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An oft-overlooked complex morphosyntactic corpus

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1. Introduction

- ¹ In the literature¹ on Amazigh linguistics, bu-nouns (buNs) (like *butgmmi* ‘the owner of the house’) have been dealt with only sporadically and have at times even been overlooked, notwithstanding their being very common (see Bensoukas 2013a-b for a review). A very productive process, buN formation presents diverse interesting phenomena, including the overall morphology of buNs and the morphosyntactic complexity of their inner nouns. id-pluralization also calls attention to the inflectional morphology buNs share with a larger gamut of nouns, including names, kinship terms, loanwords, and compounds. Also, the recursion that *bu* and *id* may exhibit is intriguing.
- ² In this paper, we will present a corpus of Tashlhit buNs, bringing to the fore their challenging linguistic behavior as well as their theoretical relevance. Extensions to other dialects of Amazigh are suggested on the basis of the available data. In our description of the morphosyntax of buNs, different issues will emerge such as periphrasis, alienable vs. inalienable possession, the order of morphemes, syntax within words, the recursion of affixes, and the organization of the lexicon. The morphology of buNs will be shown to present challenges to robust generalizations about morphological organization, namely Greenberg’s Universal 28, the Lexical Integrity Hypothesis and the No Phrase Constraint.
- ³ We proceed as follows. In § 2, we describe the morphology and semantics of buNs and compare them to their periphrastic counterparts. § 3 highlights the morpho-syntactic complexity of buNs. § 4 describes id-pluralization, which concomitantly sets buNs apart from ‘normal’ nouns and aligns them with other morphologically simple or complex

nouns. A comparative approach is attempted in § 5, placing Tashlhit buNs in a larger Amazigh context.

2. Tashlhit bu-nouns

2.1 Productivity and semantic richness

- 4 buN formation is very productive, affecting nouns that are native (1) and borrowed (from Moroccan Arabic (2a) and French (2b)). For descriptive convenience, we distinguish the ‘inner’ noun, the one to which the affix *bu* attaches, from the ‘outer’ noun, the entire buN combination.² In some frozen native nouns (1a), the inner noun has a bleached meaning or otherwise does not stand alone. The inner noun is generally in Construct State (CS) form:³

- (1) a. buⵝⵝⵍⵏⵏⵏ ‘snail’
butagant ‘boar’
buttgra ‘turtle’
busskka ‘snake’
butllis ‘nyctalopia’
b. bu+agajju buwgajju ‘strong-headed person’
bu+aⵅⵅu buwⵅⵅu ‘one who sells butter-milk’
bu+anu buwanu ‘owner of the well’
bu+urti buwurti ‘owner of the orchard’
bu+imi bijmi ‘someone with a big mouth’
(2) a. bu+Arabic loans
bu+zzriⵏa buzzriⵏa ‘seller of dried fruits’
bu+ⵝⵝⵏⵏⵏ buⵝⵝⵏⵏⵏ ‘layer of tiles’
bu+rrxam burrxam ‘marble craftsman’
bu+ⵝⵝⵏⵏ buⵝⵝⵏⵏ ‘doughnut seller’
b. bu+French loans
bu+ssinima bussinima ‘owner of the cinema’
bu+laṣṣall bulaṣṣall ‘owner of the gymnasium’
bu+labatri bulabatri ‘drummer’
bu+libitiz bulibitiz ‘one who messes around’

- 5 Meaning-wise, *bu* expresses the generic notion of ‘the one with X’, where X stands for any noun, as in *bulmal* ‘the rich one (lit. the one with money)’. In this respect, it is opposed to

(bu+tigers), bijzgarn (bu+cattle), bijzran (bu+stones); (ii) *Toponyms*: buwargan, buwabuđ, bijkarran, bijg^w

- 9 In other words, while *bab* can only convey alienable possession, *bu* can denote both alienable and inalienable possession.

3. Morphosyntactic complexity

3.1 A complex morphology

- 10 In buNs, the inner and outer nouns show quite conspicuously puzzling inflectional behavior. First, the outer nouns take quite different inflectional affixes from the ones the inner nouns take. Second, buNs contain inflectional morphology inside them, a particularly challenging aspect for Greenberg’s Universal 28 if *bu* is considered a derivational affix.

3.1.1 Outer vs. inner nouns: Different inflections

- 11 The inner nouns are overtly marked for both the inherent inflections of gender and number and the contextual inflection of case; however, while the outer nouns take inherent inflections, they are not overtly marked for case. In (7a), the outer noun is singular, while in (7b) it is plural. In both cases, the inner nouns may be inflected for number, gender, and of course the compulsory CS.

(7) a. Sg. buN ‘the one with the hand(s)’

	M. Sg. <i>inner N</i>	F. Sg. <i>inner N</i>	M. Pl. <i>inner N</i>	F. Pl. <i>inner N</i>
M.	buwfus	butfustt	bijfassn	butfassin
F.	mmuwfus	mmutfustt	mmijfassn	mmutfassin

b. Pl. buN ‘the ones with the hand(s)’

	M. Sg. <i>inner N</i>	F. Sg. <i>inner N</i>	M. Pl. <i>inner N</i>	F. Pl. <i>inner N</i>
M.	idbuwfus	idbutfustt	idbijfassn	idbutfassin
F.	isttmmuwfus	isttmmutfustt	isttmmijfassn	isttmmutfassin

- 12 Concerning gender, M. *bu* alternates with F. *mmu*. In contrast, the inner noun may appear with the F. circumfix *t...t*. Also, concerning number, the outer nouns take M. *id* or F. *istt*, concatenated with the entire buN. The inner noun may also be plural, yet the pluralization mode is either sound or broken, as for normal nouns. In (7), all the inner plurals are sound, but broken plurals are also possible, like in *buwuna* ‘the one with well (s)’. Finally, the outer noun does not bear any overt CS marking. Contrariwise, the inner

noun obligatorily occurs in CS and bears its mark overtly; inner nouns in FS are simply illicit (e.g. *buafus, *butafustt).

- 13 To conclude, buNs display an asymmetry in that the inner nouns are overtly marked for both the inherent (gender and number) and contextual (case) inflections, whereas the outer nouns are marked overtly for inherent inflections but definitely not for contextual inflection.

3.1.2 Morpheme order

- 14 The second challenge we deal with relates to the fact that buNs contain inner nouns inflectionally marked for gender, number and case.
- 15 As *bu* cannot be treated as an inflectional affix, this is a clear case of derivation occurring outside inflection.⁷ This is a serious challenge to Greenberg's (1963: 93) Universal 28: "if both the derivation and inflection follow the root, or they both precede the root, the derivation is always between the root and the inflection" (see also Principle#505 of The Universals Archive). buNs reflect just the opposite situation: Compare (8a), what Universal 28 dictates, and (8b), the actual behavior of buNs:

- (8) a. Universal 28:
Inflection + Derivation + Root + Derivation + Inflection
 b. buNs: buwfus *bu* (=derivation) + *u* (=CS inflection) +
fus (=Root)

- 16 As can be seen, the order of the affixes in the buN in (8b) is reversed, with derivation appearing outside inflection.
- 17 One possible way to reconcile buN-formation and Universal 28 is to posit *bu* as a special type of affix, i.e. a phrasal affix (see Bensoukas (2013a) for arguments). In this conception, *bu* attaches at the word or phrase level, a position amply justified. This so being, *bu* attaches to words that are fully inflected and that can appear in certain cases with modifiers and accordingly form phrases (see § 3.2).

3.1.3 Lexical integrity

- 18 The last challenge buNs pose is one related to the Lexical Integrity Hypothesis, stated in Anderson (1992: 84) as "the syntax neither manipulates nor has access to the internal structure of words" (see also Booij 2009; Lieber and Scalise 2007).
- 19 In buNs, the affixation of *bu* induces the CS. Generally, the inner noun is marked for CS regardless of its gender or number specifications. Recall from (8) that the inner noun in *buwfus* is marked for CS. The corresponding F. *tfustt* is also marked for CS; accordingly, the buN containing this form is realized as *butfustt*. The same thing happens with plural inner nouns: *bijfassn* and *butfassin* both reveal overt CS morphology.
- 20 As already pointed out, the CS is a contextual, case inflection which is sensitive to syntax. Therefore, buN-formation seems to be a morphological operation in which syntax is taking place, and syntax just seems to "manipulate" or "have access" to word internal structure. This behavior clearly breaches the Lexical Integrity Hypothesis.

3.1.4 Recursion

- 21 (9) contains buNs showing a certain amount of recursion: *bu* is repeated or co-occurs with the feminine *mmu*. (9a) gives a case of frozen buNs, and (9b) gives both M. and F. outer buNs, with an inner noun in the feminine. These also show the same pattern of recursion, illustrating how general this aspect of the morphology of buNs can be.

(9) a. **buttgra** ‘turtle’
bubuttgra/mmubuttgra ‘the one with the turtle, M./F.’
 b. **mmidlaln** ‘the one with braids, F.’
bummidlaln/mmummidlaln ‘the one with the one with the braids (F.), M./F.’

- 22 In (10), we illustrate what we consider the most intriguing behavior: Recursion in buNs can yield quite long words, with *bu* and the plural *id* repeated consecutively in word initial position:

(10) **buwgajju** ‘strong-headed person’
idbijg^wjja ‘strong-headed persons’
buidbijg^wjja ‘father of strong-headed persons’
idbuidbijg^wjja ‘fathers of the fathers of...’
buidbuidbijg^wjja ‘father of the fathers of the fathers...’
idbuidbuidbijg^wjja ‘fathers of the father of the fathers...’

- 23 It is noteworthy that we can technically keep adding *bu* and *id* recursively. More significantly, if there are any constraints on the extent of such recursion, and there should be, these would be psycho-linguistic, or other, rather than purely morphological.
- 24 In Bensoukas (2012), this aspect of buN morphology is taken as evidence for the existence of mild polysynthetic morphology in Tashlhit. Typologically, fusional, agglutinative, isolating and polysynthetic morphologies are generally recognized. Other ways of classifying languages have been proposed, mainly using their degree of fusion and synthesis (Bynon 2004; Helmbrecht 2004 and references therein). De Reuse (2006: 746-747) (see also De Reuse 2009) lists five properties of polysynthesis: Productivity, recursion, concatenation, interaction with syntax, and lexical category change. Examples from English are anti- and re-, both productive and recursive affixes (e.g. anti-antiabortion, rewrite). The author uses the term “productive non-inflectional concatenation” (PNC) for such affixes, and asserts that languages can be mildly polysynthetic (a few PNC elements), solidly polysynthetic (over 100 PNCs), or extremely polysynthetic (several hundreds of PNCs).
- 25 Tashlhit morphology has been characterized as largely concatenative and non-concatenative (i.e. involving agglutination and fusion), even in single morphological classes like the plural. Never has there been mention of polysynthesis in Tashlhit. Bensoukas (2012) proposes that buN morphology probably reveals polysynthetic behavior. We have already seen how productive *bu* is. The most revealing, and actually quite intriguing, aspect of buNs is probably recursion, which is not documented. Although our data does not show lexical category change, buN morphology closely interacts with syntax in various ways (see § 3.2 below). An isolated case of noun incorporation may also be cited at this point, with some dialects of Tashlhit combining the expression *jaḡ ijji/ax laḡ* ‘lit. suffer me/us hunger; I am/we are hungry’ into *jaḡlaḡi/ax*, with subject and verb incorporated. The conclusion to be drawn is that, in addition to

the concatenative, and obtrusively non-concatenative, morphology in Tashlhit, there is a certain degree of polysynthetic behavior, qualifying Tashlhit to be a mildly polysynthetic language.⁸

3.2 Syntax within words

- 26 We now show that the inner noun is actually a potentially syntactically complex NP which can contain coordinated structures and be modified. These aspects further buttress our conceptualization of *bu* as a phrasal affix in Bensoukas (2013a).

3.2.1 Coordination and modification inside *bu*-nouns

- 27 We consider first inner noun coordination (11), where the conjunction expressing addition is underlined:

(11) bu lx^wɖrt d

31 To sum up, inner noun coordination and modification show that buNs can have very complex internal syntactic structure. The No Phrase Constraint is definitely at stake in the formation of these nouns.

3.2.2 Modification and structural ambiguity

32 When the post-modifier of an inner noun is a participle, a PP, or a clause, cases of structural ambiguity may arise. We start with buN+participle configurations in (15):⁹

(15)

a. butgmmi mzzin	i. 'owner of small house'
	ii. 'house owner who is young'
b. id butgmmi mzzin	'owners of small house'
c. id butgmmi mzzinin	'house owners who are young'
d. butg ^w mma mzzin	'owner of houses who is young'
e. butg ^w mma mzzinin	'owner of small houses'
f. id butg ^w mma mzzinin	i. 'owners of small houses'
	ii. 'owners of houses who are young'

33 (15a) and (15f) both display structural ambiguity. (16) shows the ambiguity with two internal constituencies corresponding respectively to whether the participle *mzzin* modifies the inner or the outer noun:

(16) bu+[tgm̄mi mzzin] 'owner of small house'
 [bu+tgm̄mi] mzzin 'house owner who is young'
 id+bu+[tg^wmma mzzinin] 'owners of small houses'
 [id+bu+tg^wmma] mzzinin 'house (Pl.) owners who are young'

34 The second kind of post-modification is that involving a PP or a clause. (17) presents two structures corresponding to *buliqqamt* 'mint seller' and a following PP *n uḍuwwar* 'of the village'. In (17a), the mint seller concerned is the one in the village, while in (17b), we mean the seller of the mint which is grown in the village. In other words, the fact that the PP can modify the outer noun (17a) or the inner noun (17b) makes possible two readings of the buN:

(17) a. bu+liqqamt [n uḍuwwar]
 b. bu+[liqqamt n uḍuwwar]

35 In (18), we present an analogous situation, but this time the post-modifier is the clause 'that comes from Tiznit'. The buN means the seller of mint who comes from Tiznit (18a) and the seller of the mint which comes from Tiznit (18b):

(18) a. bu+liqqamt [lli-d itta]kan ḡ tznit]

b. bu+ [liqqamt lli-d itta]kan γ tznit]

- 36 Note that the ambiguity disappears when buN is in the plural: provided the participle and the noun agree in number, we get two forms (19a-b), corresponding to (18a-b), respectively:

(19) a. id+bu+liqqamt [lli-d (i)tta]kanin γ tznit]

b. id+bu+[liqqamt lli-d itta]kan γ tznit]

3.2.3 The No Phrase Constraint

- 37 Because syntax seems to interfere with buN-formation, buNs pose a challenge relating to the Lexical Integrity Hypothesis (§ 3.1.1). A further complexity relates to the No Phrase Constraint, according to which “no phrase may appear within complex words” (originally in Botha (1983); cited in Spencer (2005)). The main assumption behind the constraint is that in forming words, the bases are other words, roots, or stems, but definitely not phrases.
- 38 In § 3.2, two major aspects of buNs breach the No Phrase Constraint. buNs have been shown to contain coordinated structures inside them. The second type of evidence we have considered shows that the inner nouns can also be subject to quite intricate pre- and post-modification. Concomitantly, a quite interesting array of structural ambiguity can be witnessed with respect to buNs in Tashlhit.
- 39 In a nutshell, the inner nouns of buNs may exhibit a certain level of internal syntactic complexity, a serious challenge to the No Phrase Constraint. Not only are inner nouns simple nouns, but they may correspond to full-fledged phrases as well. This again suggests that *bu* is a phrasal affix.

4. Special number marking: id-pluralization

- 40 As we have seen above, (outer) buNs use a special type of pluralization, concatenating *id* or its F. form *istt*, before *bu* or *mmu*, respectively, a characteristic they share with bab-Ns. Quite distinct from the normal concatenative and non-concatenative pluralizations, id-pluralization has received only sporadic attention (Elmoujahid 1981, 1997; Galand 2010; Sadiqi 1997), suggesting that id-pluralization is at best marginal. Evidence points in the opposite direction. id-pluralization is not a particularity of buNs and bab-Ns. Rather, various morphologically simple and complex nouns use it. The potential number of items concerned is by all means significantly large, making id-pluralization more productive than the other pluralization patterns.

4.1 Morphologically simple nouns

- 41 We start with personal names. Masculine names take the prefix *id*, while feminine ones take *istt* (and alternately *id*):

(20) muḥḥmad - id muḥḥmad faḍma - istt faḍma

ḥasan - id ḥasan ḥiḥa - istt ḥiḥa

braḥim - id braḥim jamna - istt jamna

- 42 Note that the plural *id muḥammad* is distinct from *ajt muḥammad*, a collective noun meaning ‘Mohamed’s family’.¹⁰
- 43 Kinship terms also use id-pluralization. The first three kinship terms below are borrowings from Arabic, because of which they can potentially take id-pluralization. However, the remaining ones are native:

(21) M. Sg. - M. Pl. F. Sg. - F. Pl.
 xali - id xali xalti - istt xalti ‘maternal uncle’
 ḥmmi - id ḥmmi ḥmmti - istt ḥmmti ‘paternal uncle’
 ʒddi - id ʒddi ʒdda - istt ʒdda ‘grandfather’
 dadda - id dadda lalla - istt lalla ‘elder brother’
 baba - id baba(tsn) inna - id inna(tsn) ‘father’

- 44 The third set of items contains words having a certain expressive morphology in that they either have a pejorative meaning or indicate a hideous entity:

(22) baḥḥfu id baḥḥfu ‘naïve person’
 bajbbun id bajbbun ‘fat --’
 ʒuʒʒu id ʒuʒʒu ‘stinking --’
 murrān id murrān ‘callous --’
 xittus id xittus ‘despicable --’
 babbuz id babbuz ‘dog’
 xuxxu id xuxxu ‘monster’
 buḥḥu id buḥḥu ‘monster’

- 45 Note the phonological similarity of some these items, at least as far as their beginnings and their overall prosodic patterns are concerned.
- 46 Finally, borrowings (directly from, or through, Arabic), be they common nouns (23a) or numerical and frequency expressions (23b), take id-plurals. A native numerical expression uses normal pluralization, as in *ifḍ* ‘thousand’ and *sin wafḍan* ‘two thousand’.

(23) a. lkamju id lkamju ‘truck’
 lpaḥbul id lpaḥbul ‘satellite dish’
 lbabbuḥ id lbabbuḥ ‘ship’
 luḥḍinatur id luḥḍinatur ‘computer’
 b. ḥina id ḥina ‘sometimes’
 mijja id mijja ‘hundred’
 ḥḥrin id ḥḥrin ‘twenty’
 alf id walf ‘thousand’
 mljun id mljun ‘million’

- 47 The numbers in (23b) may contain loanwords entirely, or be expressed by combining native and borrowed numbers, the latter taking id-pluralization: *tlt mijja/kraḍ id mijja* ‘three hundred’, *tlt alaf/kraḍ id walf* ‘three thousand’, and *tlata d lmlajn/kraḍ id -mljun* ‘three million’.

4.2 Morphologically complex nouns

- 48 A number of morphologically complex nouns also use id-pluralization. We start with a special class of agentive nouns (24). These are recognizable through their meanings and their morphology, with their initial agentive noun affix *m-*. Compound nouns (25) also use id-pluralization.

- (24) Noun Verb base
 milluṭṭs - id milluṭṭs ṭṭs ‘sleep’
 miṭṭus - id miṭṭus ṭṭs ‘sleep’
 miḍrus - id miḍrus mmaḍrs ‘be improperly slaughtered’
 millus - id millus lls ‘be dirty’
 mikṣuḍ - id mikṣuḍ ikṣuḍ ‘be afraid’
 mixxi - id mixxi xxi ‘defecate’
 (25) mafaman id mafaman ‘water finder’
 frṭaṭṭu id frṭaṭṭu ‘butterfly’
 frṭllis id frṭllis ‘moth’
 slm agg^{wrn} id slm agg^{wrn} ‘moth’
 tall aḍar id/ istt tall aḍar ‘prostitute’
 frd xxi id frd xxi ‘useless person’
 ḥllil ṣruḍ id/istt ḥllil ṣruḍ ‘lazy --’
 ssumm aḍaḍ id ssumm aḍaḍ ‘naïve --’
 ḥḥ awi id ḥḥ awi ‘greedy --’
 laḥ amja id laḥ amja ‘useless --’

49 Another type of nouns which take id-pluralization is the war-noun type. *war* is used to express the notion ‘without’. In certain contexts, *war*, whose feminine is *tar*, is the exact opposite of *bu*:

(26)

		‘work’	‘children’
M.	Sg.	war tawwuri	war tarwa
	Pl.	id war tawwuri	id war tarwa
F.	Sg.	tar tawwuri	tar tarwa
	Pl.	istt tar tawwuri	istt tar tarwa

4.3 id-pluralization: Some issues

- 50 id-pluralization raises at least three issues. First, why would a language need two types of pluralization? Mind that the Tashlhit ‘normal’ type of pluralization is rich and quite complex as it is. A related issue is how to formally predict the nouns undergoing normal pluralization and those undergoing id-pluralization. This hinges on the internal constituency of the nouns in question. Given the internal structure of some of the nouns subject to id-pluralization, especially the buN constructions, one might argue that *id* is an ad-phrasal affix, just like *bu*.
- 51 The second issue ensuing from the formalization of the difference between normal pluralization and id-pluralization is: Does morphological theory need to recognize ad-phrasal pluralization as a conceptual possibility? The facts of Tashlhit do suggest so. On the basis of the complex internal structure of buNs and periphrastic bab-Ns, it seems that id-pluralization does occur with phrasal affixes and bound stems.

- 52 The last issue is related to what it is that buNs and bab-Ns have in common with borrowings, kinship terms, and proper nouns so that they behave in a similar way regarding pluralization. This calls for a certain organization of the lexicon.

5. bu-nouns in the larger Amazigh context

- 53 This section is concerned with buNs from other varieties of Amazigh. Our sources consist of a grammar book, a collection of proverbs, and mainly dictionaries/glossaries.

5.1 Tamazight

- 54 Taifi (1991: 5) states that, in Ait Mguild Tamazight, *bu*, a M. Sg. taking a noun in CS, indicates a relation of belonging in a number of structures (27a). Its feminine counterpart is *m/mm* (27b) (ibid.: 193), and both F. and M. Pl. forms take *id* (ibid.: 50-51), the latter pluralization also being attested with compounds and loanwords (27c).¹¹ Related forms are *bab*, *b-*, *ajt*, and *lal*.

(27) a. bu-tḥanūt ‘owner of the grocery shop’
 bu-wallən ‘the one with eyes; the one with big eyes’
 bu-wdis (adis) ‘-- the (big) belly’
 b. mm-urgaz ‘-- the man; married woman’
 mm-udis ‘-- the belly; pregnant woman’
 mm-iḥdʒamn ‘the woman with tattoos’
 tagrtilt mm-ilqḍən ‘the carpet with colored drawings’
 tamtṭut mm-iḥənʒifən ‘pretentious woman’
 mm-uḫjul ‘owner of the donkey’
 c. id mm-iḥənʒifən ‘pretentious women’
 id bab-n-jigər ‘the owners of the field’
 id lal-uxam ‘the household, F.’
 id k^wniniṛ ‘colonels’
 id məsknunəj-ixxan ‘lit. push-dung; dung-beetle’

- 55 An interesting structure Taifi (1991: 365) mentions is *a bu lalla faḍma n raja* ‘we beseech you father of Mrs. Fatma’, where *bu* takes a noun that is pre-modified.
- 56 A similar situation holds in Ayt Wirra Tamazight (Oussikoum 2013). Frozen buNs take the circumfix *t...t* (M. *bur bbuḍ* ‘snail’; F. *tabur bbuḍt*, p. 395). Otherwise, *bu* and *mm* are preceded by *id* in the plural (*id buj di* ‘pivot animal (in beating)’, p. 399; *id mm i ukka u ʒifn* ‘girls with long hair’, p. 623). The feminine of periphrastic *bab* is *lall*, and both pluralize by the addition of *id* (ibid.: 591). Morphosyntactic complexity is also a characteristic of Ayt Wirra buNs, as in the nouns *bu ixʃ ib nʒ ɾɾ*, ‘the one with the grey hair’ p. 394, and *mm u akku u ^wʒif/id mm i ukka u ʒifn* ‘girl(s) with long hair’, p. 623.

5.2 Figuig

- 57 Our Figuig data comes from Benamara (2013: 199-203). The usual buN morphology is attested overall, although there are some notable differences.

(28) afərdu (p. 31) ‘pestle’ bufərdu id bufərdu tbufərdutt
 fus (p. 238) ‘hand’ bufus id bufus tbufust
 ʒəllaba ‘jellaba’ buʒəllaba id buʒəllaba tbuʒəllabat

akəbbus (p. 55) ‘belly’ bukəbbus id bukəbbus tɔukəbbust
 aqəlqul (p. 105) ‘head’ buqəlqul id buqəlqul(?) tɔuqəlqult
 iɣəss (p. 271) ‘bone’ bujəxsan id bujəxsan tɔujəxsant

- 58 A number of frozen buNs are also listed (ibid.: 199-203). These refer to illnesses (buɔəɰwar ‘fatigue’; bunəggaf ‘asthma’; buzəgg^waɣ ‘measles’; buzəllum ‘sciatica’; buɣatir ‘chickenpox’); plants, animals and insects (buɰəmmu ‘desert spiny lizard’; bufnita ‘insect that defends itself by staying inert’; bururu ‘owl’; busəkka ‘cobra’; busətaf ‘kind of bird’; buɰramba ‘insect that lives in flour’; buxlala ‘desert plant’; bufəkkad ‘wild chicory’); and dates (bufəqqus; buɰəf; buzəɣdal; burəfsu; busəkri; bujfunasən). All of the buNs listed so far have plurals in *id*, and when they do, they have feminine forms with circumfix *t...t*. *bab*-Ns are also attested (p. 191) and form their feminine by *lal/lalt* (p. 287): *bab n tiddart/ lal n tiddart* ‘owner of the house’. Both the masculine and feminine pluralize by adding *id*. Data showing buN morphosyntactic complexity is not readily available, though.
- 59 Two aspects deserve special mention. First, some buNs in Figuig take normal nominal morphology, thus behaving more like frozen buNs.¹²

(29) budi ibuditn tɔudit ‘seller of butter-oil’
 bufusəj ibufusaj tɔbufusəjt ‘right-handed’
 buzəlməd ibuzləmɔdən tɔbuzəlmətt ‘left-handed’

- 60 In Tashlhit, the corresponding buNs all have F. forms in *mmu* and Pl. forms in *id/istt*. More strikingly, Benamara does not list F. *mm* as a correspondent of *bu*. The only forms we managed to find are in (30), and their plurals suggest at first blush buN pluralization. The jury is still out, however, for at least two reasons: initial *m(m)* cannot be established as corresponding to *bu*, and *id*-pluralization in Figuig may also apply to certain action nouns (Benamara 2013: 256).

(30) mmusisi - id mmusisi ‘wagtail’ p. 316
 mundaz - id mundaz ‘hell’ p. 324
 musafəlliɣ - id musafəlliɣ ‘white-crowned wheater’ p. 324

5.3 Standard Moroccan Amazigh

- 61 In their reference grammar of Standard Moroccan Amazigh (St. MA), Boukhris et al. (2008: 36-40) point out the morphology of buNs just in passing. The inner noun is marked for CS, and F. *m* corresponds to *bu* (31a). Both pluralize by adding *id*, as do *bab*-Ns (31b-c). No items are provided that display morphosyntactic complexity.

(31) a. bu iɰllan miɰllan ‘liar’
 b. butgra id butgra ‘turtle’
 butagant id butagant ‘boar’
 bu islman id bu islman ‘fish seller’
 m ufus id m ufus ‘one-armed, F.’
 c. bab n tgm̄mi id bab n tgm̄mi ‘owner of the house’
 lal n uxam id lal n uxam ‘wife’

- 62 In St. MA, buN morphology serves as a basis for coining terms used in the media and especially in grammatical description. In Ameur et al. (2009: 107), the following *bu* and *bab* nouns are meant for media:

- (32) a. bab n tattujt tagldant ‘His royal highness’
- bab n waddur ‘His majesty’
- b. bufiɣɣuf ‘hunger’
- bu lkamiɣa ‘cameraman’
- bu tmzrujt ‘columnist’

63 Likewise, Boumalk and Nait Zerrad (2009) provide the grammatical terms in (33a), taken up in context (33b) (Ameur et al. 2011: 43-44). Some of these involve a modified inner noun.

(33) a.

Sg.	p.	Pl.	p.	
bu jan uskkil	82	id bu jan uskkil	41	‘monoliteral’
bu sin iskkiln	81	id bu sin iskkiln	25	‘biliteral’
bu kraɖ iskkiln	81	id bu kraɖ iskkiln	57	‘triliteral’
bu kkuɣ iskkiln	81	id bu kkuɣ iskkiln	50	‘quadriliteral’
bu usmmud	81	id bu usmmud	57	‘transitive’

- b.
- g d amɣag bu jan uskkil “‘do...” is a monoliteral verb’
- ml ... d imɣagn id bu sin iskkiln “‘show”... are biliteral verbs’
- dr l d amɣag bu kkuɣ iskkiln “‘be blind” is a quadriliteral verb’
- lmd ... d imɣagn id bu kraɖ iskkiln “‘learn”... are triliteral verbs’
- gan imɣagn sin wanawn: amɣag bu usmmud (ɣr, ml...)...
- ‘There are two types of verbs: Transitive verbs (see, show...)...’

5.4 Kabyle

64 According to Dallet (1982: 4-5), βu in Kabyle takes a noun in CS (34a) and has a corresponding F. Sg. m, a M. Pl. aθ, and a F. Pl. suθ (34b). The inner noun shows the same inflectional complexity as in Tashlhit: it can be M. Sg. (34a) as well as F. Sg., M. Pl. and F. Pl. (34c):

(34) a.

- aɣəɬβuɿ ‘bald head’ βu ɣəɬβuɿ p. 812
- aɿəbbuɖ ‘belly’ βu ɿəbbuɖ p. 969
- aɿənsis ‘big belly’ βu ɿənsis p. 993
- aɣəmmaɖ ‘cold (weather)’ βu ɣəmmaɖ ‘rheumatism’ p. 779
- θəllis ‘eye weakness’ βuθəllis (cf. p. 55) ‘partial blindness’ p. 824
- b.
- βu qəɣɣu (>aqəɣɣu p.672) m uqəɣɣu ‘stubborn person’
- βu znaβəɣ (>znaβəɣ p.950) aθ znaβəɣ ‘sb. wearing a mustache’
- m iɣəɖɣɣiɣəɣ p.475 suθ iɣəɖɣɣiɣəɣ p. 5 ‘with flowers’
- suθ θqəɬmunin ‘with hoods’ p. 794

- c.
 izərβuβən (>aʒərβuβ ‘rags’) βu izərβuβən p. 379
 θaxənθusθ ‘frown’ βu θxənθusθ p. 904
 θiddas ‘kind of checkers game’ βu θiddas p. 160
 θixiðas (>θixiðəsθ ‘trick’) βu θixiðas p. 892
 θix^wəbbirin ‘gossip’ βu θx^wəbbirin p. 889
 θixnanasin (> (θ)axnanas(θ) ‘lechery’) βu θəxnanasin p. 904

- 65 bab-Ns are also mentioned, with their F. *lall* (Dallet 1982: 4-441) (βaβ l lla ‘land owner’; *lal bb^waxxam* ‘wife’). The plural of bab-Ns is formed with *imawlan* (*imawlan bb^waçrar n* ‘the owners of the sheep’).
- 66 Concerning morphosyntax, the data available reveals syntax within buNs in the form of modification and complementation. Pre-modifier numbers are attested within buNs as in *βu jiw n i* ‘lit. the one with one horn; unicorn’ (p. 70), *axxam βu snaθ θ bbura* ‘house with two doors; life’ (p. 4; also Nacib 2002: 184), *θaxxamθ m sin ṭwiqan* ‘room with two windows’, and *βu sin w uðmaw n* ‘the one with two faces’ (Nacib 2002: 288). Moreover, post-modification is also attested, as in *βu waçrar n inna* ‘the owner of these sheep’ (Dallet 1982: 4) and *βu θ mgraθ θazuranθ* ‘the one with the strong neck’ (Nacib 2002: 133). Complementation within buNs is another aspect of syntax within words, as in *βu θiçli ð imçsaw n* ‘the one who accompanies shepherds’ (Nacib 2002: 189).

6. Conclusion

- 67 This paper has brought to the fore an oft-overlooked corpus of Tashlhit buNs. We also conducted a comparative approach. The following table summarizes the various buN affixes as well as their periphrastic counterparts.

	M. Sg.	F. Sg.	M. Pl.	F. Pl.
Tashlhit	bu	mm(u)	id bu	istt/id mm(u)
	bab	lal	id bab	istt/id lal
Tamazight	bu	m/mm	id bu	id mm
	bab	lal(l)	id bab	id lal(l)
Figuig	bu	t...t	id bu	ti...in
	bab	lal(t)	id bab	id lal(t)
St. MA	bu	mm	id bu	id mm
	bab	lal	id bab	id lal
Kabyle	βu	m/mm	aθ	suθ
	βaβ	lal(l)	imawlan	imawlan?

- 68 The comparison has revealed a number of affinities as well as differences between the dialects of Amazigh examined. The affinities show that buN formation exhibits more or less the same cross-dialectal complexity.
- 69 Inherent in buN-formation are a number of empirical and theoretical challenges. The inner noun number, gender and case alternations, the periphrastic relationships, the id-pluralization pattern, and the possible recursion of affixes are all interesting aspects from a theoretical and typological stance. Even though buN-formation is a very promising field of inquiry into the morphology and syntax of the language, it has received only scanty treatment in the literature, which shows that we probably still have a long way to go.

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NOTES

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measure (Hommage au professeur Miloud Taifi), FLSH, Saïs-Fès, April 25-26, 2013, where we presented the core analysis of bu-nouns in Tashlhit, we benefited from comments by M. Ameer, F. Boukhris, A. Boumalk, C. Taine-Cheikh, as well as conversations with M. Benlakhdar, A. El Mountassir, F. Saa, and M. Taifi. Finally, we would like to thank a reviewer for comments on the manuscript. The usual disclaimer applies.

We use IPA transcription except for the dot underneath segments for emphatics; ʒ̣ is the emphatic palato-alveolar fricative. Double consonants correspond to geminates. Also, we have adapted the transcriptions in the sources to our protocol.

Abbreviations: Sg.=singular; Pl.=plural; M.=masculine; F.=feminine; N=noun; NP=Noun Phrase; PP=Prepositional Phrase; CS=Construct State; FS= Free State; lit.=literally.

2. We consider *bu* a phrasal affix on the basis of its being bound. Some sources treat buNs as compounds. See Bensoukas (2013a) for arguments against this conception. *bab* is treated therein as a bound word.

3. CS is a case-marking on the noun when it is a post-verbal subject, the object of a preposition or the complement of a numeral (e.g. Basset 1932; Chaker 1988; Guerssel 1983; Jebbour 1991; Saib 1982). CS contrasts with Free State (FS). Generally, CS morphology replaces the initial vowel [a] of M. Sg. nouns by [u] (agajju/bugajju ‘head’) and deletes that vowel in both Sg. and Pl. F. ones (tagajjut/ tgajjut; tig^wjja/ tg^wjja). A special class of nouns maintain their vowel in M. Sg., and CS vowel appears as a glide [w] instead (anu/wanu ‘well’; urti/wurti ‘orchard’). In the F. of these nouns, the initial vowel does not delete (tanut and turtit).

4. The data in (3-4) display two phonological processes. First, vowel assimilation results in *bu/mmu* alternating with *bi/mmi* when the singular or plural inner noun starts with [i] (bijmi, bijbaʃiln). Second, when the CS marking creates a hiatal *[uu], the second vowel turns into the glide [w] (-buwgajju), and an analogous situation holds after [u] is assimilated to [i] (bijbaʃiln). Alternately, one of the vowels may delete (bugajju/mmugajju).

5. “The term periphrasis ... refers to the use of longer, multi-word expressions in place of single words...” In its narrower sense, periphrasis refers to “a multi-word expression...used in place of a single word in an inflectional paradigm...” (Haspelmath 2000: 654). An example is more beautiful/*beautifuler. Spencer (2006: 287) provides a much similar definition and concludes that periphrasis is different from syntax in that periphrastic constructions express grammatical properties or are used derivationally (Ibid.: 293).

6. A reviewer has pointed out that, in some Tashlhit dialects, id-pluralization is used by both M. and F. buNs and suggested that an explanation other than regional variation is possible. In fact, the gender distinction of the plural marker is absent in some dialects, which also seems to be the case in Tamazight and Figuig. Kabyle is different; although *suθ* is used to pluralize F. buNs, the *m* (*m*) is not maintained (see § 5 below). More comparative work is necessary in this respect, and the historical dimension has to be considered, too. At this point, we may prima facie entertain two hypotheses: (i) leveling, involving a simplification of the morphology by using just *id* in plural buNs; or (ii) analogy, resulting in using *istt*, so that buNs have the same feminine plural morphology as the other related nouns (see § 4 below).

7. A related issue is that *bu* is not an inflectional affix, yet it is fully productive. This is incongruous on account of the tendency for derivational affixes to be ‘semi-productive’ and inflectional ones ‘fully productive’.

8. The range of this proposal is yet to be explored. Clearly, a deeper investigation is in order before establishing the extent of this polysynthetic behavior. We presently keep it to the minimum of ‘mildly polysynthetic’ until more substantial evidence is available.

9. Participles in Tashlhit can show number syncretism: *mzzin* ‘small’, for example, can be both singular and plural. When syncretism is involved, the ambiguity becomes even more complicated. We do not pursue this here. In our examples, we do not syncretize for the sake of the clarity of the argument.

10. The Sg. of *ajt* is *gg^w* and its F. is *ultt*. *gg^w* alternates with *u* before a vowel initial noun. These forms occur in some kinship terms like *g^wma*/ Pl. *ajtma* ‘lit. the one from my mother; my brother’ and *ultma*/ Pl. *isttma* ‘my sister’, which are synchronically frozen expressions. Similar synchronically decomposable words are M. *gg^w ugadir*/ *u tznit* and F. *ultt ugadir* / *ultt tznit*, and their plurals *ajt ugadir/tznit* and *istt ugadir/tznit* ‘the one from Agadir/Tiznit’.

11. Taifi (1991: 658) mentions in the entry to *ist* that, in addition to being the F. Pl. corresponding to *ajt*, it corresponds to F. Sg. *mm/m*. However, no examples of the latter use are provided.

12. A reviewer has rightly pointed out that the buN facts of Figuig are interesting and that further analysis than we have been able to provide is possible. It seems to us that in Figuig buN morphology is simplified in the feminine and maintained in the plural. The facts are not simple, though, since id-pluralization is used even with some action nouns (see Benamara 2013). Once more, more comparative and diachronic work is necessary.

ABSTRACTS

This paper presents a corpus of Tashlhit bu-nouns, in which *bu* generally expresses the possessor of what the inner noun refers to. Comparison with other dialects of Amazigh is undertaken, revealing the cross-dialectal complexity of this type of nominal formation. Notwithstanding their morphosyntactic intricacy, which challenges Greenberg’s Universal 28, the Lexical Integrity Hypothesis and the No Phrase Constraint, bu-nouns have been dealt with only sporadically and have at times even been overlooked. The presentation will shed light on the inflectional alternations inner bu-nouns exhibit, the existence of an alternative periphrastic expression, the pluralization pattern of these nouns, their alienable vs. inalienable possession patterns, as well as the possible recursion of the bu-noun affixes.

Les noms en bu- en tachelhit. Un corpus morpho-syntaxique complexe souvent négligé
 Nous présentons dans le présent article un corpus des noms tachelhite en bu, où bu exprime généralement le possesseur de ce que désigne le nom interne. Une approche comparatiste avec d’autres parlers amazighes révèle la complexité inter-dialectale de ce type de noms. La complexité morphosyntaxique des noms en bu pose des défis pour l’Universal 28 de Greenberg, l’Hypothèse de l’Intégrité Lexicale et l’Absence de Syntagme (No Phrase Constraint). Néanmoins, ces noms n’ont été traités que de façon sporadique et ont parfois même été négligés. La présentation mettra en évidence les alternances flexionnelles inhérentes aux noms en bu, l’existence d’une expression périphrastique analogue, la pluralisation de ces noms, les modes de possession aliénable et inaliénable qui les caractérisent, ainsi que la récurrence des affixes des noms en bu.

INDEX

Mots-clés: noms en bu-, pluriels en id-, morphologie, morphosyntaxe, tachelhite, amazighe

Keywords: bu-nouns, id-pluralization, morphology, morphosyntax, Tashlhit, Amazigh

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