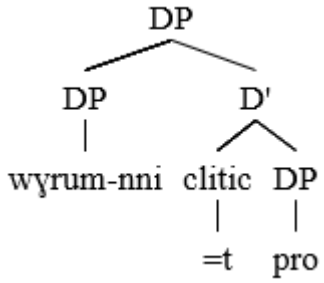
According to Uriagereka (1995), the clitic and the doubled DP enter the derivation together in a Big DP configuration. The doubled DP is base generated in the specifier position of the big DP, as in (45) (Torrego, 1995; Uriagereka, 1995, 2005), the clitic pronoun functions as the head of the big DP, which at a later stage moves up to its spell-out position, and lastly a null pro as the complement.

45)



Thus, the doubled DP ***wɣrum-nni*** in (43) is merged as a specifier in the complex DP consisting of the clitic =*t* as head and a null complement. Following the framework adopted in this thesis, the object **w**ɣrum-nni is in a negative c-command relation with the clitic =t. At the spell out, the negative c-command condition applies and the doubled object DP **w**ɣrum-nni is assigned the dependent marked nominative case. As for the clitic =t, it receives the structural accusative case via Agree with v. The clitic and the doubled object are separated by subsequent movement of the clitic. This is squematized in (46) below:

46)



All in all, the issue of the CS form on the doubled object has been a long-standing problem for proponents of a case analysis of Berber state alternations. Previous analyses have failed to provide an adequate account for this phenomenon, which has been viewed as evidence against a case analysis. However, this paper has argued that these issues do not disprove the case analysis, but rather provide evidence in favour of it. By considering the syntactic and morphological properties of Berber object clitic-doubling constructions, we have shown that the CS form on the doubled object is not an obstacle for the case analysis. Rather, it can be explained as a result of the negative c-command relation between the clitic and the doubled

object, which triggers the dependent marked nominative case on the object. Therefore, the CS form on the doubled object actually supports the case analysis of Berber state alternations.

6. CONCLUSION

This paper examined the issue of state alternations in Berber in terms of case, following a marked nominative pattern. Based on this approach, state alternations represent a 'poor' case system that contrasts two Case values—one realized as the Free State (FS) and the other as the Construct State (CS). Accordingly, FS and CS represent the accusative case and the marked nominative case, respectively. The marked nominative analysis is argued to be the most elegant and typologically grounded explanation, aligning Berber with a rare but attested alignment system found in some Afroasiatic and East African languages.

Additionally, the paper adopted Baker's (2015) hybrid dependent case theory, which posits that case assignment follows a hierarchy of mechanisms: lexical case > dependent case > Agree-based case > default case. Crucially, dependent case assignment in Berber is governed by the negative c-command condition, which assigns the marked nominative to the highest NP in the domain.

This framework successfully resolves two major issues left unaccounted for by previous analyses. First, it explains the **clitic-doubling puzzle**, where doubled objects appear in CS form, by showing that the syntactic configuration between the clitic and the doubled NP satisfies the condition for dependent case. Second, it offers a **unified account of CS distribution** across various syntactic environments—postverbal subjects, complements of prepositions, possessive constructions, and clitic-doubling—by consistently treating CS as a morphological realization of marked nominative case.

To bring to a close, this paper provides a more comprehensive and theoretically grounded account of the syntactic distribution of Berber noun states, reinforcing the classification of Berber as a marked nominative language and offering a model that addresses long-standing descriptive and theoretical challenges in the field.

REFERENCES

Achab, K. (2003). Alternation of state in Berber. In J. Lecarme (Ed.), *Research in Afroasiatic Grammar II* (pp. 1-20). Amsterdam: John Benjamins.

Achab, K. (2006). *Internal structure of verb meaning: A study of verbs of (change of) state in Tamazight (Berber)*. [Unpublished doctoral dissertation]. University of Ottawa, Canada.

Aikhenvald, A. Y. (1990). On Berber cases in the light of Afroasiatic languages. In H. G. Mukarovsky (Ed.), *Proceedings of the 5th International Hamito-Semitic Congress, Vol. 1: Hamito-Semitic, Berber, Chadic* (pp. 113-122). Wien: Afro-Pub.

Alexiadou, A., & Anagnostopoulou, E. (1999). EPP without Spec, IP. In D. Adger, S. Pintzuk, B. Plunkett, & G. Tsoulas (Eds.), *Specifiers: Minimalist Approaches* (pp. 93-109). Oxford University Press.

Arkadiev, P. (2015). The Berber "state" distinction: Dependent marking after all? A commentary on Mettouchi & Frajzyngier (2013). *Linguistic Typology, 19*(1), 87-110.

Baker, M. C. (2015). *Case: Its principles and its parameters*. Cambridge: Cambridge University Press.

Baker, M. C., & Vinokurova, N. (2010). Two modalities of case assignment: Case in Sakha. *Natural Language & Linguistic Theory, 28*(3), 593-642.

Basset, A. (1932). Note sur l'état d'annexion en berbère. *Bulletin de la Société de Linguistique de Paris, 33*(2), 173-174.

Basset, A. (1945). Sur la voyelle initiale en berbère. *Revue Africaine, 402-403*, 82-88.

Ben Si Said, S. (2020). The initial vowel of nouns and the construct state in Kabyle (Berber). *Canadian Journal of Linguistics - Revue Canadienne de Linguistique, 65*, 155-180. Cambridge: Cambridge University Press.

Bendjaballah, S. (2011). Note sur les noms à voyelle initiale stable en kabyle. In A. Mettouchi (Ed.), *Parcours berbères: Mélanges offerts à Paulette Galand-Pernet et Lionel Galand pour leur 90e anniversaire* (pp. 417-434). Köln: Köppe.

Bendjaballah, S., & Haiden, M. (2005). The Grammar of prepositions in Berber. Retrieved from https://ling.auf.net/lingbuzz/000261/

Bentolila, F. (1991). La possession en berbère. *Modèles Linguistiques, 13*, 25-30.

Bittner, M., & Hale, K. (1996). Ergativity: Toward a theory of a heterogeneous class. *Linguistic Inquiry, 27*(3), 531-604.

Bittner, M., & Hale, K. (1996). The structural determination of case and agreement. *Linguistic Inquiry, 27*(1), 1-68.

Boucherit, A. (1997). L'expression du rapport de dépendence. Constructions synthétique et analytique en arabe algérois. *Afroasiatica Neapolitana, 6*, 63-67.

Brown, L. (2001). *A grammar of Nias Selatan* (Doctoral dissertation). University of Sydney, Sydney. Retrieved from http://hdl.handle.net/2123/12669

Brugnatelli, V. (1987). Deux notes sur l'état d'annexion en berbère. In H. Jungraithmayr & W. W. Müller (Eds.), *Proceedings of the 4th International Hamito-Semitic Congress, Amsterdam-Philadelphia* (pp. 349-359).

Brugnatelli, V. (1997). L'état d'annexion en diachronie. In A. Bausi & M. Tosco (Eds.), *Afroasiatica Neapolitana: Papers from the 8th Italian Meeting Meeting of Afroasiatic (Hamito-Semitic) Linguistics* (pp. 139-150). Napoli: Istituto Universitario Orientale.

Chaker, S. (1983). *Un parler berbère d'Algérie (Kabylie) : syntaxe* (Doctoral dissertation). Publications Université de Provence; Diffusion J. Lafitte.

Chaker, S. (1988). Annexion. In G. Camps (Ed.), *Encyclopédie berbère*, Vol. 5 (pp. 686-695). Aix-en-Provence: Edisud.

Chaker, S., & Mettouchi, A. (2005). The Berber language. In K. Brown (Ed. in Chief), S. Ogilvie (Ed.), *Encyclopedia of Language and Linguistics* (2nd ed., Vol. 1, Languages of the World section). Elsevier. Retrieved from

https://www.sciencedirect.com/referencework/9780080448541/encyclopedia-of-language-and-linguistics

Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels, & J. Uriagereka (Eds.), *Step by step*. Cambridge, MA: MIT Press.

Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (Ed.), *Ken Hale: A life in language*. Cambridge, MA: MIT Press.

Comrie, B. (2005). Alignment of case marking of full noun phrases. In M. Haspelmath, M. Dryer, D. Gil, & B. Comrie (Eds.), *The world atlas of language structures* (pp. 398-403). Oxford University Press.

Creissels, D. (2009). Construct forms of nouns in African languages. In P. K. Austin, O. Bond, M. Charette, D. Nathan, & P. Sells (Eds.), *Proceedings of Conference on Language Documentation & Linguistic Theory 2* (pp. 73-82). SOAS, London, November 13-14, 2009.

Creissels, D. (2017, September). Construct forms of nouns in typological perspective. Paper presented at the 50th annual meeting of the Societas Linguistica Europaea, Zurich University, Zurich.

Dimmendaal, G. J. (2015). *The leopard's spots: Essays on language cognition and culture*. Brill. Retrieved October 7, 2022, from https://doi.org/10.1163/9789004224148

Dixon, R. M. W. (1994). *Ergativity*. Cambridge University Press.

Eksell Harning, K. (1980). *The analytic genitive in modern Arabic dialects*. Göteborg: Acta.

El Hankari, A. (2014). The Construct State in Tarifit Berber. *Lingua, 148*, 28-52.

El Hankari, A. (2021). *Aspects of the morphosyntax of Tarifit Berber*. Cambridge Scholars. Retrieved October 7, 2022, from http://public.eblib.com/choice/PublicFullRecord.aspx?p=6714112

El Moudjahid, E. H. (1982). Un aspect morphologique du nom en tamazight: L'état d'annexion. *Langues et littératures (Rabat), 2*, 47-62.

Elouazizi, N. (2005). OCC distribution and the recoverability of grammatical deficiency. In M. Wilschko & R. M. Dechaine (Eds.), *Pronouns as Epiphenumena* (pp. [page numbers if available]). Oxford: Oxford University Press.

Ennaji, M. (2001). The Construct State in Berber. *Studies in the Linguistic Sciences, 31*(2).

Fahloune, K. (2020). On the status of subject and object markers in Kabyle: New evidence. *McGill Working Papers in Linguistics, 26*(1), 1-17.

Falk, Y. N. (1991). Case: Abstract and morphological. *Linguistics, 29*(2), 197-230.

Felser, C., & Wanner, A. (2001). The syntax of cognate and other unselected objects. In N. Dehé & A. Wanner (Eds.), *Structural aspects of semantically complex verbs* (pp. 105-130). Frankfurt, Bern, & New York: Peter Lang.

Galand, L. (1969). Types d'expansion nominale en berbère. *Cahiers Ferdinand de Saussure, 24*, 83-100.

Galand, L. (2010). *Regards sur le berbère*. Milano: Centro Studi Camito-Semitici.

Guerssel, M. (1983). A phonological analysis of construct state in Berber. *Linguistic Analysis, 11*, 309-330.

Guerssel, M. (1987). The status of lexical category preposition in Berber: Implications for the nature of construct state. In M. Guerssel & K. Hale (Eds.), *Studies in Berber syntax* (MIT Lexicon Project Working Papers).

Guerssel, M. (1992). On the case system of Berber. *Canadian Journal of Linguistics, 37*, 175-195.

Guerssel, M. (1995). Berber clitic doubling and syntactic extraction. *Revue québécoise de linguistique, 24*(1), 111-133.

Handschuh, C. (2014). *A typology of marked-S languages*. Berlin: Language Science Press. Retrieved from http://langsci-press.org/catalog/book/18

Harley, H. (1995). *Subjects, events and licensing* (Doctoral dissertation). MIT.

Haspelmath, M. (2010). Comparative concepts and descriptive categories in crosslinguistic studies. *Language, 86*(3), 663-687.

König, C. (2008). *Case in Africa*. Oxford: Oxford University Press.

König, C. (2009). Marked nominatives. In M. Malchukov & A. Spencer (Eds.), *Handbook of case* (pp. 535-548). Oxford: Oxford University Press.

Kossmann, M. (1997). *Grammaire du parler berbère de Figuig (Maroc oriental)*. Ussun amazɣ, 10. Editions Peeters.

Kossmann, M. (2000). *Esquisse grammaticale du rifain oriental*. Ussun amazɣ, 16. Editions Peeters.

Kossmann, M. (2007). Berber morphology. In A. S. Kaye (Ed.), *Morphologies of Asia and Africa, Vol. 1* (pp. 429-446). Winona Lake, IN: Eisenbrauns.

Kossmann, M. (2013). *A grammatical sketch of Ghadames Berber (Libya)*. Berber Studies, Vol. 40. Köln: Rüdiger Köppe Verlag.

Kossmann, M. G. (1999). *Essai sur la phonologie du proto-berbère*. Köln: Köppe.

Lahrouchi, M. (2013). Templates, markers and syntactic structure in Tashlhiyt Berber. *Lingua, 133*, 53-72.

Laoust, É. (1920). *Mots et choses berbères: Notes de linguistique et d'éthnographie: Dialectes du Maroc*. Paris: Challamel.

Legate, J. A. (2008). Morphological and abstract case. *Linguistic Inquiry, 39*(1), 55-101.

Lestrade, S. (2006). *Adpositional case* (Master's thesis). Radboud Universiteit Nijmegen, Nijmegen.

Makhad, H. (2023a). State alternations in Tashelhiyt Berber. In A. Jahfa et al. (Eds.), *Modern Issues in Comparative Arabic Linguistics*, publication of Faculty of Letters and Humanities Ben M'sik, Hassan II University, Casablanca, 25-41.

Marantz, A. (1991). Case and licensing. In G. F. Westphal, B. Ao, & H.-R. Chae (Eds.), *8th Eastern States Conference on Linguistics (ESCOL '91). Papers* (pp. 234-253). Columbus.

McFadden, T. (2004). *The position of morphological case in the derivation* (Doctoral dissertation). University of Pennsylvania.

Mettouchi, A. (2005). Discourse-configurationality and the encoding of semantic macroroles in Taqbaylit Berber: Noun phrases, personal affixes and clitics. In A. Mengozzi (Ed.), *Studi afroasiatici: XI Incontro Italiano di Linguistica Camitosemitica* (pp. 83-96). Milano: FrancoAngeli.

Mettouchi, A. (2014). Foundations for a typology of the annexed/absolute state systems in Berber. *Stuf, 67*(1), 47-61. Mouton De Gruyter.

Mettouchi, A., & Frajzyngier, Z. (2013). A previously unrecognized typological category: The state distinction in Kabyle (Berber). *Linguistic Typology, 17*, 1-30.

Mourigh, K. (2015). *A grammar of Ghomara Berber* (Unpublished doctoral dissertation). Universiteit Leiden, Leiden.

Ouali, H. (2011). *Agreement, pronominal clitics and negation in Tamazight Berber*. Continuum Studies in Theoretical Linguistics.

Ouhalla, J. (1991). *Functional categories and parametric variation*. London: Routledge.

Ouhalla, J. (1996). The construct state in Berber. In J. Lecarme, J. Lowenstamm, & U. Shlonsky (Eds.), *Studies in Afroasiatic*. Amsterdam: John Benjamins Publishing Company.

Penchoen, T. (1973a). *Etude syntaxique d'un parler berbère: Ait Frah de l'Aurès* (Studi Magrebini, 5). Napoli: Istituto Universitario Orientale.

Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. *Proceedings of the Berkeley Linguistic Society, 4*, 157-189.

Preminger, O. (2009). Breaking agreements: Distinguishing agreement and clitic doubling by their failures. *Linguistic Inquiry, 40*(4), 619-666.

Preminger, O. (2011). *Agreement as a fallible operation* (Doctoral dissertation). MIT.

Richards, N. (2013). Lardil 'case-stacking' and the timing of case assignment. *Syntax, 16*(1), 42-76.

Sasse, H.-J. (1984). Case in Cushitic, Semitic, and Berber. In J. Bynon (Ed.), *Current progress in Afro-Asiatic linguistics: Papers of the Third International Hamito-Semitic Congress, London, 1978* (pp. 111-126). Amsterdam: Benjamins.

Schütze, C. T. (1997). *INFL in child and adult language: Agreement, case, and licensing* (Doctoral dissertation). Massachusetts Institute of Technology.

Shlonsky, U. (1987). Focus construction in Berber. In M. Guerssel & K. Hale (Eds.), *Studies in Berber syntax* (MIT Lexicon Project Working Papers).

Sigurðsson, H. Á. (1991). Icelandic case-marked PRO and the licensing of lexical arguments. *Natural Language & Linguistic Theory, 9*(1), 32-63.

Sportiche, D. (1996). Clitic constructions. In J. Rooryck & L. Zaring (Eds.), *Phrase structure and the lexicon* (pp. 213-277). Dordrecht: Kluwer.

Torrego, E. (1995). On the nature of clitic doubling. In H. Campos & P. Kempchinsky (Eds.), *Evolution and revolution in linguistic theory* (pp. 399-418). Washington, DC: Georgetown University Press.

Uriagereka, J. (1995). Aspects of the syntax of clitic placement in Western Romance. *Linguistic Inquiry, 26*(1), 79-124.

Uriagereka, J. (2005). On the syntax of doubling. In L. Heggie & F. Ordóñez (Eds.), *Clitic and affix combinations* (pp. 343-374). Amsterdam/Philadelphia: John Benjamins.

Vycichl, W. (1957). L'article défini du berbère. In *Mémorial André Basset (1895–1956)* (pp. 139-146). Paris: Maisonneuve.

Yip, M., Maling, J., & Jackendoff, R. (1987). Case in tiers. *Language, 63*(2), 217-250.