On the Case System of Kabyle*

Lydia Felice
Georgetown University

SUMMARY

This paper examines the state alternation in Kabyle, arguing that state is the morphological realization of Case. The free state is accusative case, and the construct state is nominative case. Taking morphological patterns and syntactic distribution into account, Kabyle is found to be a Type 2 marked nominative language. Both states, or cases, are morphologically marked. The free state is the default case. This analysis accounts for the bulk of the distribution of free state and construct state nouns, and situates Kabyle as belonging to a typologically rare alignment system that is concentrated in Afroasiatic and African languages.

RÉSUMÉ

Cet article examine l'alternance d'état en kabyle, en faisant valoir que l'état est la réalisation morphologique de cas. L'état libre est un cas accusatif, et l'état d'annexion est un cas nominatif. Compte tenu des patrons morphologiques et de la distribution syntaxique, le kabyle s'avère être une langue à nominatif marqué de Type 2 où les deux états, ou bien les cas, sont marqués morphologiquement et que l'état libre est le cas par défaut. Cette analyse représente la majeure partie de la distribution des noms d'état libre et d'état d'annexion et situe le kabyle comme appartenant à un système d'alignement typologiquement rare et concentré dans les langues afro-asiatiques et africaines.

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1 INTRODUCTION

Nominals in Kabyle Berber may surface in either the free state (FS) (1a) or construct state (CS) (1b). This alternation is a contested topic in Berber linguistics. Previous analyses argue that so-called state morphology may be a morphological case marker (Guerssel 1992, 1995), a determiner (Achab 2003), or the realization of a Berber-specific category (Mettouchi & Frajzyngier 2013). This alternation is unrelated to the construct state in Semitic languages.

(1)	a.	aqcic	b.	weqcic	‘boy’
		axxam		wexxam	‘house’
		adlis		wedlis	‘book’
		taqcict		teqcict	‘girl’
		taxxamt		texxamt	‘room’
		tasraft		tesraft	‘hole’

Morphologically, nominals in the FS are preceded by the prefix *a-*. CS nominals lack this prefix; feminine CS nouns seem to lack any morphology that may be attributed to state, while masculine CS nouns are preceded by the prefix *w-*.[1]

The FS form is the citation form. Nominals in the FS may appear as preverbal subjects, as in (2a); objects of a verb, as in (2b); and complements of certain prepositions, as in (2c).

(2) a. A-rgaz y-ečča.
FS.M-man 3M.SG-eat.PFV
‘the man has eaten.’

b. Y-esbeγ w-rgaz ta-xxam-t.
3M.SG-paint.PFV CS-man F.FS-room-F
‘The man painted the room.’

c. Iwd-γ almi d a-gens n t-sraf-t.
reach.PFV-1.Sg until DIR FS.M-inside GEN CS.F-hole-F
‘I got inside of the hole.’ (adapted from Guerssel 1987)

Nominals in the CS may appear as postverbal subjects, as in (3a), and complements of certain prepositions, as in (3b).

(3) a. Y-ečča w-rgaz.
3M.SG-eat.PFV CS.M-man
‘the man has eaten.’

b. Iwd-γ γer w-jens n t-sraf-t.
reach.PFV-1.SG LOC CS.M-inside GEN CS.F-hole-F
‘I got inside of the hole.’ (adapted from Guerssel 1987)

These distributions do not form obvious natural classes; nevertheless, it is clear from the

[1] Note that schwa is not phonemic in Kabyle, and thus is not present in the underlying representation. Examples are provided in Kabyle orthography, rather than IPA. Schwa has been omitted at morpheme boundaries for clarity.

data that the alternation is syntactically conditioned.

I propose, building on previous work by Guerssel (1992; 1995), that the state alternation is morphological case marking. The FS corresponds to accusative case, while the CS corresponds to nominative case. Following König (2006), I argue that Kabyle is a marked nominative language. The FS is the functional default case, and both cases are morphologically marked. Kabyle's alignment pattern is typologically rare, but relatively well attested among Afroasiatic languages. This analysis accurately predicts the full distribution of the free and construct states.

This paper is structured as follows. In Section 2, I present background information on Kabyle, as well as an overview of previous analyses of the state alternation. Section 3 introduces marked nominative systems, and draws on evidence from nominal morphology and syntactic distributions to argue that Kabyle is a Type 2 marked nominative language. In Section 4, the implications of this analysis are discussed, and a remaining puzzle is is briefly considered. Section 5 concludes.

2 BACKGROUND

Kabyle, also called Taqbaylit, is a Berber (or "Amazigh") language that is primarily spoken in northern Algeria. It is a member of the Northern Berber branch of Afroasiatic languages (Kossmann 1999). Basic word order in Kabyle is VSO, although SVO and OVS orders are attested in certain contexts (Shlonsky 1987). The verb agrees in phi-features with the subject, and does not display object agreement. Kabyle is strongly pro-drop for subjects. Direct objects and indirect objects may be omitted if the relevant clitic is present in the phrase. Clitic doubling is attested in indirect object constructions. Clitic doubled direct objects are not attested in the variety of Kabyle under investigation in the present analysis, although they are attested in other dialects (Guerssel 1995).

2.1 PREVIOUS ANALYSES

In this section, I present an overview of previous analyses of the state alternation in Berber languages. It has been argued that the FS morpheme may be a determiner (Achab 2003) or the morphological realization of a Berber-specific category (Mettouchi & Frajzyngier 2013). Guerssel (1987, 1992, 1995) has argued that the state alternation is a difference in nominal size, and that the FS is a case marker. While my analysis follows Guerssel's insight that the state alternation is related to case, I demonstrate that his proposal cannot adequately account for the syntactic distribution of the states.

2.1.1 THE FREE STATE MORPHEME IS A DETERMINER

Previous work by Achab (2003) argues that the FS morpheme is a determiner. Crucially, this analysis accounts for the morphological patterns of FS and CS nouns. In FS nouns, the FS morpheme *a-* is a determiner occupying D. The determiner may inflect for gender, as in (4).

(4) [DP t-a- [NP zrut]]
F-FS- stone
'stone' (Achab 2003: 5)

The CS is derived independently of the FS in a two-part process. First, the gender morpheme is associated with a stem (5a). Next, the inflected stem may or may not be selected by a determiner (5b).

(5) a. [NP t-zrut]
F-stone
'stone' (Achab 2003: 6)
b. [DP s [NP t-zrut]
with F-stone
'with the stone' (Achab 2003: 6)

This analysis accounts for a puzzling morpheme order pattern in Kabyle. Achab (2003) assumes that either the determiner (in FS nouns) or the stem (in CS nouns) may inflect for gender. Achab's analysis thus explains why the gender morpheme surfaces prior to the free state determiner, but following the *s* determiner.

However, this analysis does not account for the generalization that the FS morpheme makes no semantic contribution to the nominal. If the FS morpheme is a determiner, then one would expect FS nominals to receive a definite or specific interpretation, and CS nominals to receive an indefinite or nonspecific interpretation. This contrasts with the data; in sentences like (6), the FS object *adlis* 'book' may receive either a definite or indefinite interpretation, depending upon the context in which it is uttered.

(6)

Y-efka=yas	wergaz	a-dlis	i	weqcic.
3M.Sg-man=3SG.IO	man.CS	FS-book	DAT	boy.CS

'The man gave a/the book to the boy.'

Achab (2003) suggests that perhaps the FS was historically a determiner, but that it has lost its specific or definite meaning over time. This would explain the lack of an interpretive effect of the FS morpheme; however, it fails to account for the synchronic alternation of states. Objects invariantly surface in the FS, while subjects invariantly surface in the CS. It is not clear why objects should be systematically marked by a determiner, while subjects are systematically unmarked. Achab's (2003) analysis thus fails to account for the functional aspects of the data, although it is able to capture the morphological facts.

2.1.2 STATE IS A NEW CATEGORY

Mettouchi & Frajzyngier (2013) explicitly argue that the state alternation is unrelated to case; rather, they propose that the FS is a previously unrecognized typological category that may be specific to Berber languages. If an argument provides the logical value for a variable introduced in the preceding function, it surfaces in the FS (Mettouchi & Frajzyngier 2013: 7). The trouble with Mettouchi & Frajzyngier's (2013) argument is that it requires one to posit an additional typological category which is crosslinguistically unattested, thus complicating universal grammar

solely for the purpose of accounting for the state alternation in Berber languages. An approach that can account for the state alternation without enriching universal grammar would be preferable.

2.1.3 THE STATE ALTERNATION IS NOMINAL SIZE

Guerssel (1987, 1992, 1995) analyzes Ait Seghrouchen Berber, a language that is closely related to Kabyle. He argues that the distinction between FS and CS nominals is one of nominal size. The FS morpheme is a default case marker, and nominals in the FS are full KPs (7a). In contrast, nominals in the CS are not marked for case; they are bare DPs (7b).

(7) a. [$_{KP}$ a [$_{DP}$ jdir]]
b. [$_{DP}$ wjdir] (Guerssel 1992: 178)

The interaction of state with prepositions provides crucial data for Guerssel's analysis. Certain prepositions select a CS complement, while other prepositions select a FS complement. Guerssel (1987) argues that the elements which have traditionally been categorized as prepositions actually belong to two distinct categories. Prepositions which select a FS complement, as in (8a), are truly prepositions. Prepositions which select CS complements, as in (8b), are case markers occupying K.

(8) a. Y-qqim al tamddit. (*al tmdditt)
3M.SG-stay.PFV until evening.FS
'He stayed until the evening.' (Guerssel 1987: 167)
b. Udef-x gher wjens. (*gher ajens)
enter.PFV-1.SG into inside.CS
'I went inside.' (Guerssel 1987: 162)

True prepositions select a full KP complement, a FS nominal. Because a CS nominal is a bare DP, the preposition may not select a CS complement. In contrast, case markers select a DP complement, a CS nominal. The FS morpheme and these case markers surface in complementary distribution because both morphemes occupy K. This portion of Guerssel's analysis is treated in further detail in Section 3.3.

According to this analysis, direct objects surface in the FS because Berber languages lack a designated accusative case marker. Rather, accusative case is morphologically realized by the default case marker, the FS morpheme.

Nominative case is not marked on subjects; rather, CS subjects are bare DPs. Guerssel (1995) argues that lexical subjects in Berber are instances of clitic doubling, and that the subject is a caseless CS nominal because the clitic absorbs case. Recall that subjects obligatorily trigger phi-agreement on the verb. Guerssel (1995) proposes that these subject agreement morphemes are not agreement, but pronominal clitics; hence, overt subjects are always clitic-doubled. Guerssel assumes that the clitic "absorbs Case" (Guerssel 1995;116), and that each structural Case may only be morphologically realized once. Because the clitic absorbs Case, Case may not be realized on the subject. This is why the subject surfaces in the CS, as a KP with an empty K^0.

Guerssel (1995) accounts for the generalization that preverbal subjects surface in the FS, while postverbal subjects surface in the CS, because preverbal subjects are base generated above

the clause. They do not form a clitic chain with the subject clitic, so default case may be realized on the dislocated KP. Thus, preverbal subjects surface in the FS.

Guerssel's (1995) explanation as to why objects surface in the FS is tied to his treatment of the FS prefix as a default case marker. According to Guerssel (1995), Kabyle lacks a designated accusative case marker. As a result, accusative case is marked by the default case marker.

Guerssel (1995) is able to account for the full distribution of FS and CS nominals using the typology of case in (32) in combination with his clitic doubling analysis. However, there are several problems with this analysis. For instance, Guerssel's proposal that phi-marking on the verb is a pronominal clitic suggests that subject agreement morphemes will display clitic-like behavior. However, established diagnostics distinguishing pronominal clitics from agreement affixes (see i.e. Kramer 2014) suggest that the object marker is not a pronominal clitic. For instance, clitics tend to be optional, while agreement is obligatory; as demonstrated in (9), subject agreement in Kabyle is obligatory.

(9) a. t-lha t-meṭṭu-t.
3.F.SG-walk.PFV CS.F-woman-F
'The woman walked.'
b. *lha t-meṭṭu-t.
walk.PFV CS.F-woman-F
'The woman walked.'

This behavior contrasts with the indirect object clitic in Kabyle, which is optional (10).

(10) Y-efka(=yas) w-rgaz a-dlis i w-qcic.
3M.SG-give.PFV=3M.IO CS.M-man FS.M.Sg-book DAT CS.M-child
'The man gave the book to the boy.'

In addition, agreement tends to be affixed to the verb, while clitics may adjoin either to the verb, or to an auxiliary or other element higher in the clause. For instance, in (11), the third person feminine singular object clitic adjoins to the potential mood-aspect-negation marker *ad.* In contrast, subject agreement is invariably affixed to the verb; the third person masculine singular subject agreement morpheme in (11) may not adjoin to the mood-aspect-negation marker.

(11) Ad=tt i-sew w-bruc.
POT=3F.SG.O 3SG.M-drink.AOR CS.M-creature
'The creature will drink it.' (Adapted from Mettouchi and Frajzyngier 2013: 5)

These diagnostics suggest that the subject marker is a φ-agreement affix and not a pronominal clitic. If subject agreement is not a clitic, then Guerssel's argument that the subject surfaces as a DP (in the CS) because a clitic absorbs case cannot hold. Instead, the subject should surface in the nominative case. If Kabyle lacks a nominative case marker, then Guerssel's analysis predicts that it will surface in the default case, the FS. This contrasts with the data. Guerssel's analysis thus does not generate accurate structures when it comes to the state of the subject and object; rather, it predicts that both the subject and object will surface in the FS. It is necessary to pursue a different analysis of state. I propose an alternative analysis in the following section. While I adopt the notion that the FS morpheme is a default case marker, I argue that the

CS is nominative case.

3 ANALYSIS: STATE IS CASE

In this section, I will propose an analysis of the state alternation as case morphology. In Section 3.2, I argue that the FS and the CS are both morphologically marked. The FS is accusative case, and the CS is nominative case. Section 3.3 examines the full distribution of FS and CS nouns to determine that the FS is the functionally unmarked form, while the CS is functionally marked. Given that the accusative case is the default case in Kabyle, and that both cases are morphologically marked, I argue that Kabyle is a Type 2 marked nominative language, as defined by König (2006).

3.1 MARKED NOMINATIVE ALIGNMENT

Before analyzing the case alignment patterns in Kabyle, it is necessary to establish background information on case alignment systems, and to clarify the terminology to be used in this paper.

According to Dixon (1994), case systems are distinguished from one another with respect to how they encode three basic syntactic functions. These are intransitive subjects (S), transitive subjects (A), and transitive objects (O). Prototypical accusative systems mark S and A in the same way as one another, and differently from O. S and A take nominative case, and O is marked for accusative case. The nominative case in an accusative system is functionally and (usually) morphologically unmarked, and is the citation form. Morphologically unmarked case has a zero realization. Functionally unmarked case is the case that is used in a wide range of functions; in other words, the functionally unmarked case is the default case.

This system contrasts with ergative systems, which mark S and O the same as each other, and differently from A; S and O take absolutive case, while A takes ergative case.

A less commonly attested system crosslinguistically is the marked nominative case system. König (2006) defines a marked nominative language as a language in which "at least two cases are distinguished, namely an accusative covering O, and a nominative covering S and A. The accusative must be the functionally unmarked form; it is the default case" (König 2006: 658). In these systems, S and A are marked the same as each other, and differently from O, like in an accusative system. The accusative case is functionally unmarked; functional markedness of the nominative is criterial for marked nominative systems. Although marked nominative languages are typologically rare, there is a relatively high concentration of them in Africa. Marked nominative languages are attested in the Afroasiatic and Nilo-Saharan language families.

Marked nominative languages can be further divided into two subtypes with respect to morphological markedness (König 2006). In Type 1, the accusative is the morphologically unmarked form and the nominative is the morphologically marked form. In Type 2, both nominative and accusative cases are morphologically marked. Type 2 is less common crosslinguistically, although there is a concentration of Type 2 languages in the Cushitic and Omotic families. According to König (2006), "if one of the two cases is derived from the other, it must be the nominative which is derived from the accusative and never the other way round" (658); that is, there is no Type 3. In her typological work, König categorizes Berber languages as Type 1 marked nominative languages; however, as will be demonstrated in this paper, Kabyle is better categorized as Type 2. There is thus a high concentration of Type 2 marked nominative

languages in the Afroasiatic family.

In the remainder of this section, I demonstrate that the state alternation in Kabyle Berber is morphological case, and that Kabyle is a Type 2 marked nominative language.

3.2 MORPHOLOGY: BOTH STATES ARE MARKED

Nominal morphology is a contested topic in the Berber linguistic literature. Pretheoretically, nominals in the free state are preceded by the vowel *a-*. In masculine nouns, this prefix is the only morphological marking on the stem (12a) In feminine nouns, this prefix is preceded by *t-*, which is largely assumed to be a feminine gender marker of some kind (12b). The plural realization of the prefix *a-* is *i-* (12c-d).

(12) a. aqcic ‘boy’
b. taqcict ‘girl’
c. iqcicen ‘boys’
d. tiqcicin ‘girls’

Nominals in the construct state lack this vowel prefix. In feminine CS nouns, the stem is simply preceded by the feminine gender marker *t-* (13b). Masculine CS stems are preceded by the prefix *w-* (13a). These prefixes are invariable in singular and plural forms (13c-d).

(13) a. weqcic ‘boy’
b. teqcict ‘girl’
c. weqcicen ‘boys’
d. teqcicin ‘girls’

Most previous analyses of the Kabyle noun argue that one state is derived from the other; either the FS is the unmarked form, and the CS is derived from the FS (Chaker 1995); or the CS is the unmarked form, and the FS is derived from the CS (Guerssel 1987). Neither analysis is sufficient to account for the full morphological pattern. If the CS is marked, as in (14a), then an analysis must account for why the feminine CS noun seems to lack an identifiable CS marker (14b).

(14) a. w-qcic
CS-child
‘boy’
b. t-qcic-t
F-child.CS-F
‘girl’

If the FS is marked, then an analysis must account for why the morpheme *w-*, which many of these analyses assume to be a masculine determiner, is absent in the FS (15b).

(15) a. w-zru
Det.M-stone.CS
'stone'
b. a-zru
FS-stone
'stone'

A third possibility is that both the FS and the CS are marked, and that free state and construct state nominals are derived via independent processes. This is similar to Achab's (2003) morphological analysis. I propose that the prefix preceding the nominal stem is a case marker that is sensitive to gender and number features. In such an analysis, the morphology of Kabyle nominals is decomposed as in (16) for feminine nouns and (17) for masculine nouns.

(16) a. ta-qcic-t
FS.F.SG-child-F
'girl'
b. t-qcic-t
CS.F-child-F
'girl'
c. ti-qcic-i-n
FS.F.PL-child-F-Pl
'girls'

(17) a. a-qcic
FS.M.SG-child
'boy'
b. w-qcic
CS.M-child
'boy'
c. i-qcic-n
FS.M.PL-child-Pl
'boys'

This morphological analysis allows us to explain a previously puzzling morphological pattern. Many previous analyses argue that masculine and feminine gender markers are determiners, which suggests that morpheme order in feminine FS nouns is D-K-stem (18).

(18) t-a-qcic-t
DEF.F-FS-child-F
'girl'

However, assuming a syntax wherein K dominates D, the Mirror Principle (Baker 1985) predicts that D should be closer to the stem than K. Kabyle nominals thus apparently violate the Mirror Principle.

This is further complicated when one considers KPs which include a case marker with semantic value, such as the comitative case marker *d*. In constructions like (19), which include

such a case marker, the morpheme order is K-D-stem.

(19) [KP d [DP t-qcic-t]]]
COM DEF.F-child-F
'with the girl'

While this morpheme order predicted by the Mirror Principle, it is unclear why it should contrast with the morpheme order in FS nominals.

Treating the entire nominal prefix as a case marker that is sensitive to gender and number solves these puzzles. The FS prefixes are a single morpheme; hence, the decomposition of a feminine FS noun is K-stem (20).

(20) [KP ta- [DP qcic-t]]
FS.F.SG- child-F
'girl'

In this analysis, there is no prefixal determiner in Kabyle.[2] Semantic case markers are present in case doubling constructions; the CS is the basis for case doubling (König 2006:677), and the Mirror Principle thus predicts that the CS morpheme will be closer to the stem than the semantic case marker.

I have proposed an analysis in which the FS and CS are independently derived morphological forms, and that nominal prefixes are case markers which inflect for gender and number. This structure has demonstrated benefits compared to previous proposals. However, a detailed study of Kabyle nominal structure is required to definitively determine whether this structure is the correct one. This is left for future research. For the purposes of the current investigation I adopt the morphological structure introduced here.

3.3 SYNTACTIC DISTRIBUTION OF STATES

In this section, I explain how each occurrence of the FS and the CS is accounted for in a marked nominative analysis in which the FS is accusative case and the CS is nominative case.

3.3.1 SUBJECTS

Consider the transitive and intransitive constructions in (21a-b). As the basic word order in Kabyle is VSO, the postverbal subject position is the canonical subject position. I assume, following previous work by Ouali 2011, Ouhalla 1998, and others, that VSO word order in Kabyle is derived via raising of the verb to Asp or T.

[2] Definiteness is marked on the nominal by a clitic.

(21) a. Ad t-azzal **t-mettu-t.**
FUT 3F.SG-run.IRR CS.F-woman-F
'The woman will run.'
b. T-wala **t-mettu-t** a-yazid.
3F.SG-see.PFV CS.F-woman-F FS.M.SG-rooster
'The woman saw the rooster.'

Transitive and intransitive subjects surface in the CS (21a-b), while transitive objects, like *ayazid* 'rooster' in (21b), surface in the FS. If the FS and CS are case marking, then this means that transitive and intransitive subjects, S and A, exhibit the same morphological marking, and transitive objects, O, exhibit a different morphological marking. It is thus safe to assume that Kabyle exhibits either a marked nominative system or an accusative system, not an ergative system. Following this assumption, I propose that the CS corresponds to nominative case, and the FS corresponds to accusative case.

The derivation which results in the Kabyle case alignment patterns is as follows: in Berber languages, Asp is a Probe (Baier 2018: 74). It enters into an Agree relationship with the closest eligible Goal in its c-command domain, the subject DP. This DP values uninterpretable φ-features on Asp; these are morphologically realized as subject agreement on the verb. Asp values nominative Case features on the DP. This nominative case feature is realized by CS morphology.

Transitive objects in Kabyle, unlike subjects, surface in the FS. The FS is thus assumed to be the morphological realization of accusative case. The derivation is as follows: the object is merged as a complement of V. *v* is a Probe; it enters into an Agree relationship with the most local Goal, the object DP. The object DP values uninterpretable φ-features on *v*; however, these features are not morphologically realized. *v* values accusative Case on the DP, which is realized by FS morphology.

These derivations demonstrate that the FS and the CS are the morphological realization of accusative and nominative Case features, respectively. The distribution of states as demonstrated thus far is as presented in Table 1.

Table 1: Interim Distribution of FS and CS Nominals

Free State (Accusative Case)	**Construct State (Nominative Case)**
O	S/A
Citation form	

This distribution would be consistent with either an accusative or a marked nominative alignment pattern, although the nominative case is unmarked in most accusative languages. To determine whether Kabyle's alignment pattern is best classified as accusative or marked nominative, the other grammatical functions for the FS and CS must be examined. If the FS is the functionally unmarked form, then Kabyle is a marked nominative language. If the CS is the functionally unmarked form, then Kabyle is an accusative language. In the remainder of this section, the functional distribution of both states is examined in detail. I ultimately conclude that Kabyle is a marked nominative language, as the FS is the functionally unmarked form.

3.3.2 HANGING TOPICS

When the subject surfaces in the preverbal position, it surfaces in the FS (22).

(22) A-rgaz y-ečča.
FS.M.SG-man 3.M.SG-ate
'The man has eaten.'

In this section, I demonstrate that this data is not evidence that the state alternation is not case. Rather, the syntactic structure involved in SVO sentences suggests that the FS is the default case, and Kabyle is a marked nominative language.

To account for why preverbal subjects in Kabyle surface in the FS, it is first necessary to investigate the structure of SVO sentences. According to Shlonsky (1987), SVO word order in constructions like (23) is not derived via syntactic extraction of the subject to the periphery. This is evidenced by the lack of antiagreement effects in such constructions. In Kabyle, subject extraction triggers antiagreement on the verb. Rather than displaying full agreement, the verb surfaces in what has been described by Ouhalla (1998) as the participle form. For instance, in the relative clause in (23a), the third person feminine singular subject *taqcict* 'girl' is extracted. The verb *ruḥ* 'go' does not express third person feminine singular subject agreement, which is demonstrated in (23b). Rather, the verb surfaces in the participle form.

(23) a. ta-qcic-t ara i-ruḥ-n γer lakul
FS.F.SG-child-F FUT 3M.SG-go.IRR-PTCP Loc school
'The girl who will go to school'
b. T-ruḥ war a-dlis=iness.
3F.SG-go.PFV without FS.M.SG-book=POSS.3SG.F
'She went without her book.'

If the subject in an SVO sentence is extracted, then we would expect the verb in such constructions to surface in the participial form. This is not the case. The verb in SVO sentences like (24) displays full agreement with the subject.

(24) A-mqerqur y-eqqim γef w-zru.
FS.M.SG-frog 3M.SG-sit.PFV on CS.M-rock
'As for the frog, he sat on the rock.'

The lack of antiagreement effects in such constructions is evidence that SVO order in these constructions is not derived via Ā-movement. Instead the subject is adjoined to the clause in the left periphery, perhaps in Spec,TopP (25) as suggested by Achab (2003).

(25) [$_{TopP}$ amqerqur [$_{TP}$ yeqqim γef wezru]]

In other words, the overt subject is a hanging topic. It is with noting that this construction is not restricted to subjects; the object can also be topicalized, resulting in OVS word order (26).

(26) A-mqerqur$_i$ y-effer=it$_i$ w-qcic.
FS.M.SG-frog 3M.SG-hide.PFV=3M.SG.O CS.M-child
(roughly) 'As for the frog, the boy hid him.'

The hanging topic in Kabyle surfaces in the FS, regardless of whether it references a subject or a direct object in the main clause. The topic is adjoined to the clause, in a position from which it does not receive abstract Case in the syntax. Because the morphology does not receive any particular abstract case feature to spell out, the hanging topic surfaces in the default morphological case (Anagnostopoulou, Van Riemsdijk, & Zwarts 1997). This distribution suggests that the FS, or accusative case, is the default case.

The distribution of the FS and CS so far is as established in Table 2.

Table 2: Interim Distribution of FS and CS Nominals

Free State	**Construct State**
O	S/A
Hanging Topics	
Citation Form	

The presence of hanging topics in the FS strongly suggests that the FS is default case. Hanging topics frequently surface in the default case crosslinguistically. In addition, the generalization begins to emerge that arguments in the FS surface in a wider variety of contexts than the CS, which thus far is only attested in transitive and intransitive subjects. This suggests that the CS is functionally marked. In the following section, data from prepositions are considered and we see a second use of the CS.

3.3.3 PREPOSITIONS

Berber languages have two classes of what have traditionally been called "prepositions". While one class of prepositions selects a FS complement, the other class selects a CS complement. This is illustrated below. In (27a), the preposition *al* `until' selects a FS complement, *tamedditt* 'evening'. In contrast, in (27b), the preposition *ɣer* 'toward' selects the CS complement *tmdditt* 'evening'.

(27) a. Qqim-ɣ al ta-meddit-t.
stay.PFV-1.SG until FS.F.SG-evening-F
'I stayed until the evening.' (Adapted from Guerssel 1992;178)
b. Lul-ɣ ɣer t-mddit-t.
born-1.SG toward CS.F-evening.-F
'I was born toward the evening.' (Adapted from Guerssel 1992;178)

This data poses a potential problem for any analysis which treats the state alternation as case. A preposition licenses structural Case to its complement; we will refer to this as oblique Case. Because Kabyle morphology seems to lack a designated oblique case marker, the default case will be the morphological realization of oblique Case. If Kabyle is marked nominative, and

the FS is accusative case, then we would expect complements of all prepositions to surface in the FS. If the CS is nominative case, we only expect the CS to surface as the morphological spell-out of a nominative case feature. Thus, it seems that the current analysis does not predict (27b).

To account for this distribution, I will first turn to Guerssel's (1992) analysis of prepositions in Ait Seghrouchen Berber. Next, I will adapt Guerssel's insights to my approach to the CS and FS and apply the resulting analysis to new data from Kabyle.

3.3.3.1 PREPOSITIONS AND CASE MARKERS

Recall that Guerssel (1992) argues that "the CS and FS nominals are viewed as examples of different levels of the projection of the lexical category noun" (Guerssel 1992;178). The CS nominal is a bare DP, and the FS is a full KP in which K^0 is occupied by an overt case marker, the vowel *a-*.

According to Guerssel (1992), prepositions that select CS complements and prepositions that select FS complements belong to two separate categories. Table 3 enumerates the prepositions which select CS complements (Guerssel 1992; 176). Guerssel proposes that these prepositions are actually case markers, much like the FS vowel. They occupy K^0 and select DP complements. This structure is illustrated in (28).

Table 3: Ait Seghrouchen Case Markers

Case marker	**Meaning**
s	instrumental
d	comitative
γer	elative
i	dative/recipient
dy	inessive

(28) Rwel-γ [$_{KP}$ γer [$_{DP}$ w-jdir]]
run.PFV-1.SG [toward [CS.M-cliff]]
'I ran toward the cliff.' (adapted from Guerssel 1992;180)

The prepositions which select FS complements are provided in Table 4.

Table 4: Ait Seghrouchen Prepositions

Preposition	**Meaning**
al	'until'
bla	'without'

Guerssel (1992) claims that these morphemes are the only true prepositions, as they select the highest nominal projection (KP) as a complement. This structure is illustrated in (29).

(29) Rwel-γ [PP al [KP a-jdir]]
run.PFV-1.SG [until [FS.M.SG-cliff]]
'I ran to the cliff.' (adapted from Guerssel 1992;180)

Evidence in support of this categorization comes from selection. According to Guerssel (1992), a preposition may select either a FS nominal, as in (29), or a CS nominal that has been selected by a case marker, as in (30). Guerssel argues that this is evidence that the FS morpheme and these case markers belong to the same functional category.

(30) Rwel-γ [PP al [KP γer [DP w-jdir]]]
run.PFV-1.SG [until [toward [CS.M-cliff]]]
'I ran to the cliff.' (adapted from Guerssel 1992;180)

Structural ambiguities provide further support for this claim. According to Guerssel (1987), prepositions may be generated within a KP or outside of it, while a KP cannot be generated within another KP. The Ait Seghrouchen construction in (31) is not ambiguous.

(31) Cci-γ i-baw-n dy w-urtu.
eat.PFV-1.SG FS.M.PL-bean-PL in CS.M-garden
'I ate the beans in the garden.' (adapted from Guerssel 1992;179)

dy, 'in', is a case marker, so the phrase *dy wurtu* 'in the garden' is a KP. Thus, it can only appear outside of the KP *ibawn*, 'beans'. The meaning that the beans were located in the garden, in which 'beans in the garden' forms a constituent, is ruled out. 'In the garden' must be generated outside of the KP, modifing the action of eating.

In contrast, the sentence 'I bought the trunk without money', provided in (32), is ambiguous. This is expected because *bla* 'without' is a true preposition, unlike *dy* 'in' in (31).

(32) Sγi-γ a-senduqq bla i-drim-n.
buy.PFV-1.SG FS.M.PL-trunk without FS.M.PL-money-PL
'I bought the trunk without money.' (adapted from Guerssel 1992;179)

bla idrimn 'without money' "forms a prepositional phrase generated either outside KP or within it" (Guerssel 1992;179). If the prepositional phrase is generated outside of KP, then the interpretation of this sentence is that the trunk was procured without any money, perhaps through a trade. If the prepositional phrase is generated within KP, then the meaning of the sentence is that the trunk did not contain any money. Guerssel (1992) claims that this ambiguity is strong evidence that *bla* is not a case marker.

I adopt Guerssel's (1992) insight that so-called prepositions that select CS complements are actually case markers, while prepositions that select FS complements are true prepositions. However, in the present analysis, CS and FS nominals are both KPs; the CS is not a bare DP. As a result, it cannot be the case that prepositions and case markers select a different size of nominal complement.

Rather, following König (2006), I propose that the CS is the basis for case doubling constructions. Case doubling is present when a case marker attaches to a stem which itself is a derived case form, rather than a morphologically unmarked form. In these constructions, two or

more case endings express only one function. For example, in Kabyle genitive constructions like (33), the CS (nominative case marking) and the genitive morpheme (genitive case marking) both surface, although only the genitive function is performed.

(33) a-fus n w-qcic
FS.M.SG-hand GEN CS.M-child
'The boy's hand'

All constructions in which Guerssel's (1992) case markers select a CS complement are instances of case doubling. For instance, consider the phrase *s* *t̲kerrust̲* 'with the car' in (34).

(34) T̲-hud t̲-meṭṭu-t̲ a-xxam s t̲-kerrus-t̲
3F.SG-destroy.PFV CS.F-woman-F FS.M.Sg-house INST CS.F-car-F
'The woman destroyed the house with a car.'

The instrumental case marker attaches to a stem which includes the nominative case marker. In this construction the instrumental function is expressed. Because the nominal *t̲-kerrus-t̲* 'car' is not a subject, and thus lacks nominative case features, the nominative function is not expressed.

Intuitively, it seems odd that a functionally marked case should form the basis for case doubling constructions. In König's (2006) typological work, she finds that the accusative forms the basis for case doubling constructions in many marked nominative languages. However, there are certain marked nominative languages, such as K'abeena, where the basis of case doubling constructions is the genitive case (König 2006: 677). It is thus typologically attested that a functionally marked case may be the basis for case doubling, lending support to the analysis that the nominative case is functionally marked in Kabyle.

Prepositions which select FS complements are true prepositions. These prepositions license oblique case to the DP complement. Kabyle lacks a designated oblique case marker. The morphological realization of oblique case features is thus the default case—the FS. Complements of prepositions never surface in the CS because the CS is the morphological realization of nominative case features, which are absent in this syntactic context.

In the following section, I introduce data from Kabyle that is an apparent counterexample to Guerssel's (1992) analysis. Ultimately, I demonstrate that this data is not problematic for an analysis of the state alternation as case.

3.3.3.2 PREPOSITIONS AND CASE IN KABYLE

In Kabyle, some of the morphemes that Guerssel (1992) has classified as case markers in Ait Seghrouchen may select either a FS or CS complement (35a-b).

(35) a. Rzi-γ ttaq s w-zru.
break.PFV-1.SG window INST CS.M-rock
'I broke the window with the rock.'

b. Rzi-γ ttaq s a-zru.
break.PFV-1.SG window against FS.M.SG-rock

'I broke the window pane against the rock.'

This is an apparent counterexample to the analysis presented above. If the FS marker is the accusative case marker, and the CS, or nominative case, is the basis for case stacking, then (35b) is predicted to be ungrammatical.

I argue that this is not evidence that the state alternation is unrelated to case; rather, it is evidence that Ait Seghrouchen and Kabyle have different inventories of case markers and prepositions. Some case markers in Kabyle are homophonous with prepositions, leading to pairs like (35a-b). The presence of such minimal pairs suggests that there are two morphemes *s* in Kabyle. One is a preposition, and the other is a case marker. This is clear from the fact that the two sentences (35a) and (35b) have different semantic interpretations, and this difference in meaning is attributable to whether the morpheme s is a preposition or a case marker. It is not attributable to the presence or absence of the FS morpheme itself.

According to the present analysis, the morpheme *s* in (35a), which selects a CS complement, is a case marker in a case doubling construction. The interpretation of this sentence is that the speaker uses a rock to break the window, perhaps by throwing the rock. The case marker *s* contributes an instrumental reading, designating the rock as the instrument involved in the breaking event.

In contrast, in (35b), the morpheme *s* is a preposition selecting a FS complement. The interpretation in this case is that the speaker broke the glass pane in the window by smashing it against a rock. The prepositional phrase does not designate the rock as an instrument.

The second piece of evidence that these morphemes are two independent syntactic objects is structural ambiguities. Recall from Guerssel's (1992) original analysis that prepositions trigger a structural ambiguity, while KPs do not trigger a structural ambiguity. If so-called case markers which select FS complements are really prepositions, then this analysis predicts that there will be a structural ambiguity depending on whether the PP is generated within the KP or outside of it. For instance, consider the Kabyle sentence (36).

(36) I-walaγ w-rgaz ṯa-mṭṭu-ṯ d i-zimer.
3.M.SG-see.PFV CS.M-man FS.F.SG-woman-F with FS.M.PL-sheep
'The man saw the woman with the sheep.'

In (36), the phrase *d izimer* is not predicted by Guerssel's (1992) analysis. In Ait Seghrouchen, *d* is a case marker and *izimer* is a FS noun. If *d* is a preposition in this Kabyle sentence, and this phrase is actually a prepositional phrase, we expect the sentence to have two interpretations depending on whether the PP *d izimer* 'with the sheep' is generated within the KP *ṯamṭṭuṯ* 'the woman' or outside of it. If *d izimer* is a KP despite the fact that *izimer* surfaces in the free state, then we would not anticipate such a structural ambiguity.

Indeed, (36) does have two different readings resulting from independent syntactic structures. In the first reading, the man performed the action of seeing while he was with the sheep. *d izimer* is generated outside of the object KP. In the second reading, the man saw the woman who was with the sheep. *d izimer* is generated within the object KP, which would not be

possible if <u>d</u> were a case marker. This syntactic ambiguity illustrates that the morpheme <u>d</u> is a preposition in Kabyle, and is homophonous with a case marker.

Kabyle and Ait Seghrouchen differ in their inventories of prepositions and case markers. Some prepositions in Kabyle are homophonous with case markers; however, these are still distinct morphemes. As a result, the Kabyle data in (35) and (36) is not problematic for Guerssel's (1992) analysis. Based on the diagnostics described above, I propose the inventories of prepositions and case markers in Kabyle in Tables 5 and 6. Future research should apply these diagnostics to other prepositions and case markers across Berber languages to determine the most accurate categorizations.

Table 5: Case Markers in Kabyle

Case marker	**Meaning**
s	instrumental
d	comitative
γer	locative
zy	ablative
n	genitive
dy	illative
i	dative

Table 6: Prepositions in Kabyle

Preposition	**Meaning**
almi (+d)	until (+ direction)
mebla	without
s	against
d	with
γef	about

The morphemes that have traditionally been referred to as "prepositions" in Kabyle and Ait Seghrouchen actually belong to two different categories—prepositions and case markers. The inventory of case markers and prepositions between Berber languages may vary, and some prepositions and case markers in Kabyle are homophonous.

Prepositions select FS complements in Kabyle. This is because prepositions assign oblique case to their complements. Kabyle lacks a designated oblique case marker, and as a result, the oblique case feature is morphologically realized as the default case, accusative case (FS). Bare CS nominals realize nominative case features; because the DP complement of a preposition lacks a nominative case feature, the complement of a preposition will not surface in the CS.

Case markers select CS complements. I propose, following König (2006), that these constructions are instances of case doubling. In Kabyle, the nominative case, or CS, is the basis for case doubling. The FS morpheme and semantic case markers are in complementary distribution because accusative case is not the basis for case doubling constructions, so the FS is ungrammatical.

3.4 INTERIM SUMMARY

The distribution of FS and CS nominals is presented in Table 7.

Table 7: Full Distribution of FS and CS Nominals

Free State	Construct State
O	S/A
Complements of prepositions (oblique case)	Basis for case doubling
Hanging topics	
Citation form	

In this subsection, we have seen both the FS and the CS performing functions that are not typically associated with accusative and nominative case, as the complement of a preposition and the basis for a case doubling construction, respectively. However, taking all of the evidence together, it is apparent that the FS appears in a wider variety of functional contexts. The FS is the citation form, and nominals in the FS surface as objects, complements of prepositions, and hanging topics. Nominals in the CS may be the subject of transitive or intransitive constructions, or the basis for case stacking. Because the FS surfaces in a wider variety of functional contexts, I propose that the FS is the functionally unmarked form. This evidence suggests that the FS is the accusative case, and that Kabyle is a marked nominative language.

4 DISCUSSION

This analysis argues that the FS and the CS are the morphological realization of Case, building on Guerssel's (1987) argument that the free state is a case marker. The current account avoids a key problem with Guerssel's original account. Guerssel argued that subjects surface in the CS because the subject marker on the verb is a clitic that absorbs case. I have demonstrated, using criteria established in Kramer 2014, that the subject marker is an agreement morpheme rather than a pronominal clitic. As a result, Guerssel's argument does not account for why subjects surface in the CS. The current analysis argues that the CS is nominative case, not a DP. This accurately predicts that subjects will surface in the CS.

An analysis of the state alternation as morphological case avoids the theoretical pitfalls of arguing that the FS is a determiner (Achab 2003). By arguing that the FS is Case, rather than a determiner, the present analysis predicts that the state of an argument will not have a semantic effect, and that the alternation will be syntactically conditioned.

4.1 A REMAINING PUZZLE: CASE AND ANTIAGREEMENT

An additional challenge stems from the interaction of case and wh-movement. Subjects that have undergone wh-movement, such as *anit̲a t̲aqcict̲* 'which girl' in (37), surface in the FS.

(37) Aniṯa ṯa-qcic-ṯ i i-sess-n a-yefki?
which FS.F.SG-child-F C 3M.SG-drink.IPFV-PTCP FS.M.SG-milk
'Which girl is drinking milk?'

However, as established in Section 3, subjects in their base position surface in the CS. Case is assigned prior to Ā-movement, and thus should not be influenced by wh-movement. If the FS is accusative case and the CS is nominative case, then we expect the subject in a wh-question to surface in the CS. This contrasts with data like (37).

One potential solution to this problem is that the case of a subject that has undergone Ā-movement may be tied to anti-agreement. Recall that in subject extraction contexts, the verb surfaces in an invariant form which has traditionally been referred to as the participle. This phenomenon is referred to as "anti-agreement". According to Baier (2018), anti-agreement occurs when a φ-probe agrees with a subject bearing an [Ā]feature. The [Ā] feature triggers total impoverishment of φ-features in the morphology.

In this framework, the difference between an extracted subject and a non-extracted subject is that the feature bundle associated with an extracted DP contains an [Ā] feature, while the feature bundle associated with a non-extracted DP does not. Perhaps in Kabyle, the [Ā] feature may trigger impoverishment of case features on the DP. The extracted subject will lack case features, and will surface in the default case. This is why the extracted subject surfaces in the FS, rather than the CS. In other words, this may be an anti-agreement effect that is realized on the DP. Future research is required to confirm this suspicion and to propose a formal analysis of this pattern; in addition, future work should investigate whether or not other languages with noted anti-agreement effects on verbs demonstrate a similar effect on the noun.

5 CONCLUSION

This paper demonstrates that the free state and construct state in Kabyle Berber are the morphological realization of accusative and nominative case, respectively. Kabyle is a Type 2 marked nominative language. By arguing that both cases are morphologically marked, this analysis avoids the morphological pitfalls associated with deriving one state from the other. However, the exact morphological structure of the Kabyle noun phrase must be confirmed by future research.

Functionally, this analysis accounts for the full distribution of FS and CS nouns. The CS, nominative case, is marked on transitive and intransitive subjects, and forms the basis for case doubling constructions. The FS marks transitive objects, demonstrating that it is the accusative case. The FS is the citation form, and hanging topics surface in the FS, as structural case is unavailable in this position. These distributions suggest that the FS is the default case. Complements of prepositions surface in the FS as well, as Kabyle lacks a designated oblique case marker. Because the FS, or accusative case, surfaces in a wider variety of syntactic contexts than the CS, nominative case, it appears to be the functionally unmarked form. Thus, Kabyle is a marked nominative language.

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