The Negative Existential Cycle from a historical-comparative perspective

Edited by

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Chapter 1

The negative existential cycle in Bantu

Rasmus Bernander

Maud Devos

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Renewal of negation has received ample study in Bantu languages. Still, the relevant literature does not mention a cross-linguistically recurrent source of standard negation, i.e., the existential negator. The present paper aims to find out whether this gap in the literature is indicative of the absence of the Negative Existential Cycle (NEC) in Bantu languages. It presents a first account of the expression of negative existence in a geographically diverse sample of 93 Bantu languages. Bantu negative existential constructions are shown to display a high degree of formal variation both within dedicated and non-dedicated constructions. Although such variation is indicative of change, existential negators do not tend to induce changes at the same level as standard negation. The only clear cases of the spread of an existential negator to the domain of standard negation in this study appear to be prompted by sustained language contact.

Keywords: Bantu languages, negation, language change, morphology

missing affiliations

1 Introduction

The Bantu language family comprises some 350–500 languages spoken across much of Central, Eastern and Southern Africa. According to Grollemund et al. (2015), these languages originate from a proto-variety of Bantu, estimated to have been spoken roughly 5000 years ago in the eastern parts of present-day northwest Cameroon. Many Bantu languages exhibit a dominant SVO word order. They are primarily head-marking, have a highly agglutinative morphology and

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a rich verbal complex in which inflectional and derivational affixes join to an obligatory verb stem. The Bantu languages are also characterised by a system of noun classes – a form of grammatical gender. By convention, these classes are numbered with odd and even pairings commonly representing singular and plural forms. Many Bantu languages also have locative classes containing only locative nouns. The most widespread locative classes are referred to as 16, 17 and 18 and are marked by **pa-*, **kʊ-* and **mʊ-* respectively. These prefixes have been reconstructed for Proto-Bantu and refer to specific, general and internal location.[1] The locative noun classes will be central to the discussion in this paper, as they are ubiquitous in the formation of both affirmative and negative existentials in Bantu, as will become clear further below.

should Proto-Bantu have an index entry?

The Bantu languages exhibit a high degree of variation in the encoding of negation within the clause. However, some recurrent patterns can be observed. Negation most commonly involves verbal affixes, typically either a pre-initial marker (appearing before the subject prefix) or a post-initial marker (following the subject prefix). The former tends to be reserved for negation in declarative main clauses (i.e. standard negation), whereas the latter is commonly used for negation in non-standard clause types such as infinitive, subjunctive, imperative, relative and dependent clauses. Examples of pre-initial and post-initial negative strategies are given in (1a) and (1b), respectively.[2] As can be seen in (1c), Swahili uses the standard negative marker *ha-* in negative existential clauses.

(1) Swahili (G42)

a. *ha-tu-ta-som-a* *ki-tabu hiki*
NEG-SM1PL-FUT-read-FV 7-book 7.DEM
'We will not read this book.'

b. *u-si-end-e*
SM2-NEG-GO-SBJV
'Do not go!'

[1] Other less prevalent strategies for locative noun formation include the use of the class 23/25 locative prefix **i-* (cf. Grégoire 1975; Maho 1999) and the locative suffix *-(i)ni* (Samson & Schadeberg 1994).

[2] The classification of the Bantu languages in this paper is based on Maho (2009), which is an updated version of Guthrie's (1971) classification, in which languages are divided into geographic zones which are assigned letters. These groupings are in turn divided into smaller groups indicated by the decimal digits. The final digit represents a specific language within such a group. Letters and additional digits after this digit refer to varieties of the same language. The ISO-codes of the languages of the sample are given in Table 1 the Appendix. Languages which are discussed but are not part of the sample have their ISO-code in the running text.

c. *ha-ku-na* *ma-tata*
NEG-SM17-COM 6-problem
'There are no problems.'

Other recurrent negation strategies involve pre-verbal and post-verbal enclitics/particles, and periphrastic constructions employing an inherently negative auxiliary and an infinitive. Negative stacking – the combination of different negation strategies for the expression of negation – is also attested. Such variation is indicative of change. Although renewal of negation in Bantu has received ample attention in previous studies (e.g. Kamba Muzenga 1981; Güldemann 1996; 1999; Devos & Van der Auwera 2013; Devos & Van Olmen 2013), there has been no systematic study of the form and variation of negative existential constructions, nor of changes indicative of a negative existential cycle (Croft 1991; Veselinova 2016). This paper seeks to address this gap in the literature through an examination of negative existentials across a sample of 93 Bantu languages, as listed (along with their ISO-codes) in Table 1 in the Appendix. The aim is to provide the first exploration of negative existentials in Bantu languages, as well as to examine the extent to which the stages of the negative existential cycle, as set out by Croft (1991) and Veselinova (2016), can be identified in the language family.[3]

The paper is structured as follows: In §2, we examine the renewal of negative strategies across the Bantu languages. In §3, we present an overview of affirmative existential constructions in Bantu, looking at both dedicated and non-dedicated strategies for forming existentials. In §4, we look at the distribution of the stages of the negative existential cycle across the Bantu sample. In §5, we chart the development from non-dedicated negative existentials to dedicated negative existentials. In §6, we explore additional processes of change. We first look at usage extensions beyond verbal negation (§6.1) and towards marked negation types (§6.2). We then discuss the possible involvement of existential negators in instantiations of the Jespersen Cycle (§6.3) and a specific development attested in varieties of the East African Bantu language Swahili (§6.4). §7 consists of a summary and draws a number of conclusions.

2 The renewal of negation in Bantu

In this section we discuss three recurrent pathways of change in the expression of negation in Bantu languages. The first two concern the genesis and renewal

[3] It should be noted that the depth of our analysis naturally depends on the descriptive status of the languages under examination.

of the two main Bantu negation strategies, i.e., the pre-initial and the post-initial negation strategy. Güldemann (1996; 1999) identifies the origin of the former in the merger between an illocutionary particle (mostly commonly a negative copula) and a (dependent) finite verb form. He finds evidence for this pathway, *inter alia*, in the recurrent formal similarity between negative copulas and pre-initial negative markers, as is the case in Nyanja.

(2) Nyanja (N31a, Stevick & Hollander 1965: 174, cited from Güldemann 1999: 568)

a. *si-ti-dza-pit-a*
NEG-SM1PL-FUT-go-FV
'We won't go.'

b. *lelo si laciwili*
today NEG.COP Tuesday
'Today is not Tuesday.'

Still following Güldemann (1996; 1999), the post-initial strategy is assumed to have its origin in a periphrastic construction consisting of an inherently negative auxiliary followed by an infinitive. Evidence for this second pathway comes from the functional overlap between these constructions in different present-day languages. Both post-initial negation and periphrastic negation involving a negative auxiliary are typically used for the negation of marked clauses, i.e., to negate infinitives, subjunctives, imperatives, relatives and dependent clauses. Compare the use of the post-initial strategy in example (1b) from Swahili with the use of the periphrastic strategy for prohibition in Manda shown in (3).

(3) Manda (N11, Bernander 2018: 664)
Ø-kótúk-áyi ku-túmbúl-a ku-lóv-a sómba
Ø-NEG-IPFV.SBJV 15-begin-INF 15-fish-INF 10.fish
'Don't begin to fish.'

Bernander (2017; 2018) offers a language-internal instantiation of this pathway. In Manda, the cessative auxiliary *-kotok-* 'leave (off), stop'[4] has spread from indicating prohibition to indicating the other marked negation types identified by Güldemann (1996; 1999), with the exception of negative relatives. The Manda data also further add weight to Nurse's (2008: 191) claim that prohibitives are "a major conduit through which innovation occurs". At first, the prohibitive marker spreads to other more marked negation types, as seen in Manda. However, if

[4] Note that *-kotok-* becomes *-kotuk-* before the imperfective suffix, cf. (3)

Nurse's (2008: 193, fn 25) suggestion that several post-initial negative markers in northwestern Bantu languages of zones A and C are derived from the cessative auxiliary **dèk* 'let, let go, cease, allow' (Bastin et al. 2002) holds true, further spread to standard negation may also be attested. In Nugunu, for example, the post-initial negative marker *-de-* is used for all negation types, i.e., for negation of both marked clauses and standard clauses (Nurse 2007). Examples (4a) and (4b) show the use of *-de-* for prohibition and standard negation.[5]

(4) Nugunu (A62, Nurse 2007)

a. *ɔ-dɔ-gɔ́ba*
SM2SG-NEG-beat
'do not beat'

b. *a-de-mbá-fâ*
SM1-NEG-PFV-give
's/he hasn't given'

The third pathway of change concerns recurrent instances of double negation in Bantu languages, i.e., the combination of the (inherited) pre-initial or post-initial negative marker and a post-verbal negative marker in a single negative strategy, as illustrated in (5) from Ruwund.

(5) Ruwund (L53, Nash 1993: 696)
kè-z-in-à-p
NEG.SM1-come-PRS.CONT-FV-NEG
'S/he is not coming.'

Double negative marking is suggestive of a Jespersen Cycle, a process whereby an additional negator is first used to reinforce negation, then becomes an obligatory part of negation and eventually ends up as the only exponent of negation. This final stage, with only a single negator, is illustrated with the Manda example in (6).

(6) Manda (N11, Bernander 2017: 308)
ni-ng'-gán-a lépa ófísa wa usaláma
SM1SG-OM1-like-FV NEG security officer
'I do not like the security officer.'

Devos & Van der Auwera (2013) show that the Jespersen Cycles can indeed be observed in Bantu languages. This observation follows the lead of several Bantu

[5] Note that *-de-* becomes *-dɔ-* after [ɔ] in Nugunu.

grammarians, as well as Güldemann (1996: 256–258), Güldemann & Hagemeijer (2006: 7), Güldemann (2008: 165), Nurse (2008: 57), and Güldemann (2011: 117), who link double negation in Bantu to its most famous example in French *ne … pas*. Devos & Van der Auwera (2013) identify several sources of post-verbal negative markers and show that the post-verbal negative marker may become the only exponent of negation but that a Jespersen Cycle might also set in at this doubling stage, resulting in triple or even quadruple negation (for an example of the latter see Devos et al. 2010). Triple negation in Salampasu [slx] is shown in (7).

missing bibl. item Ngala-mulume 1977!

(7) Salampasu (L51, **Ngalamulume1977**, cited from Devos & Van der Auwera 2013: 210)
káá-dédéki-kú *ny-tóndú ba*
NEG.SP1-cut.PFV-NEG 3-tree NEG
'He has not cut a tree.'

3 Existential constructions in Bantu

As will become apparent in §4 and §5, a significant number of Bantu languages expresses negative existence merely through (standard) negation of the affirmative existential construction. This fact merits a brief presentation of the versatile tactics for forming affirmative existentials found across Bantu, before embarking on the main topic, i.e., their negative counterparts. The results presented in this section are based on Bernander et al. (2018), an investigation into the expression of affirmative existentials across Bantu, departing from a definition of such expressions in relation to plain locational clauses. In line with Creissels (2014; 2015), existentials are conceptualized as providing an alternative way of encoding the prototypical figure-ground relationship of a plain locational. That is, in existentials, the ground rather than the figure is the perspectival center. Several different tactics for expressing existence have been found in different languages, but also within a single language variety. Of these, an initial division can be made between those expressions of existential predication which, except for word order changes, are not different from locational clauses (§3.1) and those constructions that are dedicated to the expression of existential predication (§3.2).

3.1 Non-dedicated existentials

In roughly 20% of the cross-Bantu sample, existential predication was found to be formally identical to locational existential predication (Bernander et al. 2018).

However, although there are no morphosyntactic differences between a plain locational construction and existential predication in these cases, it should be noted that the existentials are recurrently pragmatically marked. Typically, there is a shift to presentational word order, where the (logical) subject ends up in post-verbal position. This tendency is also pervasive in both dedicated existential constructions and negative existentials and it adheres to a wider cross-linguistic tendency (see e.g. Freeze 1992; Bentley et al. 2013).[6] Example (8a) is an instance of an existential marker in Makhuwa which is formally under-specified in relation to the plain locational in (8b).

(8) Makhuwa (P31, van der Wal 2009: 109)

a. *aa-rí nlopwana m-motsá*
SM1.PST-be 1.man 1-one
'There was a man.'

b. *eliívúrú e-rí wa-meétsa*
9.book SM9-be 16-table
'The book is on the table.'

Both instances of predication contain the same copula indexed with the relevant regular subject agreement. The only difference between the two expressions is the word order permutation of the existential proposition in (8a), relative to the canonical SVO order of the language, as found in (8b). Another example comes from (Standard) Swahili, where it is once again only the word order which distinguishes the existential predication of (9a) from the plain locational one in (9b).

(9) Swahili (G42, Marten 2013: 46)

a. *zi-po n-chi amba-zo hu-tegeme-a ki-limo*
SM10-LOC.COP16 10-country REL-REFCD10 HAB-depend-FV 7-farming
'There are countries which depend on agriculture.'

b. *ki-tabu ki-po meza=ni*
7-book SM7-LOC.COP16 6.table=LOC
'The book is on the table.'

[6] In fact, the only examples of languages which do not exhibit such a permutation are spoken in the very north-western part of the Bantu speaking region. These languages are therefore in close or direct contact with the "Macro-Sudan belt" (Güldemann 2008). The Macro-Sudan belt is a linguistic area characterized as being "devoid of dedicated existential predicative constructions, and with rigid constituent order in locational clauses" (Creissels 2014: 22).

It should be noted that the existential predication exemplified in (9a) represents only one of two possible tactics for the formation of existentials in (Standard) Swahili, the other tactic being the comitative-existential type which was exemplified in (1c) in §1 and which is further discussed in §3.2 below. This situation in Swahili reflects a wider tendency of non-dedicated existential predications to alternate with a dedicated existential construction in a single language.

3.2 Dedicated existentials

Two of Creissels' (2014; 2015) seven types of existential predication are frequently and widely attested, namely the "locative-existential" type and the "comitative-existential" type (Bernander et al. 2018).

The locative-existential type is characterized by the presence of a locative element which is absent from the plain locational clause. Locative-existential constructions exhibit differing degrees of specialization and semantic bleaching of this locative element, but its locative origin is commonly transparent. Typically, the locative element stems from what was originally a locative-referential enclitic which attached to a copula verb and in certain contexts became reinterpreted as marking existential predication. The other common locative-existential typ.c.mprises constructions where the subject marker of the predicator has shifted from referring to the (logical) subject to taking agreement from a locative noun class. Both of these subcategories of locative-existentials can be illustrated by Cuwabo, which makes equal use of the two categories. Thus, in example (10a), the existential is formed with the copula verb *-kala* and an enclitic from the locative class 17, the subject marker of the verb agreeing with the post-verbal (logical) subject. In example (10b), however, there is no enclitic (although the copula verb is the same). Instead, the existential construction is formed with the locative class 17 as a subject marker.

(10) Cuwabo (P34, Guérois 2015: 465, 466)

a. *nsáká ni-modhá o-á-kála=wo mwáná-mwíyaná*
5.time 5-one SM1-PST.IPFV.CJ-be-17.LOC 1.child-1.woman
'One day, there was a girl.'

b. *o-ttóló=ni ókúlé o-hi-ikálá fúlóóri*
17-well=LOC DEM SM17-PFV.DJ-be 9a.flower
'There at the well there is a flower …'

In a small set of Bantu languages, the existential construction consists of the combination of these two subtypes, as in the example from Lusoga in (11) where

the copula verb is inflected with both a subject marker and an enclitic from the locative noun class 18.

(11) Lusoga (JE16, Nabirye p.c. 2016)
mu i-díilo *mu-lí-mu* *ebí-sampá*
18 5-living.room SM18-be=LOC18 8-mat
'In the living room there are mats.'

In some languages, univerbation of a locative element and a copula or light verb has given rise to two types of 'locative/existential predicates'. The first type involves univerbation of a copula or light verb and a locative enclitic. The Makhuwa predicate *-háavo* in (12) can reasonably be thought to derive from the light verb *-hala* 'stay, remain' to which the class 16 locative enclitic *=vo* is added. Locative post-finals are not (or no longer) productively used in Makhuwa and *-háavo* never occurs without the locative enclitic.

(12) Makhuwa (P31, van der Wal 2009: 109)
y-aá-háavo *e-námá* *e-motsá*
SM9-PST-be.present 9-animal 9-one
'There was an animal …'

The second type involves univerbation of an erstwhile locative object prefix and a copula. As suggested in Bernander et al. (2018), the Mawiha predicate *-pawa* in (13) has its origin in merger of the class 16 locative object prefix *-pa-* with the copula *-wa* 'be'. The (near-) absence of locative object prefixes as obligatory locative elements in Bantu existential constructions of the locative-existential type is probably due to the limited distribution of locative object prefixes in Bantu languages more generally (Marlo 2015; Zeller).

(13) Mawiha (P25, Harries 1940: 105)
mu-ɲande *mwake* *mu-ndi-pawa* *ŵa-nu*
18-9.house 18.POSS1 SM18-PFV-be.present 2-people
'There are people in his house.'

The second of the two major types of dedicated existential constructions found across the language family is the comitative-existential type. In such a construction, the figure is encoded in a way that is similar to the phrase representing the companion in comitative predication. As illustrated with the example from Digo in (14), Bantu comitative-existential constructions are typically marked with a reflex of the Proto-Bantu reconstructed conjunction/preposition **na* 'and/with' (Bastin et al. 2002).

(14) Digo (E73, Nicolle 2013: 320)
hipho kare ku-a-kala na mu-tu m-mwenga
long ago SM17-PST-be with 1.person 1-man
'Long ago, there was a man.'

As pointed out by Creissels (2014), this type of existential construction is distinctive for the Bantu language family. Note that a locative element is present in the construction in (14) as well, in the form of a subject marker of the locative class 17. This is representative for almost all comitative-existential constructions across Bantu. It should also be stressed that, although the 'basic' meaning of *na* is comitative 'with', it is a polysemic element and in those languages where it has developed an existential reading, it typically also functions as a "possessive copula" (Marten 2013; Gibson et al. 2018), thus resembling the much more wide-spread cross-linguistic strategy of forming existentials from possessive predicates (Creissels 2013).

4 Negative existentials and the NEC in the language sample

After a brief description of the expression of negation and affirmative existence in Bantu languages, we now turn to the main topic of the paper – the expression of negative existentials. Our account of the Bantu findings is framed on the basis of the model of the Negative Existential Cycle (NEC), following Croft (1991) and Veselinova (2013; 2014; 2016). According to this model, standard negation markers can develop out of negative existential markers through three stable stages, referred to as A, B and C. Three additional transitory stages, referred to as A~B, B~C and C~A, may also be involved. Each of these variationist stages simultaneously represent synchronic types. Consequently, every language of our sample has been examined and classified according to whether it belongs to one of the three 'stable' types/stages of the NEC or whether it represents a 'transitory' type/stage. The observation made by Veselinova (2014; 2016) that several overlapping types/stages may co-occur in a single language, has also been taken into account. In the following discussion we further attempt to make diachronic inferences of historical change from synchronic language internal and external variation in relation to the pathway(s) of change posited in this model.

The variation regarding the expression of negative existentials across Bantu is summarized in Figure 1. The Figure is based on Veselinova (2016: 146), in turn adapted from Croft (1991: 6), where the boxes with solid lines represent stable

types/stages and the boxes indicated by dashed lines represent the transitional types/stages. (A more fine-grained and language-specific account of the formation of negative existential predication can be found in Table 1 in the Appendix). Note that the total number in Figure 1 is 100, and thus exceeds the total sample of 93 languages in this study. This alludes to the fact that 7 languages can be classified as belonging to several types/stages.

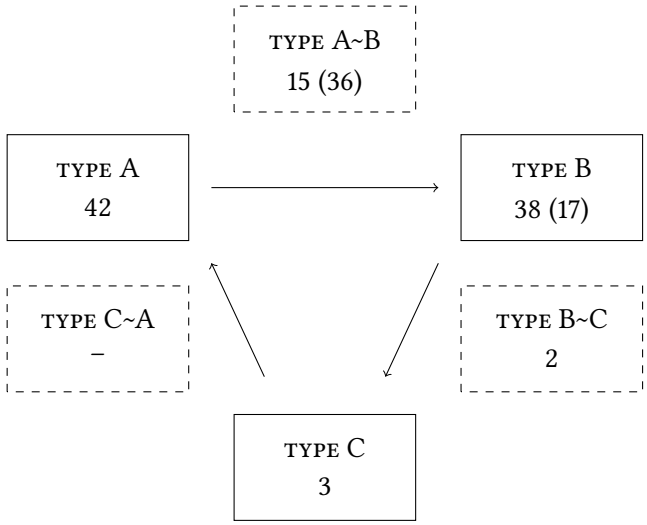

Figure 1: Stages of the NEC across the Bantu sample

As can be seen in Figure 1, the majority of existential negators across Bantu pertain to the 'earlier' stages of the cycle, thus adhering to cross-linguistically induced generalizations regarding rate of frequency (Croft 1991; Veselinova 2016). This tendency is arguably even stronger if it is taken into account that the three C types and one of the B~C types of this figure are plausibly the result of contact induced change involving one and the same source language, i.e., Swahili. A word of caution is warranted here however, regarding the presentation of the data more generally but specifically regarding the relationship between negative existentials of the stable Type B and those of Type A~B. In many cases, our sources have only provided examples with negative existential constructions in the present tense. This has made it difficult to determine with certainty whether a language really makes use of a negative existential of Type B or A~B.[7] We there-

vector graphics are preferred

[7] Of course, such a problem could also hold for other contextual restrictions which are not

fore decided to use two numbers. The first number (without parentheses) represents the liberal count which takes the absence of a description of other means of negative existential predication as an indication of a special Type B status of the negative existential marker in question. The second number (in parentheses) represents the alternative, more conservative count where the absence of examples of usage outside of the present temporal domain is taken to indicate that the negative existential is of Type A~B.

The following two sections each discuss one half of the cycle. In §5, we focus on Type A and B and the transition processes between these types. In §6, we address the rarer, additional types and hence further developed stages within the cycle found in Bantu, including those induced by contact with Swahili. In §6, we also raise the question of meaning extensions of negative existentials in Bantu which are not necessarily connected to the NEC.

5 From non-dedicated to dedicated negative existentials in Bantu

In this section, we discuss instantiations of the first half of the NEC, that is, A, B and A~B. As seen in Figure 1 above, these three types/stages constitute the vast majority of instantiations of the NEC in Bantu, in accordance with the observed general cross-linguistic tendency (Veselinova 2016; Croft 1991). §5.1 discusses constructions which apply standard negation to affirmative existential constructions, i.e. negative existentials of Type A. §5.2 continues with an account of dedicated negative existentials, either as part of a Type A~B or a Type B situation, and their evolution.

5.1 Negative existentials using standard negation

As can be seen in Figure 1, a majority of negative existentials across Bantu are formed in a compositional fashion by applying standard negation strategies to the affirmative existential construction. That is, negative existentials of Type A in Croft's (1991) typology. Interestingly, although a majority of Bantu languages stick to the compositional formation of negative existentials, there is still a lot of variation in the expression of Type A negative existentials. This reflects the formal variation within the expression of both standard negation (§2), and affirmative existence (§3) in Bantu.

revealed in the data.

All instantiations of the negative existential of Type A across Bantu involve standard negation strategies. However, languages vary (both internally and externally) as to whether standard negation is applied to a non-dedicated or, as in the great majority (roughly three quarters) of the cases, dedicated affirmative existential. In the latter case, languages vary in terms of which specific type of dedicated affirmative existential is involved, thus prompting more fine-grained distinctions within the single category of Type A negative existentials.

An example of a Bantu language where standard negation is applied to a non-dedicated existential construction is Swahili. In (15), the standard pre-initial negative marker is attached to a type of existential predication which is described as under-specified in relation to plain locational predication in §3.1 (cf. the Swahili examples in 9).

(15) Swahili (G42, Kanijo p.c. 2018)
ha-yu-po *nguluwe* *mw-enye* *ma-bawa*
NEG-SM1-LOCCOP16 9.pig 1-having 6-wings
'There is no pig with wings.'

There are also languages in which standard negation applies to the dedicated existential constructions discussed in §3.2. Thus, Ikizu and Kisi are examples of standard negation combined with dedicated locative-existential constructions. In the Ikizu case, the affirmative existential involves an obligatory locative enclitic (16), whereas the existential in Kisi is characterized by a locative subject marker, as in (17). Note that the strategy used in standard negation in Kisi is a post-verbal negative particle.

(16) Ikizu (JE402, Luke 1:61, Gray 2013: 54)
Ndora *mʉ-bahiiri* *banyu* *ta-ree-ho* *wi* *riina* *riyo!*
look 18-2.blood.relative 2.POSS2PL NEG-be-LOC16 1.of 5.name 5.DEM2
'Look, among your blood relatives there is no-one of that name!'

(17) Kisi (G67, Ngonyani 2011: 157)
n-dofi *a-bhʊlile* *ku-yele* *he* *bhu-sipa* *ma-gono* *agho*
1-fisherman SM1-say.PFV 17-be.PFV NEG 14-sardine 6-day 6.DEM2
'The fisherman said there were no sardines in those days.'

Similarly, standard negation may apply to affirmative existential constructions of the comitative type. Swahili is a case in point. In addition to the non-dedicated existential construction illustrated in (15), Swahili makes use of a dedicated comitative-existential. The corresponding negative construction simply adds the standard

pre-initial negative marker *ha-*. Recall, that these constructions typically also involve locative marking, in this case the class 16 locative subject marker *pa-*.

(18) Swahili (G42, King'ei & Ndalu 1989: 25)
ha-pa-na m-tu a-si-ye-fanya ma-kosa
NEG-SM16-COM 1-person 1-NEG-REL1-make 6-mistake
'There is no person who does not make mistakes.'

Some languages that are categorized as belonging to Stage A because they employ standard negation strategies in negative existential constructions, display minor irregularities. Since the irregularities are typically attested in present tense contexts they could be suggestive of the emergence of a dedicated negative existential. Makwe is a case in point. One of the negative existential strategies found in Makwe involves standard negation in combination with a locative/existential predicate (*-pali*) derived from the univerbation of a class 16 object prefix *-pa-* and the copula *-li* 'be', as seen in (19a). The corresponding affirmative construction also makes use of a locative/existential predicate (*-pwawa*) which, however, is most probably the result of the merger of a class 16 object prefix *-pa-* with the verb *-wa* 'be' (rather than *-li*), as seen in (19b). The negative existential predicate *-pali* is restricted to present tense contexts. Other temporal contexts make use of *-pwawa* in combination with standard negation (19c).

intended reference to line a?

here referring to line b?

and here, to line c?

(19) Makwe (P231, *fieldnotes*, Devos 2008: 375)
a. *a-ya-paáli ma-tatiízo*
NEG-SM6-exist 6-problem
'There are no problems.'
b. *u-ni-pwáawa mw-íimbo*
SM3-PFV-exist 3-song
'There is a song.'
c. *a-ku-na-pwaw-íije na sukáali*
NEG-SM17-PST-exist-PFV with 9.sugar
'There was no sugar available.'

Another example comes from Shangaji. Shangaji has a dedicated locative-existential strategy marked by an obligatory locative enclitic, as seen in (20a). This can be negated through standard negation which involves the pre-initial negative marker *kha-*, as in (20b). However, the copula verb *-wa*, present in the affirmative construction, is reduced to zero in the negative construction, thus turning

intended reference to line a?

and here referring to b?

the locative enclitic into a locative copula.[8]

(20) Shangaji (P312, Devos, *fieldnotes*)

a. *leélo zi-waá-pho pwilímwíithi*
today SP10-be-LOC16 10.mosquito
'Today there are (a lot of) mosquitos.'

b. *leélo kha-zí-wó ʈthonddóowa o-túulu*
today NEG-SP10-LOC17 10.star 17-above
'Today there are no stars in the sky.'

5.2 The rise of dedicated negative existential strategies

52 of the languages – more than half of our sample – can be considered to belong to Type B or Type A~B of the NEC, thus having a dedicated negative existential strategy which does not merely involve the application of standard negation to an affirmative existential construction. In this section we first explore the etymology of dedicated negative existential markers across the Bantu family. We then go on to address the transition between stage A and B, i.e., the emergence of dedicated negative existentials in Bantu.

5.2.1 Dedicated negative existential constructions

Dedicated negative existential constructions in Bantu are often marked by inherently negative lexemes in combination with locative marking. There are two main lexical sources involved in such dedicated negative existential constructions: verbs and adjectives/adverbs. Both categories can be etymologically linked to a negative source meaning, which adheres to a common cross-linguistic pattern (Veselinova 2013). Two geographically more restricted patterns have been identified as well. The first concerns non-verbal predication whereby the noun referring to the figure is followed by a negative particle dedicated to the expression of negative existence (and other non-verbal predication types). The second involves locative subject marking in combination with a verbal enclitic with an as yet unclear etymology. This section takes a closer look at all four sources, starting with the least unexpected one.

Bantu languages commonly recruit inherently negative verbs as negators (see Givón 1973; 2001: 382–383). This is typically the case in prohibitive propositions

[8] Note that the affirmative existential construction makes use of a series of locative demonstrative enclitics (*-pho*, *-kho* and *-mo*) whereas the negative existential construction uses a series of locative relative enclitics (*-vo*, *-wo* and *-mo*).

and, by extension, other types of more marked verbal negation (see e.g. Bernander 2018, Devos & Van Olmen 2013, Nurse 2008: 191–193, Güldemann 1999, and also the brief discussion in §2 of this paper). Our investigation shows that lexical verbs of similar denotations are often also recruited as negative existential markers in Bantu, always in combination with locative marking. This can be seen in the examples below from Ruwund and Kagulu.

(21) Ruwund (L53, Nash 1993: 839)
p-ìikil *côm*
SM16-not.be 7.thing
'There is nothing there.'

(22) Kagulu (G12, Petzell 2008: 167)
kw-ichak-a *wa-nhu*
SM17-be.without-FV 2-people
'There are no people.'

Arguably, similar processes of semantic bleaching apply to those verbs recruited as negative existentials as to those becoming negative auxiliaries in marked negation types. An important difference is the construction as a whole, insofar as negative verbs which become negative existentials are always inflected with locative subject markers. Thus, locative marking is a persistent feature in both affirmative and negative existential constructions across Bantu. This adheres to the close contiguity in meaning between location and existence given the basic conceptualization that an entity occupying a space also exists (Lakoff 1987: 407; see also Gaeta 2013, Koch 2012) and by analogy does not exist if it is not occupying a space.

The most typical original meaning of a negative existential verb is 'be without, lack', as in the example from Kagulu in (22) above. Other examples include *-vʊla* and *-bhʊlá* in Kinga (G65) and Bende (F12) respectively (from Proto-Bantu **-bʊd-* 'lack; be lacking; be lost' (Bastin et al. 2002)), *-gaya* 'lack' in Bena (G63) and Hehe (G62), and *-hela* 'lack' in Pogolo (G51) and Ndamba (G52). It is worth noting that the meanings 'be without, lack' express the polar denotation of the affirmative comitative-existential strategy, discussed in §3. This suggests that this conceptualization of existentials, typical for Bantu languages, applies to the formation of negative existentials even beyond those of Type A.[9] More generally, this fact

[9] Interesting in this regard is Gogo (G11) which appears to form negative existentials by applying standard negation to a comitative-existential construction, whereas it employs affirmative constructions of the locative-existential type.

can be seen to reflect the conceptual interaction and semantic contiguity not only between location and existence, but also between possession and existence both synchronically and diachronically (see e.g. Koch 1999, 2012, Heine 1997; see also Veselinova 2013).

This being said, however, there are also lexical sources which do not denote negative possession, but which still arguably have an inherently negative meaning. In several cases the source is a lexical verb simply meaning 'not be', in accordance with a more general cross-linguistic tendency (see **Veselinova2013b**; Veselinova 2016). One such example is the negative existential *tìti* in Duala (A24), which according to Ittmann (1939; 1976) stems from an archaic verb *tìtá* 'not be, not exist' inflected for the perfect. Another example is *-ììkil* in Ruwund, as seen in (21) above. Lusoga (JE16), Bena (G63) and Vwanji (G66), in turn, appear to make use of a reflex of the reconstructed verb **-gìd-* 'abstain from, avoid, refuse'. A final example of a negative existential derived from a negative verbal source in Bantu is *-fwa* 'die' which is used in both Kisanga (L35) and Kaonde, as illustrated in (23).

missing bibl. item Veselinova 2013b!

(23) Kaonde (L41, Foster 1960: 30)
késha tu-kékala na ma-tába lélo ka-fwá-ko
tomorrow SM1PL-be COM NCP6-corn today NEG-die-LOC17
'Tomorrow we shall have corn, today there is none.'

In total, 22 languages – almost a quarter of our sample – resort to inherently negative verbs in the formation of negative existential constructions, whether this is as the sole marker or together with other strategies.

However, the most frequent and widespread source of negative existentials in our sample of Bantu languages is not a verb but rather an adjectival or adverbial form. The most typical case involves reflexes of the Proto-Bantu stem **-tśpś* 'only, empty, vain' (Bastin et al. 2002; Angenot-Bastin 1977) in combination with a locative class marker. Examples (24) and (25) from Kwangali and Ndengeleko exemplify this pattern. Note that there is a mismatch in class agreement between the *-tśpś* form and the locative nominal argument in (25). This lack of automatic agreement suggests that the referential locative reading has been lost, which points to a further decategorialization of the construction as a whole.

(24) Kwangali (K33, Dammann 1957: 108)
mo-ru-pasa m(u)-tupu mema
18-11-bowl 18-empty 6.water
'In the bowl there is no water.'

(25) Ndengeleko (P11, Ström 2013: 284)
n-tʊ́pʊ́ oomba ku-lw-íi
18-empty 9/10.fish 17-11-river
'There is no fish in the river.'

Nine languages of our sample have a negative existential involving **-tʊ́pʊ́* with a locative prefix. The other 7 languages not discussed above are summarized in (26).

removed *below*

(26) **Languages with a negative existential derived from *-tʊpʊ**

F.12	Bende	*hátuhú ~ kútuhú*
F.22	Nyamwezi	*hadʊhʊ ~ ndʊhʊ*
G.35	Luguru	*muduhu*
L.33	Luba	*patupu ~ kutupu ~ mutupu*
L.35	Kisanga	*patupu ~ kutupu ~ mutu(pu)*
P.13	Matumbi	*patʊpʊ ~ kutʊpʊ ~ ntʊpʊ*
P.14	Ngindo	*haduhu*

Some other words with roughly the same meaning have also been recruited into negative existential constructions. This can be seen in the form *-bule* which is found in Swahili (G42) and which is thought to derive from the Arabic word *bure* [برع] 'bestow of free will', and, by extension 'vain' (Johnson 1939: 42; TUKI 2014: 48). A similar form presumably borrowed into the language from Swahili can also be seen in Kami, a highly endangered language spoken in Tanzania which has been in sustained contact with Swahili.

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(27) Kami (G36, Petzell & Aunio 2016)
Sweden ha-bule tangawizi
Sweden 16-NEG.EX 9/10.ginger
'There is no ginger in Sweden.'

Another example is the form *-waka* 'only, vain, naked' recruited as a negative existential marker in Ngoni (N.12) and also in Manda, as exemplified in (28).

(28) Manda (N11, Bernander 2017: 335)
sénde pa-wáka?
9/10.money 16-empty
'Is there no money (left)?'

In a set of languages spoken in parts of Gabon, Congo and the Democratic Republic of Congo (DRC), negative existence is expressed by non-verbal predication, i.e., the figure is simply followed by a negative particle. Duma is a case in

point. The copula *li* which is present in the affirmative existential construction in (29a) is not attested in the negative existential construction in (29b) and, whereas standard negation involves both pre-initial *ka-* and clause-final *vɛ* (29c), only the latter is used for the expression of negative existence.

(29) Duma (B51)

a. affirmative existential (Adam 1954: 148)
mungubili mu li i tswa ngundu
1.pig SM1 COP LOC garden
'There is a pig in the garden.'

b. negative existential (Adam 1954: 148)
baãti bo vɛ
2.porter PERS.2 NEG
'There are no porters.'

c. standard negation (Mickala-Manfoumbi 1988: 144)
besú ka-li-bóma mútu vɛ
PERS.1PL NEG-SM1PL-kill 1.person NEG
'We do not kill the man.'

Languages in this area typically have a discontinuous or double standard negation strategy which combines a pre-verbal, pre-initial or post-initial negative marker with a second post-verbal (either immediately following the verb or in clause-final position) negative marker (Devos & Van der Auwera 2013). In some languages, the negative marker used for the expression of negative existence is identical to the standard post-verbal negative marker, as seen in the Duma example (29) and also in (30) from Nduumo (cf. also §5.2.2).

(30) Nduumo (B63, Adam 1954: 141, 148)

a. standard negation
bisi ka li dji buyu ng'i
PERS.1PL NEG SM1pl eat honey NEG
'We have not eaten the honey.'

b. negative existential
abiti ng'i
porter NEG
'There are no porters.'

However, in a few languages the existential negator formally differs from the

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post-verbal standard negator, as shown by the examples in (31) from the closely related language Mbete.

(31) Mbete (B61, Adam 1954: 141, 148)

a. standard negation
bisi le ha dja bvugi ng'i
PERS.1PL SM1PL NEG eat honey NEG
'We have not eaten the honey.'

b. negative existential
abiti kali
porter NEG
'There are no porters.'

It should be noted that the Nduumo standard post-verbal negative marker in (30) can be replaced by the negative marker *onyang'a*, i.e., *abiti onyang'a* 'there are no porters'. The semantics and the usage range of Mbete form *kali* and the Nduumo form *onyang'a* are not entirely clear. **Biton1969** gives the translation equivalents 'no' and 'none, nil', respectively, suggesting an origin in a negative answer particle in Mbete and a negative indefinite pronoun in Nduumo. However, meanings reminiscent of **-tópó* are attested as well. As can be seen in (32), both elements can be used to express 'empty'.

(32) a. Mbete (B61, **Biton1969**)
djyala kali
'empty handed'

b. Nduumo (B63, **Biton1969**)
bvyala onyang'a
'empty handed'

missing bibl. item Biton 1969 (or Biton & Adam 1969?)

Whether the existential negator is identical or not to the post-verbal standard negator, we consider this particular type of negative existential construction as specialized, i.e., of type A~B (if only used in the present tense) or of type B (and plausibly even type B~C or C if the existential negator indeed spreads to standard negation). In §6.3 we discuss the possible enrolment of these existential negators in the expression of standard negation through a Jespersen Cycle. §6.1 addresses the possible usage extension of these existential negators to other types of non-verbal predication and vice versa.

Finally, there is a small set of languages spoken in a contiguous area in Malawi and Zambia where negative existence is expressed by adding an enclitic to affirmative existential predication of the locative existential type. The enclitics are *-je*

in Tumbuka (N21), *-be* in Chewa/Nyanja (N31), *-ye*/*-ve* in Nsenga (N41) and *-je* in Nyungwe (N43). The etymology of these arguably cognate forms is as yet unclear to us. In at least the Chewa/Nyanja case, the enclitic displays a curious polysemy between expressing negative existence/possession when combined with the copula *-li*/*-ri*, and the phasal meaning 'still' when combined with a verb or even a noun (Hetherwick 1916: 116; Watkins 1937: 97, 99; Price 1953: 209; Stevick & Hollander 1965: 116, 205, 279; Paas 2004: 20–21; Mchombo 2004: 60, 68; Kiso 2012: 150, 153, 161).

to be indexed as Chewa/Nya

(33) Chewa/Nyanja (N31, Stevick & Hollander 1965: 117, 205, 279)

a. negative possession
ndi-li-be *ma-lalanje*
SM1SG-be-NEG/POSS 6-orange
'I don't have any oranges.'

b. negative existencial
kuno *ku-li-be* *ma-lalanje ambili*
17.DEM1 17-COP-NEG/EXIST 6-oranges 6.many
'There aren't many oranges around here.'

c. persistive
a-ku-gon-a-be
SM1-PRS-sleep-PERS
'He's still sleeping.'

Stevick & Hollander (1965: 279) express some doubts about the tonal identity between negative existential *-be* and persistive *-be*. This, together with the fact that 'still' does not appear to be a common source of negative existence or vice versa (Heine et al. 1993 and Heine & Kuteva 2002, for example, do not mention a conceptual shift in either direction), might suggest that homonymy rather than polysemy is at play here. However, the semantic connection between 'still' and 'empty' which, as has been shown above, is a common source of negative existentials in Bantu, is confirmed by data from Tumbuka (N21). Tumbuka has an element *waka*, cognate with Manda and Ngoni *-waka*, which is used adverbially to express 'empty(ly), vain' and in combination with the copula *-ri* to express 'still', as illustrated in (34).

(34) Tumbuka (N21, Young 1932: 120–121)

a. empty, vain

i. *w-iz-a* *waka*
SM1-come-PFV empty
'S/he has come empty-handed / for no particular purpose.'

ii. *w-a-gon-a* *waka*
SM1-PST-sleep-FI empty
'S/he slept without food / without the evening meal.'

b. persistive
zuwa li-ri *waka*
5.sun SM5-COP still
'The sun is still shining / There is still daylight.'

added a level of embedding a > a.i-ii

This might suggest that the lexical source of *-be* is similarly an element expressing 'empty' and that this element has developed multiple grammatical functions.

As a final note, it should be mentioned that we are even less sure about the etymology of other instances of Bantu negative existentials in our sample. This might of course have had an effect on the outcome presented in this section.

5.2.2 Variation between standardly negated and dedicated negative existentials

In accordance with cross-linguistic tendencies (Veselinova 2016), there are several examples of Bantu languages in the transition stage A~B where a negative existential may be expressed both through applying standard negation strategies (to either a non-dedicated or a dedicated affirmative existential) or, alternatively, a dedicated negative existential marker. As is typical in these cases, the usage of the specialized existential is confined to the present, standard negation being employed in other temporal contexts (Veselinova 2013; 2016). Luba is a case in point. In the present tense, Luba can make use of a dedicated negative existential strategy involving *-tupu*, a reflex of **-tópó*, discussed in the previous section. In all other temporal contexts, standard negation is applied to the affirmative existential of the locative-existential type, as can be seen in (35).

(35) Luba (L33, Beckett 1951: 126)

a. *le* *ku-di* *lu-pete?* *ku-tupu-lo*
INT 17-COP 11-knife? 17-empty-11
'Is there a knife? There is not.'

b. *ke-kwa-di-po* *mwepo nansha mu-tyetye*
NEG-17.PST-COP-NEG 3.salt even 3-little
'There was not even a little salt.'

Ombo constitutes a similar case. In the present tense, the dedicated inherently negative verb *-áfa* 'not be' is recruited for the expression of negative existence (36a), whereas other temporal contexts resort to standard negation applied to an affirmative existential of the comitative-existential type, as seen in (36b).

(36) Ombo (C76, **Meeussen1952**)

a. *k-áfa* *lʊ-kula*
SM17-not.be 11-knife
'There is no knife.'

b. *ku-tá-íká* *la-nsímba*
SM17-NEG-be.PST COM-10.lion
'There were no lions.'

For 18 of our languages (almost a fifth), the sources claim that such a situation holds. However, given the fact that not many sources provide an extensive account of the expression of negative existence, let alone the variation within, it is likely that this number is actually higher. Furthermore, dedicated negative existentials might have emerged after the publication of the sources, seeing that negative existentials typically are subject to renewal (Veselinova 2016) and Bantu languages in particular are characterized by rapid innovation and change (Nurse 2008: 25). An indication of such a situation, with what appears to be an emerging dedicated negative existential, comes from Kinga, a language which can be described as belonging to variationist Type/Stage A~B. In Kinga, a negative existential proposition may be produced by employing standard negation strategies, as in (37a). Alternatively, a dedicated negative existential marker may be used, derived from the inherently negative verb *-vʉla* 'lack' and inflected with a locative subject marker, as in (37b).

missing bibl. item Meeussen 1952!

(37) Kinga (G67, Eaton p.c. 2017)

a. *ni-pa-li* *i-soda* *(~/nɪpali ɪsoda)*
NEG-SM16-COP 9-soda
'There's no soda.'

b. *kʊ-vʊl-a* *soda*
SM17-lack-FV 9.soda
'There is no soda.'

However, there is no account at all of the negative existential use of *-vʉla* in the grammar on Kinga by Wolff (1905). What is more, according to Helen Eaton (pers. comm.), *-vʉla* with a negative existential only turns up five times in the

p.c.?

New Testament, whereas the version with standard negation is far more frequent. Similarly, the neighboring and closely related language Bena is claimed to employ standard negation with the affirmative existential construction (Morrison 2011: 378). However, going through an annotated collection of Bena narratives (Eaton 2015a), we found not only one, but two negative existential markers transparently derived from inherently negative verbs plus locative marking.[10] In fact, there is a set of languages spread across the Bantu speaking area which appears to make use of several dedicated negative existentials. Other examples of languages with several dedicated negative existentials are the Mozambican variety of Ngoni, Bende in Tanzania, Luba in DRC and Lusoga in Uganda (cf. Table 1 in the Appendix). Unfortunately, there is seldom any elaboration on the functional differences between these various markers. In the case of Bena, however, there might be dialectal or other lectal differences at play, Bena being characterized by relatively extensive language-internal variation (cf. Morrison 2011: 30–35; **Morrison2015**; Mitterhofer 2013).

missing bibl. item Morrison 2015!

6 Further processes of change

The focus of this section are the later language types and stages of the NEC as reflected in the Bantu sample. Specifically, it looks at types/stages where the negative existential marker has expanded into the domain of standard (verbal) negation. As can be deduced from Figure 1 in §4, this does not seem to be a very common trait of the Bantu languages. There is a possibility that some of the illocutionary particles hypothesized by Güldemann (1999) to have developed into standard negation markers, as described in §2, ultimately stem from negative existential markers. However, we have failed to find any indications of such a scenario in our data. In fact, it seems that in those cases where the negative existential marker has acquired an extended function as a standard (verbal) negator in Bantu, there are typically specific socio-linguistic factors such as migration and language contact at play. Such a case is addressed in §6.4. First, however, we discuss usage extensions of the negative existential marker outside of verbal negation (§6.1). Then we turn to usage extensions involving marked negation types (§6.2) and finally a possible case of intertwinement between the negative existential cycle and the Jespersen Cycle is discussed (§6.3).

[10] It actually appears that the negative existentials in these examples consist of the stacking of two locative markers. This is not unheard of for other construals of dedicated (negative) existentials in Bantu, however.

6.1 Extensions of negative existentials outside of verbal negation

A first usage extension concerns the cross-linguistically well-attested development of negative answer particles ('no') and negative indefinites ('nothing' / 'nobody') out of negative existential forms (see Schwegler 1988; Croft 1991; Veselinova 2014; 2016). Instantiations of such a change from internal negator into external negator are found at least in Ombo (C76), Nyamwezi (F22), Ngoni (N12), Matumbi (P13) and Yao (P21).

In Yao, *ngapagwa* 'nothing, no one, never' is derived from a negative existential form involving standard negation applied to an existential predicator *-pagwa* which is itself derived from a merger between the locative object prefix *-pa-* and the light verb *-gwa* 'fall, occur' (Sanderson 1922: 72, Whiteley 1966: 174). Compare the examples in (38).

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(38) Yao (P21, Sanderson 1922: 72)

a. *m-ku-saka chichi? ngapagwa*
SM2PL-PRS-want what? nothing
'What do you want? Nothing.'

b. *nyama nga-ni-si-pagwa*
9.game NEG-PST-SM9-exist
'There was no game.'

Another example of this usage extension can be seen in Matumbi where the negative answer particle *kutupo* 'no', exemplified in (39a), is clearly related to the negative existential form, which can be seen in (39b).

(39) Matumbi (P13, Krumm 1912: 46, Odden 1996: 304)

a. *kutupo, ba-bi Kibata*
no SM2-be Kibata
'No, they are in Kibata.'

b. *uláa ndɔpɔ́*
9.rain 18.vain
'There is no rain.'

Similarly, in Ombo, the negative existential form *káfa* 'there is not', consisting of a class 17 subject prefix *ku-* and the inherently negative verb -'afa 'not be', can be used as a negative answer particle expressing 'no' (**Meeussen1952**).

Another type of usage extension relates to the fact that negative existentials, negative plain locational clauses and negative possessives are often marked in

similar ways in Bantu languages. As touched upon earlier in §5.2.1, there is a conceptual closeness and consequently a semantic contiguity between such expressions which can be observed more generally across languages. In Bantu, this conceptual closeness is reflected in both affirmative and negative existential constructions. Dedicated affirmative constructions are typically of the locative or the comitative/possessive type. Moreover, locative marking is a salient feature in both types of existential construction. This is also true for dedicated negative existential constructions which furthermore often involve lexical items with the meaning 'lack, be without'. Heine (1997) and Heine & Kuteva (2002: 241–242) postulate a unidirectional pathway going from possessive predicates to existential constructions. However, it is interesting to note that there are also examples of the reverse pathway in our data, i.e., from negative existential to negative possessive. That this is indeed the case can be deduced from the transparent locative marking and lexical meanings involved in the possessive constructions in question. Tanzanian Ngoni can be used to illustrate this. Just like its neighbour and closest relative Manda (discussed in §5.2.1, example (28)) Ngoni expresses negative existentials through a construction consisting of a locative prefix attached to a lexeme *waka* originally meaning 'empty, naked, only'. However, as can be seen in (40), in Ngoni it is also possible to express negative possessive propositions with the negative existential, merely by the addition of a subject possessor.

(40) Ngoni (N12, Ebner 1939: 32)
ne' *kwawaka chi-pula*
PERS.1SG NEG.EX 7-knife
'I don't have a knife.'

Koch (2012) discusses similar affirmative constructions in Mandarin, a topic-prominent language (as are the Bantu languages). He suggests that the possessive reading stems from the introduction of a second, thematic participant, introduced as a topic. Thus, to paraphrase example (40) above, resulting in a construction which roughly reads as 'as for me, there is no knife'. The introduced topic has then been reinterpreted (and conventionalized) as a possessor, the existential pivot as the possessee and consequently the whole existential construction as a construction expressing possession. Although further and more thorough investigation is needed, this explanation seems to hold for negative existentials becoming negative possessives in Bantu languages.

This being said, when a language uses one and the same (dedicated) strategy for the negation of possessive, plain locational and existential clauses and the etymology of the particular strategy is unclear, it is hard to decide from where

the strategy started out. Tetela presents such a case. As can be seen in (41), the invariable *keéma* (different from standard negation which involves a pre-initial or a post-initial negative marker) is used for the negation of plain locational (41a), possessive (41b) and existential clauses (41c).

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(41) Tetela (C71, Labaere 1970: 100, 102)

a. *owánji keéma-kɔ́*
1.chief NEG-LOC17
'The chief is not there.'

b. *dimí keéma langéló léngo*
PERS1SG NEG with_village there
'I do not have a dwelling there.'

c. *keéma olemp ɛlɔ́*
NEG work today
'There is no work today.'

The etymology of *keéma* is unclear. It is described as an invariable, expressing 'no, not, nothing, there is nothing (to say, to ask)' (Hagendorens 1957: 155) but as explained above, such meanings could also have derived from its use as a negative existential marker. Languages like Nduumo, Mbete and Duma similarly use one and the same (dedicated) strategy for the negation of locational, possessive and existential clauses. This is illustrated in (42) for Mbete. Again, the etymology of the dedicated negator *kali* cannot be ascertained (cf. also the discussion in §5.2.1).

(42) Mbete (B61, Adam 1954: 141, 148)

a. *bisi ho tca cwaha kali*
PERS.1PL LOC16 bush NEG
'We are not in the bush.'

b. *me bila kali*
PERS.1SG food NEG
'I do not have food.'

c. *ekwo kali*
cassava NEG
'There is no cassava.'

6.2 From negative existential to other marked negation types: the Ruwund case

In Ruwund, negative existence can be expressed by applying standard negation, consisting of the discontinuous negative marker *ka-…-p*, to the affirmative existential construction. This is illustrated in (43).

(43) Ruwund (L53, Nash 1993: 839)
kì-kw-aa-d-àà-p *mi-long*
NEG-SM17-PST-be-FV-NEG 4-problem
'There weren't any problems.'

In present tense contexts, a dedicated construction involving the forms *pìikil* (cf. (21)) and *kwìikil* built from the negative verb *-iikil* and a locative subject prefix can be used.

(44) Ruwund (L53, Nash 1993: 839)
kw-ìikil *mi-long*
SM17-be.not 4-problem
'There are no problems.'

These forms have spread to other marked negation types as they are also used to express prohibitives (45a) and other negative deontic meanings (45b), as well as occurring in tag questions (45c) and in a special construction expressing a particular type of metalinguistic negation (conveying strong affirmation) (45d). Recall that the locative subject marking – of class 17 in the two previous examples and of class 16 in the examples in (45a) and (45c) – suggests that the usage expansion indeed started out from the negative existential forms.

(45) Ruwund (L53, Nash 1993: 842)

a. *p-ìikil* *wa-mu-lej*
SM16-be.not/PROH 2SG.NARR-OM1-tell
'Don't tell her/him.'

b. *kw-ìikil* *ku-làb* *ku shikòl*
SM17-be.not 15-be.late 17 school
'Better not be late for school.'

c. *p-ìikil* *wà-cì-landin*
SM16-be.not/TAG SM1.PST-OM7-buy.PFV
'S/he did not buy it, did s/he?'

d. *a-màn-a mar kw-ìikil mu-tàpu*
SM2-saw-PST 6.difficulty SM17-be.not 3-way/META
'They suffered terribly.' (lit.: 'They suffered terribly, there is no way.')

6.3 Existential negators enrolling in a Jespersen Cycle?

A number of closely related Bantu languages spoken in parts of Gabon, Congo and DRC express negative existence through non-verbal predication whereby the figure for which non-existence is predicated is followed by a negative particle (see also §5.2.1). These languages typically make use of a discontinuous negative marker consisting of an inherited (verbal) negator and a second post-verbal negator for the expression of standard negation. Regarding the relation between the existential negator and the second standard negator, a curious variation is observed. First, there are languages where the existential and the post-verbal standard negator are identical, cf. (30) from Nduumo. Additional examples come from Iyaa (46) and Engungwel (47).

(46) Iyaa (B73c, Mouandza 2001: 439, 436)

a. standard negation
ndé a á-yěne pé ku mu-síti
PERS1 NEG SM1-go.PFV NEG 17 3-forest
'He hasn't gone to the forest.'

b. negative existential
bàátà pé
2.person NEG
'There are no people.'

(47) Engungwel (B72a, Rurangwa 1982: 162; Raharimanantsoa p.c. 2017)

a. standard negation
mɛ ka ŋgyɛ́ olá wɛ
PERS.1SG NEG SM1SG.know 15.cook NEG
'I do not know how to cook.'

b. negative existential
onsə ã-ngyel ngingi wɛ/pyɛ[11]
in 6-soup 1.fly NEG
'There is no fly in the soup.'

[11] We are not sure whether this variation is attested in standard negation too.

Next, there are languages where negative existence and standard negation involve formally different (post-verbal) negative markers, cf. (31) from Mbete. Tiene in (48) and Beembe in (49) also show this pattern.

(48) Tiene (B81, Ellington 1977: 138, 137)

a. standard negation
ka-lé-môn-e nuká kɔ
NEG-SM1PL-see-PFV animal NEG
'We didn't see the animal.'

b. negative existential
eyaame wɛ
thing NEG
'Nothing is the matter / There is nothing.'

(49) Beembe (H11, Nsayi 1984: 155, 162)

a. standard negation
mè n-síí-tín-à mù-káándá kò
PERS.1SG SM1SG-NEG-write.PF 3-letter NEG
'I have not written a letter.'

b. negative existential
mà-bèénbè mŏ pè
6-pigeon PERS.6 NEG
'There are no pigeons.'

The form of the (dedicated) existential negators is very similar to the form of the standard / existential negators in (46) and (47) above. Could this be indicative of a spread from existential negation (or more largely negation of non-verbal predication, cf. the discussion in §5.2.2) to standard negation through enrolment into a Jespersen Cycle? The fact that there are also languages, like Dzing in (50) below, which do not display (regular) discontinuous standard negation but still express negative existence through the combination of a figure and a negative particle seems to add weight to such a hypothesis.

(50) Dzing (B86, Mertens 1938: 378, 333)

a. standard negation
bi tuŋ ku lundzaar muti wu
PERS1pl ?? NEG SM1pl.climb 3.tree DEM3
'We do not climb that tree.'

b. existential negation
muuŋ mu bisaa ati
3.salt LOC18 8.food NEG
'There is no salt on the food.'

What is more, Mertens (1938: 378) indicates that double negation involving the post-verbal negative marker *ati* does occur, be it very sparingly, to *'renforcer une négation'* [to strengthen negation] in Dzing. This could be interpreted as the beginning of a Jespersen Cycle recruiting an existential negator to strengthen standard negation. Croft (1991) suggests a similar path for the Australian language Mara and the Wintuan language Wintu. **AuweraKrasnoukhova2019** (this volume) explicitly attribute the use of the existential negator in standard negation in these two languages to a Jespersen trajectory. Still, a note of caution is needed. Bantu post-verbal negators are known to be prone to borrowing (Nurse 2008: 180). Formally similar post-verbal standard negative markers, as in the closely related languages in (46) to (47), could thus be ascribed to language contact rather than to a language-internal usage extension of an existential negator. Both scenarios could involve an intermediary step whereby the existential negator developed negative indefinite meanings such as 'no, nothing, none' (cf. §6.1) and was then recruited in a Jespersen Cycle with or without borrowing. However, we know too little about the etymology of these post-verbal negative elements to be certain of this.

viite: Auwera, Krasnoukhova & Vossen tässä teoksessa

6.4 *hapana* 'there is not, no' in Swahili and beyond

This section discusses the case of *hapana*, one of few examples from Bantu where an original negative existential has broken into the domain of standard (verbal) negation. However, as already mentioned, such an extension in use has taken place in pidgins and creoles and under specific socio-linguistic circumstances of contact. Similar to what has been described for the development of Russian *net* in Sino-Russian pidgin (Veselinova 2013; 2016), it seems that the extension in use of *hapana* comes from its earlier development in Standard Swahili into a proposition-external negator. That is, the form *hapana* is used in Standard Swahili as a negative existential of the comitative type, i.e., 'there is not with' (cf. (18) above), but also as a negative answer word as illustrated in (51).

(51) Swahili (G42)
U-na-kwenda Bagamoyo? Hapana.
SM2SG-PRS-go Bagamoyo? no
'Are you going to Bagamoyo? No.'

The word *hapana* has thus developed from a negative existential to also expressing proposition-external negation, which, in turn, has facilitated its reconceptualization into a proposition-internal, viz. standard, negator. Veselinova (2013; 2016) suggests that this development is specifically prominent in contact varieties where the language competence is relatively low and the word 'no', being frequent (and salient), is easily reinterpreted as a main negator. Our investigation lends further support to this hypothesis.

To begin with, there is the case of Kisetla which is "a pidginized form of Swahili spoken between Europeans and Africans in those parts of Kenya where there were, or still are, large European settlements" (Vitale 1980: 51). In the Kisetla variety, *hapana* has generalized over all negative constructions. As shown already in examples (1a) and (1b) in §1, in Standard Swahili, sentential negation involves the addition of negative prefixes, taking either the form of a pre-initial marker *ha-* or a post-initial marker *-si-* (appearing in non-main clause contexts). However, in contrast to the situation in Standard Swahili, in Kisetla *hapana* can appear in both main clause and non-main clause contexts as the sole marker of negation. This can be seen in (52a) and (52b).

(52) Kisetla (G40C, Vitale 1980: 57–58)

a. *yeye* *hapana oa*
PERS.3sg NEG marry.FV
'He has not married.'

b. *hapana pig-a mimi*
NEG hit-FV PERS.1sg
'Don't (you) hit me!'

separate index entry or sub-entry?

A similar process of change can be seen to have occurred in Bunia Swahili. Bunia Swahili is a Congolese variety of Swahili which has been heavily impacted by Central Sudanic languages (Nassenstein 2017, p.c.). In Bunia Swahili, it is not only the case that *hapana* has been recruited as a standard negator, it has also been further decategorialized and eroded from a free-standing word to an inflectional prefix *-pa-*. This fact, illustrated in (53) below, indicates that a new form-meaning pair differing from the original negative existential has emerged in Bunia Swahili.

(53) Bunia Swahili (no Guthrie code, Nassenstein p.c. 2016)
Ba-li-kwa *tembey-aka na* *bayonette, ba-kisu ivi,*
SM3PL-PAST1-be walk-PAST2 COM 9.bayonet 2-knife like.that

ba-pa-li-kwa *tembey-aka na* *bunduki.*
SM3PL-NEG-PAST1-be walk-PAST2 COM 9.rifle
'They were walking around with bayonets, knives of that kind, they were not walking around with firearms.'

Finally, Schicho (1992) discusses the introduction of *hapana* into standard negation in yet another Swahili variety, namely Lubumbashi Swahili. In this case, however, *hapana* has been recruited as the second, 'emphatic' post-verbal exponent of discontinuous negation marking *á la* stage II of the Jespersen Cycle (cf. van der Auwera 2009). This is, in turn, reminiscent of a more general pattern across Bantu where post-verbal negative particles originate from proposition-external negators (see Devos & Van der Auwera 2013).

also a separate entry?

(54) Lubumbashi Swahili (G40F, Schicho 1992: 84)
Ha-ba-wez-i *ku-mu-pig-a* *hapana*
NEG-SM2-can-NEG.PRS 15-OM1-hit-INF NEG
'They won't beat him.'

It would seem that it is not only in pidginized forms of Swahili that *hapana* has been reanalysed into a (proposition-internal) verbal negator. Thus, Nurse (2007) accounts for an interesting case in Pogolo (G51). According to him, it is likely that *hapana* was borrowed as a consequence of the earlier presence of colonial sugar plantations in the Pogolo speaking area, where Swahili served as a lingua franca. An eroded version of *hapana*, *(ha)pa-*, has fused with the verbal word in Pogolo where it functions as a (prefixal) verbal negator, as seen in (55).

(55) Pogolo (G51, Nurse 2007)
hapa-tu-hemer-a
NEG-SM1pl-buy-FV
'we are not buying'

The use of *hapana* as a verbal negator has not spread to all contexts in Pogolo, and past and relative constructions make use of the original post-verbal negator *ndili*. In relation to the NEC, this would suggest that Pogolo is a language of Type B~C, i.e. a language where a marker originating from a negative existential has expanded into marking standard negation, albeit not in all contexts. However, such a conclusion is problematic, taking into account that *hapana* was introduced in the language as a negative answer word and is not used to mark negative existential predicates in Pogolo. Although the data are slim on this matter, it would seem that negative existentials instead are marked with either the construction

pi-hera (i.e. similar to in neighbouring Ndamba, for which see §5.2.1), or standard negation (Hendle 1907). Taken together, this means that Pogolo is to be characterized as belonging to both Type A~B and Type B~C.

7 Summary and conclusions

The expression of negation in Bantu languages is known to be prone to renewal. This also applies to negative existentials which display considerable synchronic variation.

As accounted for in this study, there is a high percentage of Bantu languages which apply standard negation strategies to affirmative existential constructions in order to express negative existentials. Within this type, a high degree of formal variation is attested due to variation in both the formation of affirmative existentials and the expression of standard negation in Bantu languages. Within the category of dedicated negative existentials formally different constructions are also attested. Languages sharing a similar source for a dedicated marker are often scattered across the Bantu speaking area. On the other hand, there are large areas consisting of more or less a continuum of language varieties which all belong to Type/Stage A. Taken together, this suggests that the functional domain of negative existence has been subject to constant renewal and innovation within the Bantu language family.

Still, the expansion of existential negators into the domain of standard verbal negation does not appear to be a common pathway of change among the Bantu languages. According to Veselinova (2016), the most frequent way a negative existential is recruited into expressing standard negation in her sample is through its use with nominalized verb forms. However, there are hardly any indications of negative existentials being used with nominalized verb forms in Bantu. As shown by Güldemann (1996; 1999), negation of nominalized forms of lexical verbs – typically derived into noun class 15 – is instead recurrently achieved by use of post-initial negation markers (56), or inherently negative auxiliaries (57), negation strategies reserved for more marked propositions in Bantu (cf. §1 & §2).

(56) Shangaji (P312, Devos *fieldnotes*)
khaácu y' oo-sí-pwéch-ey-a váháali
9.cashew 9.CONN 15-NEG-cleave-STAT-INF 16-place
'a cashew nut which is not broken anywhere'

(57) Manda (N11, Bernander 2018: 659)
ku-kótók-a kú-y-a wákápi
15-NEG-INF 15-come-INF alone
'to not be alone'

This could serve as an explanation as to why negative existentials typically do not expand towards the domain of standard negation in the Bantu language family. Nevertheless, as discussed in §5.2.1, a regionally restricted set of languages do use a non-verbal construction for the expression of negative existence, i.e., the figure is simply followed by a negative particle. Interestingly, the same negative particle is used in these languages for the negation of other types of non-verbal predication too, typically involving possessive or locational clauses but in some languages also prohibitives or infinitives. In Mbete, the existential negator *kali* is said to sometimes replace the standard post-verbal negative marker *ni* in infinitival clauses, as seen in (58).

(58) Mbete (B61, Adam 1954: 141)
me hoyia kali
PERS.1sg 15-know-INF NEG
'not knowing [it]'

In §6.3, it was suggested that in some of these languages, existential negators like *kali* might have become exponents of standard negation through enrolment in a Jespersen Cycle. Whether the enrolment in a Jespersen Cycle involved the development of negative indefinite meanings, is hard to tell.

However, that is exactly what appears to have happened in Lubumbashi Swahili, where the use of the Standard Swahili existential negator *hapana* 'there is not' as an obligatory exponent of double negation was prompted by its use as a proposition-external negation expressing 'no'.

Otherwise, intertwining between the negative existential cycle and the Jespersen Cycle appears to occur only rarely in Bantu languages. Instead, a Jespersen Cycle can side-track a potential Negative Existential Cycle by directly recruiting the same negative lexemes to strengthen standard negation. Kami can serve to illustrate this. As seen in (27), repeated here as (59a), negative existentials make use of the negative lexeme *bule* preceded by a locative prefix. The same lexeme, but without the locative marking, can be used to strengthen (standard) negation, as illustrated in (59b).

(59) Kami (G36, Petzell & Aunio 2016, Petzell p.c. 2016)
a. existential negation

Sweden ha-bule tangawizi
Sweden 16-NEG.EX 9/10.ginger
'There is no ginger in Sweden.'

b. standard negation
si-m-towile bule Faisal
NEG.1SC-OM1-hit.PFV NEG Faisal
'I have NOT hit Faisal.'

In the end, the only clear cases of a negative existential marker becoming the standard negative marker occur in language varieties heavily influenced by contact. At least two Swahili varieties and one language heavily influenced by Swahili use (a reduced form of) the external negator *hapana* 'no' derived from a comitative existential negator in Standard Swahili for the expression of standard negation.

Other types of usage expansion are attested, though. The first concerns the formal similarity between negation strategies used for negating existential, locational and possessive clauses and, in some languages, all types of non-verbal predication. However, in the absence of a clear etymology for the negative marker in question, the direction of the usage expansion cannot be ascertained. A clear case of usage extension starting from the negative existential marker is attested in Ruwund. Its dedicated negative existential composed of an inherently negative verb and crucially also a locative subject marker has spread to other marked negation types including prohibitives.

It should be kept in mind, however, that this study presents a first exploration of negative existentials in Bantu languages. Additional descriptive data, as well in-depth studies of language-internal and language external (micro-) variation in the expression of negative existence, might disclose the etymologies of some negative existential strategies encountered in our sample and bring to light other dedicated negative existential strategies. Further research into Bantu negative existentials might even come to show that the NEC plays a more important role in negation renewal in Bantu languages than accounted for in this paper.

Abbreviations

Glossing follows the Leipzig glossing rules with the following additions:

1, 2, 3	noun classes 1, 2, 3 and etc.	META	metalinguistic
CONT	continuous	OM	object marker
CJ	conjunct form	NCP	noun class prefix
COP	copula	SBJV	subjunctive
DEM	demonstrative	SM	subject marker
EX	existential	pl	plural
FUT	future	PFV	perfective
FV	final vowel	POSS	possessive
IMP	imperative	prep	preposition
INF	infinitive	PST	past
IPFV	imperfective	proh	prohibitive
LOC	locative	TAG	tag particle

should all of these be typed in small caps?

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Appendix

Key to the table

SN = Standard verbal negation, which here refers to both primary and secondary negative marking (as both negate verbs).

#, – The number sign <#> and the hyphen <–> differentiate free-standing negatives from negative affixes.

$SN_{1/2}$ marks the various negators of a discontinuous negation strategy (i.e. a reflex of stage II of Jespersen Cycle).

EXIST = (Affirmative) existential (whether dedicated or non-dedicated)

LOC = Locative element

COP = Copula

The Guthrie numbers for referential classification of the Bantu languages are taken from Maho's (2009) updated list.

hyphen or en-dash?

Table 1: The data set for Bantu negative existentials

Name	ISO-code	Guthrie code	Construction	Lex. etymology	Stage	Other meanings (when noted)	Source(s)
Duala	**dua**	**A24**	*tìti*	**tìtà* 'not to be, not to exist' (infl. in PRF)	B(?)	neg. locational	Ittmann (1939), Ittmann (1976)
Bafia	**ksf**	**A53**	*-yin*	'not be'	B(?)	neg. locational	**Guarisma1992**
Eton	**eto**	**A71**	SN-EXIST	–	A		van de Velde (2008)
Ewondo	**ewo**	**A72(a)**	sə́kig	'not be' + SN_2	A		**Essono1993**
Bulu	**bum**	**A74a**	1) *-sékik* 2) *tɛkɛ* 3) *sǎ*	1) 'not be' + SN_2 2) *tɛ* + SN_2 3) ?	A~B	1) *-sɛ́* neg. copula used for loc., ex., poss., qualification 2) neg. inf., prohibitive, neg. conditional, 'without' 3) neg. identification, subsecutive clause	**Alexandre1966**
Orongu	**(mye)**	**B11b**	SN-EXIST	–	A		Ambouroue (2007)
Kota	**koq**	**B25**	*ǹdéká*	'not one'	B(?)		**Piron1990**
Tsogo	**tsv**	**B31**	SN-EXIST	–	A		**Marchal1979**
Duma	**dma**	**B51**	# *ve*	–	B(?)	neg. locational; possessives	Adam (1954)
Nzebi	**nzb**	**B52**	SN-EXIST	–	A		**Marchal1987**
Mbete	**mdt**	**B61**	*kali*	NEG+'be'(?)	B(?)	neg. locational; infinitives; possessives; indef. attributives	Adam (1954)
Nduumo	**nmd**	**B63**	1) *ng'i* 2) *oñana*	1) ? 2) ?	1) B(?) 2) B(?)	1) NEG2 of discont. SN, neg. locational; possessives	Adam (1954)
Engungwel	**ngz**	**B72(a)**	1) SN_1 # EXIST SN_2 2) *pyɛ~wɛ*	1) – 2) 'none'	1) A 2) A~B	2) NEG2 of discont. SN?	Raharimanantsoa (p.c.)

Iyaa	**iyx**	**B73c**	*pé*	'none'(?)	B(?)	NEG2 of discont. SN; neg. locational; prohibitive	Mouandza (2001)
Teke-Tyee	**tyx**	**B73d**	1) SN_1 # EXIST 2) *wɛ*	1) $-SN_2$ 2) 'none'	1) A 2) B(?)		Raharimanantsoa (p.c.)
Teke-Eboo	**ebo**	**B74B**	1) SN_1 # EXIST SN_2 2) *wɛ*	1) – 2) 'none'	1) A 2) B(?)		Raharimanantsoa (p.c.)
Tiene	**tii**	**B81**	1) SN-EXIST 2) *wɛ*	1) – 2) 'none'(?)	1) A 2) B(?)		Ellington (1977)
Dzing	**diz**	**B86**	*ati*	?	B(?)	neg. possessives; neg. plain locational; attributives; infinitives	Mertens (1938)
Mboshi	**mdw**	**C25**	# SN		A		**Amboulou1998**
Lingala	**lin**	**C30B**	EXIST # SN	–	A		Maniacky (p.c.)
Ntomba	**nto**	**C35a**	*-mbe*	'not be'	B		**Mamet1966**
Tetela	**tll**	**C71**	*kĕma*	'not, none'	A	neg. possessives, neg. plain locational	**Jacobs1964**
Ombo	**oml**	**C76**	1) SN-EXIST 2) LOC-*áfa*	1) – 2) 'not be'	A~B	neg. identification, 'no'	**Meeussen1952**
Bushong	**buf**	**C83**	*kwa*	?	B(?)		**Vansina1959**
Holoholo	**hoo**	**D28**	SN-EXIST (?)	–	B(?)		**Coupez1955**
Budu	**buu**	**D332**	SN-EXIST	–	A		**Asangama1983**
Kikuyu	**kik**	**E51**	SN-EXIST	–	A		Englebretson & Wa-Ngatho (2015), Grégoire (1975)
Kamba	**kam**	**E55**	SN-EXIST	–	A		**WhiteleyMuli1962**
Gweno	**gwe**	**E65**	SN-EXIST	–	A	–	Philippson & Nurse (2000)

Digo	**dig**	**E73**	SN-EXIST	–	A	–	Nicolle (2013)
Bende	**bdp**	**F12**	1) LOC-*tuhú* 2)LOC-(*a*)*bhulá*	1) 'only, empty, vain' 2) 'lack'	B	?	Y. Abe (p.c.)
Nyamwezi	**num**	**F22**	LOC-*dʊhʊ*	'only, empty, vain'	B	'no, nobody, nothing'	Maganga & Schadeberg (1992), P. Kanijo (p.c.)
Rangi	**lag**	**F33**	SN-EXIST	–	A		**Gibson2012**; **Dunham2005**
Mbugwe	**mgz**	**F34**	SN-EXIST	–	A		**GibsonWilhemsen2013**
Gogo	**gog**	**G11**	LOC-*si-na*	'be without' (neg.comitative)	B	'no'	Cordell (1941)
Kagulu	**kki**	**G12**	LOC-*ichaka*	'lack, be without'	B		Petzell (2008)
Luguru	**ruf**	**G35**	LOC-*duhu*	'only, empty, vain'	B(?)		G. Moses (p.c.)
Kami	**kcu**	**G36**	LOC-*bule*	'nothing at all, not yet'(?); < Sw. *bure* 'for free, in vain'	B	neg. possessive	Petzell & Aunio (2016), Petzell (p.c.)
Kisetla **(Swahili pidgin)**	**sta**	**G40C**	SN-EXIST	–	C	SN	Vitale (1980)
Lumumbashi **Swahili**	**swc**	**G40F**	SN-EXIST	–	C	postverbal emphatic negator	Schicho (1992)
Bunia Swahili	**swc**	**G40x**	SN-EXIST	–	C	SN	Nassenstein (p.c.)
(Standard) Swahili	**swh**	**G42**	SN-EXIST	–	A	'no'	Marten (2013)
Pogolo	**poj**	**G51**	1) LOC-*hera* 2) *hapana*	1) 'in vain, for nothing' 2) Sw. borrowing(?)	1) A~B 2) B~C		**Nurse2008b**, Hendle (1907)
Ndamba	**ndj**	**G52**	LOC *hela*	'just, any'	B	neg. possessive	Novotná (2005), Edelsten & Lijongwa (2010)
Hehe	**heh**	**G62**	LOC-*gaya*	'lack'	B		**Velten1899**, L. Ngwasi (p.c.)

Bena	**bez**	**G63**	1) SN-EXIST 2) LOC-*gaya* 3) LOC-*zila*	1) – 2) 'lack' 3) 'refuse'	A~B	2) neg. possessive	Morrison (2011), Eaton (2015a)
Pangwa	**pbr**	**G64**	SN-EXIST	–	A		Stirnimann (1983)
Kinga	**zga**	**G65**	1) SN-EXIST 2) LOC-*vɔla*	– 1) –	A~B		Wolff (1905), Eaton (p.c.)
Vwanji	**wbi**	**G66**	1) SN-EXIST 2) LOC-*sili*	1) – 2) (< **-gìd-* 'refuse'?)	A~B	neg possessive, neg relative, 'w/o' (conj.)	Eaton (p.c.)
Kisi	**kiz**	**G67**	EXIST # SN	–	A		Ngonyani (2011)
Beembe	**beq**	**H11**	# SN	–	A	neg. locational	Nsayi (1984)
South-East Kongo	**kon**	**H16h**	1) SN_1 # EXIST # SN_2 2) *nkatu*	1) – 2) 'emptiness, uselessness, zero, desolation, void, blank, vacancy, nought'	A~B		**Bentley1887**
Kinyarwanda	**kin**	**JD61**	*ntaa*	'be not' (*< COP *ni* + NEG *-ta-*)	B(?)	"exclusive marker"	Kimenyi (1980)
Luganda	**lug**	**JE15**	SN-EXIST	–	A		Ashton et al. (1954)
Lusoga	**xog**	**JE16**	1) LOC-*zila* 2) *mpagho*	1) 'reject as a result of anger'; 'not have' 2) ?	B(?)		Nabirye (p.c.)
Jita	**jit**	**JE25**	SN-EXIST	–	A		J. Malima (p.c.)
Ikizu	**ikz**	**JE402**	SN-EXIST	–	A		Gray (2013)
Gusii	**guz**	**JE42**	SN-EXIST	–	A		**Whiteley1956**
Ikoma-Nata	**ntk**	**JE45**	SN-EXIST	–	A		A. Laine (p.c.)
Lwena/Luvale	**lue**	**K14**	SN-LOC-*exi*	'not be'	B(?)		Horton (1949)

Kwangali	**kwn**	**K33**	1) SN-EXIST 2) LOC-*tupu*	1) – 2) 'empty'	A~B	neg. possessive	Dammann (1957)
Holu	**hoo**	**L12b**	LOC-*eesi*	'not be'	B(?)	neg. locational	**Daeleman2003**
Luba	**lub**	**L33**	1) SN-EXIST 2) LOC-*tu*(*pu*) 3) *fwa*-LOC	1) – 2) 'empty' 3) 'die'	A~B	neg. locational	Beckett (1951), **AvermaetMbuya1954**
Sanga	**sng**	**L35**	1) SN_1-EXIST # (SN_2) 2) LOC-*tú*(*pú*) 3) *fwa*-LOC	1) – 2) 'empty' 3) 'die'	A~B	neg. locational	**Hadelin1938**, **Coupez1981**
Kaonde	**kqn**	**L41**	*fwa*-LOC	'die'	B		**Woods**, Foster (1960)
Lunda	**lun**	**L52**	LOC-*osi*	?	B		Kawasha (2003)
Ruwund	**rnd**	**L53**	1) SN 2) LOC-*iikil*(*inga*)	1) – 2) ?	A~B		**Nash1992**
Fipa	**fip**	**M13**	SN-EXIST	–	A		Struck (1911)
Malila	**mqc**	**M24**	SN-EXIST	–	A		Eaton (2015b)
Ndali	**ndh**	**M301**	SN-EXIST	–	A		Botne (2008)
Nyakyusa	**nyy**	**M31**	SN-EXIST	–	A		Persohn (2017)
Lamba	**lab**	**M54**	SN-EXIST	–	A		**Doke1938**
Tonga	**toi**	**M64**	LOC-*nyina*	'be w.o.'	B		Collins (1962)
Manda	**mgs**	**N11**	1) SN 2) LOC/CL7-*waka*	1) – 2) 'empty, just'	A~B	neg. poss.	Bernander (2017)
Ngoni (Tz.)	**ngo**	**N12**	LOC-*waka*	'empty, just'	B	'no'(?), neg. possessive	**Spiss1904**, Ngonyani (2003), Mapunda (p.c.)

Ngoni (Moz.)	**no code**	**N12x**	1) *naku(va)* 2) *njêta*	1) SN-INF-'be' ?	1) B~C 2) A~B	1) external negation of main predication with fully inflected main verb, contrastive meaning, negative rhetoric question	Kröger (2011; n.d.)
Matengo	**mgv**	**N13**	EXIST # SN	–	A		Yoneda (2000, p.c.)
Tumbuka	**tum**	**N21**	LOC-COP-*je*	'be ?'	B		Kiso (2012), **Vail1973**
Nyanja-Chewa	**nya**	**N31**	LOC-COP-*be*	'be still'(?)	B		**BentleyKulemeka2001**, Kiso (2012), Grégoire (1975)
Nsenga	**nse**	**N41**	LOC-COP-*ye*/-*ve*	'be without'	B		Ranger (1928)
Nyungwe	**nyu**	**N43**	LOC-COP-*be*	'be ?'	B(?)		Grégoire (1975)
Ndengeleko	**ndg**	**P11**	LOC-*tópó*	'empty'	B	neg. possessive	Ström (2013)
Matumbi	**mgw**	**P13**	*ntɔpó~ndɔpó*	LOC18-'empty'	B	'no'	**Krumm1948**, Odden (1996)
Ngindo	**nnq**	**P14**	LOC-*duhu*	'empty'	B(?)		Gromova & Urmanchieva (2005)
Yao	**yao**	**P21**	SN-EXIST	–	A		Sanderson (1922), Whiteley (1966)
Makonde	**kde**	**P23**	SN-EXIST	–	A		**Leach2010**, **Kraal2005**
Makwe	**ymk**	**P231**	SN-EXIST	–	A		Devos (2008)
Makhuwa	**vmw**	**P31**	SN-EXIST	–	A		van der Wal (2009), **Katupha1990**
Shangaji	**nte**	**P312**	SN-EXIST	–	A		Devos (*field notes*)
Manyika	**mxc**	**S13**	SN-EXIST		A		**StevickMachiwana1960**
Xhosa	**xho**	**S41**	SN-EXIST		A~B		Ström (p.c.)
Zulu	**zul**	**S42**	SN-EXIST		A		Grout (1859)
Thswaa	**tsc**	**S51**	SN-EXIST		A		Gadelii (1998)

Chapter 2

From a negative existential into a negative auxiliary: the negative existential cycle in Moksha

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Moksha (Mordvin, Uralic) has a complex negation system with several negative markers. I examine two of these markers: the negative existential *aš* (~ *ajaš*) and the past tense negative auxiliary *aš-*. This auxiliary is generally assumed to have developed when the negative existential *aš* acquired the additional function of an auxiliary. This study demonstrates that the negative existential cycle provides a framework to understand the development of the negative existential into a negative auxiliary; the negative existential entered the verbal domain as the short answer 'no' and was fused with the older negative auxiliary, *iź-*, which continues to be used as an alternative to *aš-*. This study is based on the analysis of corpus data: First, to clarify their relationship in the contemporary language, the different functions of the negative existential are introduced. Second, the competing paradigms of the two negative auxiliaries *aš-* and *iź-* are investigated.

Keywords: Uralic, Moksha, negative existential, negative auxiliary, past tense

1 Introduction

Moksha and its closest sister language, Erzya, form the Mordvin branch of the Uralic language family. The Proto-Mordvin period began in approximately 1500 BCE and this period was preceded by a protolanguage that was common to the Mordvin, Finnic and Saami languages. The division of Proto-Mordvin into Moksha and Erzya probably began around the eighth century CE (Bartens 1999: 13–15; Keresztes 2011: 13–14).

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The Mordvin languages are spoken in Russia, with approximately 40% of Mordvins living in the autonomous Republic of Mordovia, which is situated in the middle course of the Volga. The remaining Mordvins reside in the surrounding provinces of the Russian Federation as well as in the neighboring republics of Chuvashia and Tatarstan. According to the latest census of the Russian Federation in 2010, there are approximately 806,000[1] ethnic Mordvins. Of these, 431,600 were reported to have mastered either Erzya or Moksha, but no reliable data is available on their native languages. However, it is estimated that around a third of the speakers speak Moksha, while two-thirds speak Erzya. The number of speakers of both languages are declining, as Russian is replacing them, especially among the younger generations.

The negation system of both Mordvin languages is known to be complex. Both languages have different types of negative markers and their distribution is determined by factors such as the type of clause, type of predicate, tense, and mood. The system can be explained predominantly by innovations that occurred during the Proto-Mordvin period and are therefore shared by both sister languages (Bartens 1999: 140–144; Hamari 2007; 2011; 2013; Hamari & Aasmäe 2015). However, the situation is somewhat different for the negative existentials. The Moksha and Erzya languages have a special negator for existential and possessive clauses (Moksha *aš*[2] ~ *ajaš* and Erzya *araś*), but the origin of both negators is uncertain and no common source can be reconstructed for these markers. In addition, only Moksha *aš* has further developed the function of a past tense negative auxiliary. Moksha also has an older past tense negative auxiliary *iź-* (dialectally *əź-*), which has the etymological cognate *eź-* in Erzya.

The purpose of this paper is to examine the development of the Moksha existential marker *aš* into a past tense negative auxiliary *aš-* of verbal clauses from the viewpoint of the negative existential cycle originally described by Croft (1991). I will begin the examination in §3 by providing an overview of the negative constructions reconstructed for Proto-Uralic and of what is known about the development of negative existentials in Uralic languages. In §4 I will introduce the negation system of Moksha to clarify the functions of the different negative

[1] According to some sources, the number is 744,237 (for example, see Hamari & Aasmäe 2015). However, this smaller figure does not include the persons who declared themselves either as Erzyas or Mokshas rather than Mordvins (cf. http://www.gks.ru/free_doc/new_site/perepis2010/croc/Documents/Vol4/pub-04-01.pdf).

[2] For purposes of this study, the negative existential is referred to as *aš*, while the negative auxiliary with the same stem is marked with a hyphen, that is, *aš-*. This is because the negative existential can appear without further inflection, whereas the negative auxiliary always has a personal ending following the stem.

markers. In §5 I examine the several functions of the Moksha negative existential *aš*. In §6, in order to determine the current situation for the negative existential cycle in the language, I will analyze the contemporary uses of the negative auxiliary *aš-* and its relationship to the auxiliary *iź-*. The development of the negative existential *aš* and the auxiliary *aš-* is discussed in §7 and conclusions are presented in §8.

I previously studied the functions of the Moksha negative markers – including the existential *aš* and auxliliary *aš-* in Hamari (2007) and Hamari (2013). However, this paper examines their mutual relationship in the contemporary language in the light of new data, and discusses the historical development of the functions in closer detail than in the earlier studies.

The data for the present study were gathered from an electronic corpus referred to as MokshEr. The corpus is administered by The Research Unit for Volgaic Languages at the University of Turku. This corpus includes literary texts, such as journals and newspapers from the years 2002–2005, as well as works of fiction. The size of the corpus is approximately 485,000 words. The references to MokshEr indicate the locations of the data within the corpus itself.

2 Transcription

The Uralic Phonetic Alphabet (also known as the Finno-Ugric transcription system) was adopted to transcribe Moksha (see Sovijärvi & Peltola 1977). It is important to mention that Moksha has a reduced vowel /ə/ that usually occurs in an unstressed position, predominantly in non-initial syllables but also in unstressed initial syllables. This reduced vowel has both velar and palatal allophones. The Uralic Phonetic Alphabet represents the palatal allophone as /ə/ and the velar as /ə̑/. In the transcriptions of the present study, the Moksha reduced vowel is indicated by a /ə/ but its velar and palatal allophones are not differentiated.

3 Negative markers in the Uralic languages

Two negative markers are reconstructed in the Uralic protolanguage: the negative auxiliary **e-* in standard negation, and the imperative auxiliary **elV-*, which may have been some type of extension or a supplementary form of **e-* (Janhunen 1982: 37). According to Janhunen, the negative auxiliaries probably carried the marking of the subject person, tense, and mood, while the lexical verb had a fixed

form with a suffix in *-*k*[3]. This suffix was most likely an original nominalizer of verbs, and it was also used to mark the imperative of the second person singular in the affirmative. Honti (1997: 241–242) argues that as the form of the lexical verb in standard negation was originally based on a nominalized verb form, the negative constructions could have originated as copula clauses with a negative copula verb, as in **e-m mene-k* 'I am not a goer' (**-m* '1SG', **mene-* 'go') > 'I don't go, I am not going'. Most, but not all, contemporary Uralic languages have retained at least some traces of the original negative markers **e-* and/or **elV-* in their negation of verbal clauses; in many languages, these are still negative auxiliaries with conjugational properties but in others, some form of the auxiliary may have developed into a generalized negative particle (for example, see Comrie 1981).

In addition to the negators of verbal clauses, many Uralic languages have separate negative markers for non-verbal clauses. Veselinova (2015) examines the special negators in the Uralic languages that negate stative predications, that is, predications without a verbal predicate. Veselinova concludes that this language family has three types of special negators: (i) *Negative existentials* are most typically used to negate existence, location, and possession; (ii) *Ascriptive negators* are used to negate predications in identity, class inclusion, and property attribution; and (iii) *General stative negators* negate all stative predications. The special negators that most widely occur in the Uralic languages are the negative existentials and while ascriptive negators are also rather common, general stative negators only occur in Udmurt and in (now extinct) Kamas. None of these negators, however, descend from Proto-Uralic but instead must be regarded as more recent innovations (see Veselinova 2015: 567–568, 570–571, 572 for references to diachronic information). As a consequence, if special negators of stative predications existed in Proto-Uralic, no evidence can be found in the daughter languages to suggest this.

The development of negative existentials that occur in contemporary Uralic languages differ. Veselinova (2015: 566–567) concludes that a negative existential can be (a) a fusion of a negative marker and a (nominalized) form of a copula or copula-like verb, (b) a specified function of a particular form of the original negative verb, (c) a reanalysis of a word with an inherently negative content, or (d) a borrowing. Furthermore, as Bartens (1996, in passim) observes, both the affirmative and negative existentials of Uralic languages typically have nominal properties. As I later demonstrate in §7.1, mechanisms that are usually suggested

[3] In Uralic linguistics, the form of the lexical verb that occurs in a negative auxiliary is often referred to as a connegative.

as explanations for the development of the Moksha negative existential are the fusion of a negative marker and a copula-like verb or reanalysis.

4 Negation in Moksha

The complexity of the Mordvin negation systems and their development have been addressed in several studies (for example, see Bartens 1999: 140–144; Keresztes 2011: 87–87; Hamari 2007; 2011; 2013), and I will therefore not provide a full account of negation in Moksha. The formation of verbal negation in Moksha is summarized in Table 1. Moksha is a pro-drop language and the person and number of the subject are expressed in the verbal suffixes. This means that the examples of both negative and affirmative constructions in Table 1 can be considered full clauses.

As can be seen in Table 1, the negation patterns of the present and second past tense indicative as well as the conditional and conditional-conjunctive moods are symmetric: The only difference between the affirmative and negative verb forms is the existence of the negative particle before the inflected predicate verb in the negative construction. The negation of all other verb forms is asymmetric: These forms are negated by negative auxiliaries followed by an invariant connegative form of the lexical verb, which means that the marking of finiteness appears in the negative marker instead of the lexical verb. (See Miestamo 2005 for a detailed study on symmetric and asymmetric negation.) However, the negative auxiliary *afəĺ-* of the desiderative and the conjunctive moods has most likely developed from a fusion of the particle *af* and the inflected form of the verb *uĺə-* 'be' (for example, see Bartens 1999: 142).

In addition to the negative markers presented in Table 1, there are two negative suffixes: *-fťäŕa-*/*-fťäŕä-* of the conditional and *-fťäŕaĺə-*/*-fťäŕäĺə-* of the conditional-conjunctive mood (Klemm 1934: 392–393; Paasonen 1953: 012; Pall 1957: 221; Bartens 1999: 141). These suffixes are fusions of the negative particle *af* and the following auxiliary verbs: **ťäŕa-* 'try' for the conditional and both **ťäŕa-* 'try' and *uĺə-* 'be' for the conditional-conjunctive (Bartens 1999: 129–137). The auxiliary constructions followed the connegatives of the lexical verbs and finally agglutinated with them. However, the suffixes are extremely rare in contemporary Moksha, which prefers constructions formed on the particle *af* and the affirmative form of the lexical verb.

According to the classification proposed by Veselinova (2015), Moksha belongs to the group of the Uralic languages that have a negative existential but no other special negators for non-verbal (or stative) predications. The negative particle

Table 1: The negation of verbal clauses in Moksha

Mood	Tense	Negator	Example of a negative clause	Corresponding affirmative clause
Indicative	Present tense	particle *af*	*af mor-an* NEG sing-PRS.1SG 'I do not sing / I am not singing / I will not sing'	*mor-an* sing-PRS.1SG 'I sing / I am singing / I will sing'
	First past tense	a) auxiliary *iź-*	*iź-əń mora* NEG.PST-PST1.1SG sing.CNG 'I did not sing'	*mora-ń* sing-PST1.1SG 'I sang'
		b) auxiliary *aš-*	*aš-əń mora* NEG.PST-PST1.1SG sing.CNG 'I did not sing'	
	Second past tense	particle *af*	*af mora-l'əń* NEG sing-PST2.1SG 'I didn't use to sing'	*mora-l'ń* sing-PST2.1SG 'I used to sing'
Imperative		auxiliary *t'a-*	*t'a-t mora* NEG.IMP-2SG sing.CNG 'do not sing'	*mora-k* sing-IMP.2SG 'sing'
Optative		auxiliary *t'a*	*t'a-z-at mora* NEG.IMP-OPT-2SG sing.CNG 'may you not sing'	*mora-z-at* sing-OPT-2SG 'may you sing'
Desiderative		auxiliary *afəl'-*	*afəl'ə-ksəl'əń mora* NEG-DES.1SG sing.CNG 'I didn't intend to sing'	*mora-l'əksəl'əń* sing-DES.1SG 'I intended to sing'
Conjunctive		auxiliary *afəl'-*	*afəl'əń mora* NEG.CONJ.1SG sing.CNG 'if I did not sing'	*mora-l'əń* sing-CONJ.1SG 'if I sang'
Conditional		particle *af*	*af mora-ńď'ăŕa-n* NEG sing-COND-1SG 'if I do not sing'	*mora-ńď'ăŕa-n* sing-COND-1SG 'if I sing'
Conditional-conjunctive		particle *af*	*af mora-ńď'ăŕal'əń* NEG sing-CONDCONJ.1SG 'if I hadn't sung'	*mora-ńď'ăŕal'əń* sing-CONDCONJ.1SG 'if I had sung'

af that occurs in verbal negation is used to negate ascriptive clauses, while the negative existential *aš* (with a longer variant *ajaš*) occurs in existential and possessive clauses. In locative clauses, both are possible but with certain semantic differences (see §5.3). Table 2 illustrates the functions of the different negators of the non-verbal predications in the present tense and Table 3 lists the functions of the negators in the past tense.

Table 2: The negation of non-verbal clauses in the present tense in Moksha.

Non-verbal clause	Negator	Example of a negative clause	Corresponding affirmative clause
Ascriptive	*af*	*(mon) af od-an* 1SG NEG young-PRS.1SG 'I am not young'	*(mon) od-an* 1SG young-PRS.1SG 'I am young'
Existential	a) *aš*	*pakśa-sa aš traktər* field-INE NEG tractor 'there is no tractor in the field'	*pakśa-sa uľ-i traktər* field-INE be-PRS.3SG tractor 'there is a tractor in the field'
	b) *ajaš*	*pakśa-sa ajaš traktər* field-INE NEG tractor 'there is no tractor in the field'	
Possessive	a) *aš*	*moń aš* 1SG.GEN NEG *ćora-źä* son-POSS.1SG.SG 'I don't have a son'	*moń uľ-i* 1SG.GEN be-PRS.3SG *ćora-źä* son-POSS.1SG.SG 'I have a son'
	b) *ajaš*	*moń ajaš ćora-źä* 1SG.GEN NEG son-POSS.1SG.SG 'I don't have a son'	
Locative	a) *af*	*(mon) af pakśa-s-an* 1SG NEG field-INE-PRS.1SG 'I am not in the field'	*(mon) pakśa-s-an* 1SG field-INE-PRS.1SG 'I am in the field'
	b) *aš*	*(mon) aš-an pakśa-sa* 1SG NEG-PRS.1SG field-INE 'I am not in the field'	

Table 3: The negation of non-verbal clauses in the past tense in Moksha.

Non-verbal clause	Negator	Example of a negative clause	Corresponding affirmative clause
Ascriptive	*af*	*(mon) af odə-ľəń* 1SG NEG young-PST2.1SG 'I was not young'	*(mon) odə-ľəń* 1SG young-PST2.1SG 'I was young'
Existential	*aš*	*pakśa-sa ašə-ľ* field-INE NEG-PST2.3SG *traktər* tractor 'there was no tractor in the field'	*pakśa-sa uľ-ś* field-INE be-PST1.3SG *traktər* tractor 'there was a tractor in the field'
Possessive	*aš*	*moń ašə-ľ* 1SG.GEN NEG-PST2.3SG *ćora-źä* son-POSS.1SG.SG 'I didn't have a son'	*moń uľ-ś* 1SG.GEN be-PST1.3SG *ćora-źä* son-POSS.1SG.SG 'I had a son'
Locative	a) *af*	*(mon) af pakśa-sə-ľəń* 1SG NEG field-INE-PST2.1SG 'I was not in the field'	*(mon) pakśa-sə-ľəń* 1SG field-INE-PST2.1SG 'I was in the field'
	b) *aš*	*(mon) ašə-ľəń pakśa-sa* 1SG NEG-PST2.1SG field-INE 'I was not in the field'	

Finally, the negative particle *apak* is used to negate participles and converbs. As both affirmative and negative participles can occur in the predicate position, *apak* could also be regarded as a negator of non-verbal clauses. In this analysis, however, I will exclude these clauses because they are not prototypical stative expressions as the predicates have a verbal basis.

Before moving on to the functions of *aš* and *ajaš*, it is necessary to clarify how predication is expressed in Moksha. As is presented in Table 2 and Table 3, the non-verbal predicates of ascriptive and locative clauses take the verbal personal suffixes and agree with the subject person and number. In the present tense, these suffixes are the normal personal endings, except for the third persons. The third person singular of non-verbal predication has no personal ending, whereas the

third person plural takes the plural suffix *-t/-ť* of nouns instead of that of verbs.[4]

The situation for the past tense is slightly more complicated. In verbal predication, there are two past tense categories: the first past tense which is unmarked (for instance, *mora-ń* 'I sang') and the second past tense which has a habitual or progressive reading (such as *mora-ľəń* 'I used to sing, I was singing'). However, non-verbal predication only takes the second past tense, and in this case, it is unmarked, that is, it is not habitual or progressive but a neutral past tense (for example, *odə-ľəń* 'I was young').[5] Table 4 presents the tense suffixes that are possible for non-verbal as compared to verbal predicates of Moksha.

Table 4: Non-verbal predication versus verbal predication in Moksha.

	Non-verbal predication of *od* 'young'		**Verbal predication of *mora-* 'sing'**		
	Present tense	**Second past tense**	**Present tense**	**First past tense**	**Second past tense**
1sg	*od-an*	*odə-ľəń*	*mor-an*	*mora-ń*	*mora-ľəń*
2sg	*od-at*	*odə-ľəť*	*mor-at*	*mora-ť*	*mora-ľəť*
3sg	*od*	*odə-ľ*	*mora-j*	*mora-ś*	*mora-ľ*
1pl	*od-tama*	*odə-ľəmä*	*mora-tama*	*mora-mä*	*mora-ľəmä*
2pl	*od-tada*	*odə-ľəďä*	*mora-tada*	*mora-ďä*	*mora-ľəďä*
3pl	*od-t*	*odə-ɪť*	*mora-jť*	*mora-śť*	*mora-ɪť*

5 The negative existential *aš*

5.1 The general properties of *aš*

If we adopt the definition suggested by Veselinova (2013: 118–139), we can state that Moksha *aš* behaves similarly to a prototypical negative existential. First, as will be demonstrated, it is difficult to pinpoint a specific word class that *aš* belongs to because it has different inflectional properties in different functions. Second, *aš* is used to negate existence, possession and location, which are the most common contexts for negative existentials cross-linguistically. Third, *aš*

[4] However, historically, the verbal suffixes of the third person forms can be traced to participial forms with the participle ending in *-i*. So the verb forms are, in fact, original nominal predicates with no person marking in the singular, and the plural ending in *-t/-ť* in the plural.

[5] Historically, the second past tense endings are personal forms of the verb *uľə-* 'be' that were attached to the predicate; this *uľə-* 'be' was conjugated in the first past tense.

appears as a pro-sentence and a short word for 'no', which are also frequent uses of negative existentials. Fourth, in existential and possessive clauses, *aš* replaces the affirmative existential rather than negates it.

In the following, the functional and semantic properties of *aš* are considered in the order that reflects the order of frequency of functions found in the negative existentials cross-linguistically (Veselinova 2013: 118–119). In §5.2, existential and possessive clauses are examined together, as their prototypical negative constructions resemble each other, while locative clauses are analyzed separately in §5.3 due to their different predicational properties. §5.4 presents the use of *aš* as a negative pro-sentence and a negative interjection. Finally, the occurrences of *aš* as a noun are considered in §5.5

5.2 Existential and possessive clauses

As the constructions of possessive clauses are rather similar to existential clauses, both clause types will be addressed in this section. Let us first consider the affirmative constructions of these clause types and then focus on the negative forms.

In Moksha existential clauses, the subject of the sentence is in the indefinite nominative form and, being indefinite, it is necessarily in the third person (see Table 2). While the existential sentence may express the plain existence of the referent without further specifications of a location, a locative phrase can be present, as in (1). In the affirmative, the existential predicate is the third person form of the verb 'be', that is, (sg.) *uľi*, (pl.) *uľiɟť*. (For more details, see Hamari 2007: 47–52.)

(1) [MokshEr-V.3/V.1/Moksha/Moksha/2002/16.txt]
Kuχńa-sa pľita uľ-i, no son ušńə-ma penga-sa.
kitchen-INE stove be-PRS.3SG but 3SG warn-INF2 firewood-INE
'There is a stove in the kitchen, but it must be warmed with firewood.'

In the possessive clauses, the possessor is often referred to by a noun or a pronoun in the genitive case.[6] Furthermore, the subject has a possessive suffix that refers to the possessor; as the possessor can be concluded from the possessive suffix, the noun or pronoun can be dropped, as in (2). In the affirmative, the forms of the verb 'be' are used as predicates. (See, for example, Hamari 2007: 52–57.)

[6] However, the plural personal pronouns are ambiguous as to the nominative and the genitive case (for example, *śiń* is both 3PL.NOM and 3PL.GEN).

(2) [MokshEr-V.3/V.1/Moksha/Moksha/2005/22.txt]
Kudo-ńkä uľ-i, žuvata-ńkä uľ-ijť.
house-POSS.1PL be-PRS.3SG cattle-POSS.1PL be-PRS.3PL
'We have a house, we have cattle.'

Both *aš* and *ajaš* can occur in the negation of existential and possessive clauses, although *aš* is far more common than *ajaš*. Moreover, according to Nadezhda Kabaeva (p.c.), *ajaš* is regarded as a colloquial form, whereas *aš* is in general use both in the spoken and in the literary language. However, as both variants appeared in the written data of the present study, I will consider both of them.

In the present tense, *aš* and *ajaš* can be described as invariant negative predicates because neither of them agrees with a plural subject – unlike the affirmative predicate based on the verb 'be' that occurs in (1) and (2). Table 2 shows the present tense existential and possessive clauses with a singular subject, whereas in (3) and (4), a plural subject occurs.

(3) [MokshEr-V.3/V.1/Moksha/Varia/C/1.txt]
Ajaš *traktəʀ-t, šarijť aš.*
NEG tractor-PL wheel.PL NEG
'There are no tractors, there are no wheels.'

(4) [Nadezhda Kabaeva, p.c.]

a. *Moń* ***aš*** *ćora-ńä.*
1SG.GEN NEG son-POSS.1SG.PL
'I don't have sons.'

b. *Moń* ***ajaš*** *ćora-ńä.*
1SG.GEN NEG son-POSS.1SG.PL
'I don't have sons.'

The plurality of the subject in existential clauses (such as 3) is expressed by the plural suffix *-t* / *-ť*, whereas plurality in possessive clauses (such as 4) is indicated by the possessive suffix, which is attached to the possessee. This only applies when the possessor is one of the singular persons, as these persons have separate possessive suffixes for a singular and a plural possessee (such as *ćora-źä* son-POSS.1SG.SG 'my son'; *ćora-ńä* son-POSS.1SG.PL 'my sons'), as in (4a) and (4b), respectively. When the possessor is in the plural, the number of the subject is not explicitly marked in the possessive suffixes (such as *ćora-ńkä* son-POSS.1.PL.SG/PL 'our son; our sons'). (5) and (6) exemplify the latter instances

of possessive clauses; in both clauses, the possessive suffix is ambiguous with regards to the number of the possessee and that number must be deduced from the context.

(5) [MokshEr-V.3/V.1/Moksha/Moksha/2002/9.txt]
Da śiń pulə-snə-vək ***aš.***
and 3PL.GEN tail-POSS.3PL.SG/PL-CLT NEG
'And they do not have tails either.'

(6) [MokshEr-V.3/V.1/Moksha/Mokshen_pravda/2004-9/28.txt]
Lomaťť, kaľi ***ajaš*** *ťiń-gä śeľmə-ńťä?*
person.PL Q NEG 2PL.GEN-CLT eye-POSS.2PL.SG/PL
'People, don't either of you have eyes?'

The main difference between the variants *aš* and *ajaš* is that only *aš* can be used in the past tense. Moreover, unlike the present tense in which *aš* is invariant, it is inflected in the past tense; *aš* acquires the suffix of the second past tense as well as the agreement marker of the plural subject (sg. *ašə-ľ* (NEG-PST2.3SG); pl. *ašə-ľť* (NEG-PST2.3PL)). Examples of past tense existential and possessive clauses with a plural subject are presented in (7) and (8).

(7) [Nadezhda Kabaeva, p.c.]
pakśa-sa ***ašə-ľť*** *traktəʀ-t*
field-INE NEG-PST2.3PL tractor-PL
'there were no tractors in the field'

(8) [Nadezhda Kabaeva, p.c.]
moń ***ašə-ľť*** *ćora-ńä*
1SG.GEN NEG-PST2.3PL son-POSS.1SG.PL
'I didn't have sons'

It should be noted that the negative existentials *aš* and *ajaš* are remarkably different from their affirmative equivalent in terms of their inflectional properties. As was illustrated in Tables 2 and 3, as well as in examples (1) and (2), existential and possessive clauses in Moksha have an affirmative existential *uľi* that is actually the third person singular form of the verb *uľə-* 'be'. The affirmative existential agrees with the number of the subject. In the present tense, the regular verbal third person plural form *uľiďť* is used with a plural subject, whereas in the past tense, the first past tense forms (sg.) *uľś*, and (pl.) *uľšť* are used – a tense

form that is neither possible with a non-verbal predicate nor with the negative existential *aš*.

Finally, a special type of modal construction occurs where *aš* appears before an interrogative pronoun. These constructions denote the impossibility to perform certain actions. These actions are expressed by verbs that usually take the infinitive, as in (9).[7]

(9) [MokshEr-V.3/V.1/Moksha/Moksha/2002/16.txt]
Aš *kosa,* ***aš*** *məźarda kńiga-ńä luvə-ms, […]*
NEG where.INE NEG when book-DIM read-INF1
'There is no place and time to read a book' (Lit. "There is no where, there is no when to read a book")

No detailed analysis has thus far been published on these constructions, but it seems that they should be regarded as a type of a functional extension of existential clauses. This is because they have affirmative equivalents that are formed with the regular existential predicate, the verb 'be', as in (10).

(10) [MokshEr-V.3/V.1/Moksha/Moksha/2003-9-10/11.txt]
T'äńi uľ-i koda azə-ms: jumafksə-ńkä oćuftə-ľť.
now be-PRS.3SG how say-INF1 loss-POSS.1PL big.PL-PST2.3PL
'Now it is possible to say: Our losses were great.' (Lit. "Now there is how to say […]")

5.3 Locative clauses

Moksha locative clauses require a locative phrase, as it is the predicate of the clause. The locative phrase acquires the endings of non-verbal predication, that is, the present or the second past tense as well as the marking of the subject person. The clause does not contain a copula or any other predicate item besides the locative phrase. Another feature that differentiates existential and locative expressions is that the subject of the locative clause is definite. This subject is either a personal pronoun or a noun with the definite nominative case suffix; nonetheless, the subject can be omitted because it is expressed in the personal ending of the locative predicate, as in (11):

[7] It is important to emphasize that these are not cases of negative indefinite pronouns. The indefinite pronouns in Moksha are formed by attaching the suffix *-vək/-gək ~ -ga/-gä ~ -ka/-kä* to an interrogative pronoun. The resulting indefinite pronouns can be used either in an affirmative or a negative context (for example, *kosa* 'where': *kosəvək* 'somewhere, (not) anywhere, nowhere').

(11) [V.1/Moksha/Moksha/2002/19.txt]
Nona ši-ťńəń Mosku-sə-ľəń.
previous day-GEN.DEF.PL Moscow-INE-PST2.1SG
'During the previous days I was in Moscow.'

Negative clauses take either the particle *af* or the existential *aš*. When the particle *af* occurs, the predication is the same as in the affirmative equivalent: The conjugated locative phrase is the predicate of the clause, as in (12).

(12) [V.1/Moksha/Varia/B/9.txt]
Mäľaft-k, ćora-j, af kud-s-at / Ćebäŕńasta
remember-IMP.2SG>3SG boy-VOC NEG house-INE-PRS.2SG nicely
pačkəťť!
arrive.IMP.2SG
'Remember, my son, you are not at home / Go [to the house] nicely!'

Tables 2 and 3 present locative clauses that may also be negated by *aš*. The semantic difference between the functions of the ascriptive negator *af* and the existential negator *aš* is identical to what appears between the functions of ascriptive and existential negators in Erzya (see Hamari 2007: 91); the ascriptive *af* implies that the referent is not at the location expressed in the clause but somewhere else, whereas *aš* negates the existence of the referent in the location without the assumption that the referent might be somewhere else (Nadezhda Kabaeva, p.c.). The difference can be captured by comparing examples (12) and (13). In (12) (retrieved from a poem), the listener is asked to approach a house respectfully because he is not at his own home but at a house that belongs to someone else. As a consequence, *af* is used in negation. By contrast, the listener in example (13) is asked whether or not he is home; the listener responds with a negative answer without implying further as to his location. For this reason, *aš* appears.

(13) [MokshEr-V.3/V.1/Moksha/Moksha/2002/32.txt]
*– Vańa, ton kud-s-at? – **Aš-an** kud-sa, –*
Vańa 2SG house-INE-PRS.2SG NEG-PRS.1SG house-INE
atveča-ś śä.
answer-PST1.3SG it
'–Vańa, are you at home? – I am not at home, – he answered.'

In addition to the semantic difference, locative clauses that are negated with *af* and *aš* also display a morphosyntactic difference. With the ascriptive negator *af,*

the locative phrase remains the non-verbal predicate, as the negative marker is an invariant particle. Nonetheless, the existential negator *aš* acquires the personal endings of the non-verbal conjugation in locative clauses – a property that this negator does not exhibit in existential clauses. As a consequence, *aš* could be regarded as the negative copula of the locative clause. The conjugations of *aš* in the present tense and in the second past tense are presented in Table 5 and I provide examples of the uses of the forms in (13) in the present tense and in (14) in the past tense, respectively.

Table 5: The non-verbal conjugation of *aš* in locative clauses.

	Present tense	**Past tense**
1sg	*ašan*	*ašəľəń*
2sg	*ašat*	*ašəľəť*
3sg	*aš*	*ašəľ*
1pl	*ašətama*	*ašəľəmä*
2pl	*ašətada*	*ašəľədä*
3pl	*ašət*	*ašəlť*

(14) [MokshEr-V.3/V.1/Moksha/Moksha/2003-11-12/10.txt]
Mon Mosku-sa vesťə-vək ***ašə-ľəń****.*
1sg Moscow-ine once-clt neg-pst2.1sg
'I have never been to Moscow.'

It is important to note that the conjugational properties of *aš* in locative clauses are non-verbal rather than verbal: In the present tense, the third person singular has no personal ending, whereas in the third person plural, the plural suffix of nouns (instead of verbs) occurs. Resembling non-verbal predicates, the second past tense is an unmarked tense in negative locative expressions, which means that it does not have the habitual or progressive message that it conveys in verbal clauses.

The longer variant *ajaš* is not used in locative clauses that occur in written texts and consequently, it does not have non-verbal conjugation. When used colloquially, however, *ajaš*, sometimes acquires the same personal suffixes as *aš* (Nadezhda Kabaeva, p.c.).

5.4 Negative pro-sentences

It is typologically common for negative existentials to become negative pro-sentences and to be used as general words for 'no' (Veselinova 2013: 127). In this respect, the Moksha *aš* is no exception. However, as I established in Hamari (2007: 270–271), the invariant Moksha negative markers, *af* and *aš* (~ *ajaš*), are in complementary distribution as negative pro-sentences or one-word answers. The particle *af* is selected for present tense verbal clauses or ascriptive clauses, whereas *aš* (~ *ajaš*) is normally used in contexts related to the existential, possessive and locative clauses. In addition, the variant *aš* is used in verbal clauses of the first past tense.

To illustrate the distribution of *af* and *aš*, (15) and (16) are cited as examples of the *af* used as a one-word answer to questions or commands involving a verbal clause in the present tense. In (17), on the other hand, *af* is used in a context of an ascriptive clause.

(15) [MokshEr-V.3/V.1/Moksha/Moksha/2002/3.txt]
*– Suva-k, požalsta, päľə-n! Aďä! – **Af**, **af**,*
enter-IMP.2SG please side-POSS.1SG come.on NEG NEG
suv-śə-ms aš məźarda, – atkaza-ś Koročkov.
enter-FREQ-INF1 NEG when refuse-PST1.3SG Koročkov
'– Please, enter my place! Come on! – No, no, there is no time to enter, – Koročkov refused.'

(16) [MokshEr-V.3/V.1/Moksha/Varia/A/9.txt]
*– S'kamə-t van-at? – **Af**, tosa taga uľ-ijť śťiŕ-ńa-t,*
alone-2SG watch-PRS.2SG NEG there yet be-PRS.3PL girl-DIM-PL
śiń-gä van-ijť…
3PL-CLT watch-PRS.3PL
'– Are you watching [the calves] alone? – No, there are other girls; they are also watching.'

(17) [MokshEr-V.3/V.1/Moksha/Moksha/2003-5-6/23.txt]
– Toń ťäďä-ćä-vək, aľä-ćä-vək Käšalə-ńńə-t?
2SG.GEN mother-POSS.2SG-CLT father-POSS.2SG-CLT Käšal-EXTGEN-PL
*– **Af**.*
NEG
'–Are your mother and father residents of Käšal? – No.'

The existential *aš* (~ *ajaš*) is in turn found in existential, possessive and locative contexts (Hamari 2007: 270), as shown in (18), (19) and (20), respectively.

(18) [Hamari 2007: 270 < Paasonen & Ravila 1947: 888]
*– Aš mezevək, što-li? – **Ajaš**, ot'sä-j!*
NEG anything Q-Q NEG uncle-VOC
'Isn't there anything? – No, my uncle!'

(19) [Hamari 2007: 270 < Mokša 1/1998: 126]
Uľ-ijť ľi ťiń kodaməvək prava-ńťä? Śembə-ń ťiń
be-PRS.3PL Q 2PL.GEN any.kind.of right-POSS.2PL all-GEN 2PL.GEN
*inksənt aťveč-an: **aš**.*
for.POSS.2PL answer-PRS.1SG NEG
'Do you have rights of any kind? I shall answer for all of you: no.'

(20) [Hamari 2007: 270 < Paasonen & Ravila 1947: 894]
*"– maksim··-tsä kut-sa?" – "**ajaš**, **ajaš**, […]"*
Maksim-POSS.2SG house-INE NEG NEG
'– Is your Maksim at home? – No, no, […]'

Finally, (21) and (22) are examples of the invariant *aš* when it is used as a negative one-word answer to questions in the first past tense.

(21) [MokshEr-V.3/V.1/Moksha/Moksha/2002/26.txt]
– Estəńbeŕä Pŕavijə-ń ćentra-ś lotka-ś vano-mda
since.then intelligent-GEN centre-NOM.DEF.SG stop-PST1.3SG look-INF3
Moda-ť meľgä? […]
Earth-GEN.DEF.SG after
*– **Aš**, ašəź lotka.*
NEG NEG.PST1.3SG stop.CNG
'– Since then, the Centre of intelligence stopped watching over the Earth? – No, it did not stop.'

(22) [MokshEr-V.3/V.1/Moksha/Moksha/2003-5-6/23.txt]
– A toń koj-sə-t, meźəvək iź ľiśə?
but 2SG.GEN way-INE-POSS.2SG nothing NEG.PST1.3SG go.CNG
*– Moń koj-sə-n, **aš**, […]*
1SG.GEN way-INE-POSS.1SG NEG
'– But in your opinion, nothing happened? – In my opinion, no, […]'

It is perfectly logical to use *aš* in answers to questions in which existential, possessive or locative clauses appear (18–20), because *aš* is the regular negator of these clause types. In contrast the usage of *aš* in verbal clauses in the past tense, such as (21–22), is not as logical because in verbal clauses, *aš* is always conjugated according to the subject (and possibly object) person of the clause. A possible explanation for this, could be that the use of *aš* as a one-word answer *preceded* the development of this marker into a negative auxiliary (Hamari 2007: 272–275). The invariant existential *aš* may have developed analogically to how the one-word negation *af* was used as a short word for 'no'. After all, the use of the invariant *af* was restricted to the present and the second past tense as well as to certain moods. This may explain why speakers began to use the invariant *aš* elsewhere – including the first past tense where other option would have been a conjugated form of the negative auxiliary *iź-*. As argued in §7, the use of the invariant *aš* in one-word negations might be the key in understanding how the negative auxiliary *aš-* developed from the negative existential.

5.5 *Aš* as a noun

The variant *aš* (but not *ajaš*) can be used as a lexical noun in its basic form or with further derivation (Hamari 2007: 268–270). Without derivation, *aš* has meanings such as 'nothingness' or 'poverty'. It can also be inflected in different cases: In (23), *aš* is followed by the inessive case suffix. However, a more extensive study would be needed to clarify the extent of its inflectional potential.

(23) [MokshEr-V.3/V.1/Moksha/Moksha/2002/29.txt]
[…] kodama ***aš-sa*** *eŕä-iɟť* *lomattńä!*
what.kind.of poverty-INE live-PRS.3PL person.NOM.DEF.PL
'what poverty people live in!'

The derivational suffixes that can be attached to *aš* are *-ši*, which is used for abstract nouns (*ašši* 'extreme poverty, need') and the diminutive suffix *-ńä* (*ašəńä* 'non-existence, smallness') (for example, MWb: 73). Furthermore, as observed by Bartens (1996: 79), *ašu* 'poor' is derived from *aš* with the derivational suffix *-u* of adjectives (24). This adjective is used as a base for further derivations, such as *ašuši* 'poverty' and *ašusta* 'poorly; in a poor way'.

(24) [MokshEr-V.3/V.1/Moksha/Moksha/2003-8/8.txt]
[…] ***ašu*** *mokšə-ń* *śemjä-sta* *ćora-ńä-ś* *ara-ś*
poor Moksha-GEN family-ELA boy-DIM-NOM.DEF.SG become-PST1.3SG

soda-f *pisaťeľ-ks,* *[…]*
know-PST.PTCP author-TRA
'the little boy from a poor Moksha family became a well-know author'

Finally, the form *ašajka* 'not a thing, nothing' (MRV: 51) is also derived from *aš* (25); It has another diminutive suffix, *-(aj)ka*.

(25) [MokshEr-V.3/V.1/Moksha/Moksha/2003-11-12/3.txt]
Čast-ška-da *meľä* *moľ-ť* *toza* *i* *muj-at* – ***ašajka***.
hour-COMP-ABL after go-PST1.2SG there.ILL and find-PRS.2SG not.a.thing
'After about an hour you went there and find – not a thing.'

According to Bartens (1996: in passim), it is rather common for existentials to have nominal uses in the Uralic languages; Negative existentials often convey meanings such as 'nothingness', 'smallness', and 'poverty', while affirmative existentials denote 'wealth', 'riches', and 'property'.

6 The past tense auxiliary *aš-*

6.1 Comparison of the existential *aš* and auxiliary *aš-*

The Moksha auxiliary *aš-* is synchronically separate from the negative existential *aš*, as they have different functions, semantics and conjugational properties. The auxiliary *aš-* is used for the negation in verbal clauses in the first past tense. When *aš-* occurs in intransitive clauses as well as in transitive clauses with an indefinite object, it acquires the personal endings of the subjective conjugation. In other words, *aš-* agrees with the subject person and number as presented in Table 6. It can also take a personal ending of the objective conjugation in which case it additionally agrees with the definite object person and number (see the paradigms in Tables 9 and 10 of §6.2). The lexical verb of the negative construction in the past tense takes the connegative form. In Moksha, the connegative form is the stem of the verb.[8]

[8] There is some alternation in the stem vowel of the connegative. If the stem ends in *-a* or the palatal allophone *-ə* of the reduced vowel the stem vowel is usually preserved (for example, *pala-* 'kiss': *ašəń pala* 'I did not kiss'; *peľə-* 'be afraid': *ašəń peľə* 'I was not afraid'). However, the stem-final *-ə* is sometimes omitted and the stem ends in a consonant (as in *ašəń peľ* 'I was not afraid'). On the other hand, when the stem vowel is the velar allophone *-ə̑* of the reduced vowel, it becomes *-a* (as in *udə̑-* 'sleep': *ašəń uda* 'I did not sleep'). Finally, if the stem ends in the passive-reflexive derivational suffix *-və-*, the vowel is omitted (for example, *atkazavə-* refuse, decline': *ašəń atkazav* 'I did not refuse').

Table 6: The subjective conjugation of the first past tense negative forms of *mora-* 'sing'

1SG	*ašəń*	*mora*
2SG	*ašəť*	*mora*
3SG	*ašəź*	*mora*
1PL	*ašəmä*	*mora*
2PL	*ašəďä*	*mora*
3PL	*ašəśť*	*mora*

Examples (26) and (27) illustrate the use of the negative auxiliary *aš-* in the first past tense. In (26), the negative auxiliary takes the personal ending of the subjective conjugation, whereas (27) has the objective conjugation.

(26) [MokshEr-V.3/V.1/Moksha/Moksha/2003-5-6/23.txt]
Mes ***ašəť*** *kočka ľijä ki?*
why NEG.PST1.2SG choose.CNG another road
'Why didn't you choose another road?'

(27) [MokshEr-V.3/V.1/Moksha/Moksha/2005/33.txt]
Son ***ašəďäź*** ***kada!***
3SG NEG.PST1.3SG>2PL leave.CNG
'He did not leave you!'

To summarize, the auxiliary *aš-* and existential *aš* exhibit the following clausal differences in negation: (1) The auxiliary *aš-* only appears in verbal clauses in connection with the connegative form of the lexical verb, whereas the use of the existential *aš* is restricted to existential, possessive and locative non-verbal clauses in clausal negation; (2) The auxiliary *aš-* is only used in the past tense, whereas the existential *aš* expresses tense through its conjugation; (3) The auxiliary *aš-* is conjugated according to the past tense of either the subjective or the objective conjugation of verbs, whereas the existential *aš* is invariant in existential and possessive clauses in the present tense but acquires the suffixes of non-verbal predicates in the past tense as well as both present and past tenses of the locative clauses with definite subjects. Table 7 presents the functions and inflectional properties of the auxiliary and the existential in more detail.

Table 7: A comparison of the Moksha negative existential *aš* and the auxiliary *aš-*.

		***Aš* in existential and possessive clauses**	***Aš* in locative clauses**	**Auxiliary *aš-***
1. Clausal function		Negative predicate of existential and possessive clauses.	Negative copula of locative clauses.	Negative auxiliary of a verbal clause.
2. Tense	**Present tense**	Invariant: no overt tense marking.	Present tense personal suffixes of verbs, except in third person forms.	Not used in the present tense.
	Past tense	Second past tense only.	Second past tense only.	First past tense only.
3. Subject encoding	**Present tense**	Invariant: no encoding of the subject person or number.	Subject person and number encoded by verbal suffixes, except in the third person forms.	Not used in present tense.
	Past tense	Encoding of a plural subject.	Subject person and number encoded by verbal suffixes of the second past tense.	Subject person and number encoded by verbal suffixes of the first past tense.
4. Objective conjugation		No objective conjugation.	No objective conjugation.	Both subjective and objective conjugation (object person and number encoded by verbal suffixes).

6.2 A comparison of the auxiliaries *iź-* and *aš-*

Before discussing how the negative element *aš* received its new function, it is necessary to examine the relationship between the negative auxiliary *aš-* and its functional synonym, *iź-*. As was noted previously in this analysis, the auxiliary *iź-* must have had this function before *aš-*. Grammatical descriptions of Moksha generally consider these two auxiliaries synonymous and completely interchangeable. Nevertheless, to my knowledge, their relationship has not been examined in detail. If *aš-* were to compete or even gradually substitute *iź-* in past tense negative clauses, this would be reflected in their contemporary uses. In this section, I explore their relationship by analyzing the frequency of their occurrence in the MokshEr corpus.

The conjugational properties of the auxiliary *iź-* are identical to those of *aš-*. Similar to *aš-*, the auxiliary *iź-* is conjugated according to both subjective and objective conjugation and the personal endings are the same (see Tables 8–10). The connegative form of the lexical verb is also the same for both auxiliaries.

Both *aš-* and *iź-* appear in written contemporary Moksha in all personal forms of the subjective and objective conjugations. In addition, there are no differences as to the types of verbs they can occur with. Their interchangeability is further evidenced by the fact that both auxiliaries can be used within a single text and even within a single sentence, as in (28) and (29). In fact, as these types of sentences are rather frequent, this suggests that the alternation of the auxiliaries is at least partly determined by stylistics factors. In other words, the purpose of this alternation is to avoid repetition when several negative constructions occur.

(28) [V.3/V.1/Moksha/Moksha/2003-x/1.txt]
Da, viďə-nc azə-ms, käľə-ń
yes truth-GEN.POSS.3SG.SG tell-INF1 language-GEN
šačə-ma-kasə-ma-sa tuftaʟńä, məźar-s
be.born-NMLZ-grow-NMLZ-INE reason.NOM.DEF.PL how.many-ILL
kodamə-vək učonajə-ńďi lac-ŕäc ***ašəšť*** ***sodav,***
what.kind.of-CLT scholar-DAT well-in.order NEG.PST.3PL be.known.CNG
išť ***muv.***
NEG.PST.3PL be.found.CNG
'Yes, to tell the truth, the reasons of the evolution of language have so far not been well known, not been discovered by any scholar.'

(29) [V.3/V.1/Moksha/Moksha/2002/26.txt]

No karabəľ-ś ***ašəź*** ***kuʟcəndа, iź*** ***šarkśńə***
but vessel-NOM.DEF.SG NEG.PST1.3SG obey.CNG NEG.PST1.3SG turn.CNG
af śej, af tov.
NEG here.LAT NEG there.LAT
'But the vessel didn't obey, didn't turn this way or that way.'

The frequency of usage can also clarify the relationship of *aš-* and *iź-*. The fundamental assumption of the negative existential cycle is that in the intermediate stage B > C, the younger verbal negator that has developed from a negative existential gradually substitutes the older verbal negator. If we assume that there is competition between *aš-* and *iź-*, it should be possible to capture the current state of that competition by determining whether one is more common than the other in contemporary language.

Table 8 summarizes the frequency of occurrence of *aš-* and *iź-* in the subjective conjugation in the MokshEr corpus. The table provides the number as well as the percentage of occurrence of each personal form. As can be seen, the MokshEr auxiliary *aš-* most commonly occurs with first and second person subjects, whereas *iź-* is slightly more common with third person subjects. As a tentative hypothesis, it could therefore be proposed that the younger auxiliary *aš-* has substituted the original *iź-* in non-third person forms faster than in third person forms. A possible explanation for this is that the third person forms are more frequent than the others and may have resisted the change more persistently. After all, past tense auxiliaries occur most often when the subject is in the third person, with the singular being more frequent than the plural. The number of occurrences of *aš-* is not far behind *iź-* even in the third person forms, as *aš-* appears in almost half of all the constructions.

Table 8: The subjective conjugation of *aš-* and *iź-* in the MokshEr corpus.

	aš-			***iź-***			**Total**
1SG	*ašəń*	175	82%	*iźəń*	39	18%	214
2SG	*ašəť*	43	88%	*iźəť*	6	12%	49
3SG	*ašəź*	734	44%	*iź*	921	56%	1655
1PL	*ašəmä*	29	76%	*iźəmä*	9	24%	38
2PL	*ašəďä*	10	100%	*iźəďä*	0	0%	10
3PL	*ašəśť*	202	45%	*išť*	244	55%	446
							2412

Indeed it can be argued that the number of the non-third person forms in this corpus is rather small and interpretations must therefore be made cautiously. This need for caution is even more essential when analyzing the relationship of *aš-* and *iź-* from the perspective of the objective conjugation. Table 9 presents the data of the past tense auxiliaries that occur with an object in the singular and Table 10 for those with a plural object. As the data are extremely scarce, the frequency of occurrences is displayed in terms of the number, not in percentages. As can be seen, the frequency of all forms of the objective conjugation is extremely low, except for the forms of the singular third person objects. Even so, there is a clear tendency for *aš-* to be more common than *iź-* throughout the paradigm. The only exception is the form with a third person plural subject and a first person plural object. This ratio, nonetheless, can be regarded as being unreliable, as only one example of *iź-* and no examples of *aš-* were discovered in this category.[9]

Table 9: Objective conjugations of *aš-* vs. *iź-* in the MokshEr corpus (singular object).

O →	**1SG**				**2SG**				**3SG**			
S ↓	***aš-***		***iź-***		***aš-***		***iź-***		***aš-***		***iź-***	
1SG	–		–		*ašijťəń*	1	*iźijťəń*	0	*ašińä*	74	*iźińä*	5
2SG	*ašəmajť*	3	*iźəmajť*	0	–		–		*ašiť*	35	*iźiť*	0
3SG	*ašəmań*	8	*iźəmań*	1	*ašəńźä*	0	*iźəńźä*	0	*ašəźä*	242	*iźəźä*	11
									~ ašəź	4		
1PL	–		–		*ašəďäź*	1	*iźəďäź*	0	*aš əśk*	25	*iźəśk*	3
2PL	*ašəmaśť*	1	*iźəmaśť*	0	–		–		*ašəśť*	5	*iźəśť*	0
3PL	*ašəmaź*	6	*iźəmaź*	1	*ašəďäź́*	1	*iźəďäź*	0	*ašəź*	66	*iźəź*	4

The frequencies of occurrence suggests there is in fact competition between the negative auxiliaries *aš-* and *iź-*. Even though the auxiliaries can be used interchangeably in the same contexts, *aš-* seems to be selected more often than *iź-*. This could indicate that a gradual substitution of the older auxiliary by the

[9] As there are 6 person-number categories in Moksha, the combinations of subject and object person in the objective conjugation would theoretically render 36 different endings in each table, but in practice, the number is smaller. This is because some of the forms are impossible and because there is rather extensive syncretism in the forms. Note also that in the case of *aš-*, there are two possible endings for 3SG>3SG – one that is in accordance with the same form of *iź-* and another in which the final vowel has been dropped, making the form identical to that of 3PL>3SG and 3PL>3PL. (See Trosterud 1994 and Keresztes 1999 for more details on the objective conjugation in the Mordvin languages.)

Table 10: Objective conjugations of *aš-* vs. *iź-* in the MokshEr corpus (plural object).

O →	1PL				2PL				3PL			
S ↓	***aš-***		***iź-***		***aš-***		***iź-***		***aš-***		***iź-***	
1SG	–		–		ašəďäź	0	iźəďäź	0	ašińä	8	iźińä	1
2SG	ašəmašť	1	iźəmašť	0	–		–		ašiť	0	iźiť	0
3SG	ašəmaź	1	iźəmaź	1	ašəďäź	1	iźəďäź	0	ašəźəń	33	iźəźəń	2
1PL	–		–		ašəďäź	0	iźəďäź	0	ašəśk	2	iźəśk	0
2PL	ašəmašť	0	iźəmašť	0	–		–		ašəšť	4	iźəšť	0
3PL	ašəmaź	0	iźəmaź	1	ašəďäź	1	iźəďäź	0	ašəź	40	iźəź	0

newer one – based on the negative existential – is in progress.

7 The development of Moksha *aš* and *aš-*

7.1 The negative existential *aš*

I mentioned in the introduction that the origin of the Moksha *aš* is uncertain. The same applies to the negative existential *araś* that occurs in the closest sister language, Erzya. The etymology of these two negative markers has been discussed in detail in earlier literature (see Hamari 2007: 107–113; Hamari 2013: 477–479), which is why I provide only a short summary on the development of the Moksha *aš ~ ajaš*. As I observed previously, the Moksha *aš ~ ajaš* and the Erzya *araś* most likely do not share an etymological connection. This means that both existentials have probably developed after the split of Proto-Mordvin. There is also no positive evidence of an earlier negative existential in the protolanguage. Regarding the origin of the Moksha *aš ~ ajaš*, two hypotheses have been proposed:

1) According to Klemm (1934: 388), *aš* could have originated from a combination the negative particle in **a* and the Moksha verb *ašč:ə- ~ aš:ə-* 'be, be situated' (~ Erzya *ašťe-* 'id.') that originally would have taken the connegative suffix in **-k* (**a-ašč:ə-k* > **ašk* > *aš*). The longer variant *ajaš* developed from a form in which /*j*/ was introduced to prevent hiatus (**a-j-aš* > *ajaš*).
2) According to Bartens (1996: 79), *aš* could have originally been a noun with meanings such as 'non-existence' or 'poverty'. Bartens elaborates that the variant *ajaš* could have an emphasizing prefix *aj-*, which is also sometimes added to the negative particle *af* (> *ajaf*).

Klemm's assumption would fit the outline of the negative existential cycle proposed by Croft (1991), but its etymological explanation is questionable. The negative particle *a* and its variant *aj* that occurs in the front of a verb with a word-initial vowel are only attested in Erzya, while the Moksha equivalent of the Erzya *a* is *af*. In other words, I am more inclined to agree with Bartens, although the noun *aš* 'non-existence; poverty' also lacks etymology. Nonetheless, considering the non-verbal conjugation and the use of *aš* as a noun, it is justified to assume that *aš* was not originally a verb but a nominal item.

7.2 The negative auxiliary *aš-*

Theories on the origin of the Moksha past tense auxiliary *aš-* have always taken into account its relationship to the negative existential *aš*. The traditional view (originally presented by Szinnyei 1884: 148) is that the auxiliary developed when verbal conjugation was introduced to the negative existential marker. However, there are both semantic and functional problems with the assumption that a negative marker used primarily with the existential present tense would begin to be used as a past tense negative auxiliary in verbal predicates without acquiring other functions as a negator of verbal clauses. In Hamari (2007: 275; 2013: 480), I argue that the auxiliary *aš-* may actually have originated as a combination of the existential *aš* and the older negative auxiliary *iź-*. Thus, the development of the auxiliary *aš-* would represent an instance of the negative existential cycle where the negative existential begins to be used in verbal negation as a reinforcement for the regular verbal negator (cf. Croft 1991: 10–11).

It has been suggested that the negative existential marker *aš* could have originally been attached to the older negative auxiliary *iź-* for emphasis (as in 1SG **aš* + *iźəń* > **ašəźəń*[10], 2SG **aš* + *iźəť* > **ašəźəť* etc.) (Hamari 2007: 273–275; Hamari 2013: 479–480). As the construction lost its emphatic force, it was analogically adapted to the conjugation of the auxiliary *iź-* by dropping the element *-əź-* (for example, 1SG **ašəźəń* > **ašəń*, 2SG **ašəźəť* > *ašəť*). The element *-əź-* has nonetheless been preserved in the first and second person forms of the subjective conjugation in the dialect of the Kovylkino district; Ščemerova (1972: 178) observes that this dialect has forms containing the element *-əź-* which is absent from other dialects (Kovylkino: 1SG *ašəźəń* 'I did not', 2SG *ašəźəť* 'you did not'). These dialectal forms could be regarded as transparent relics of the fusion of the existential and the original past tense negative auxiliary.

[10] In Moksha, vowels other than *a* and *ä* are generally reduced in non-initial syllables and this means that the change *i* > *ə* in the construction is fully plausible.

Another important point is that although the first and second person forms as well as the third person plural form of the auxiliary *aš-* are the regular first past tense forms of lexical verbs (such as cf. 1SG PST1 *pala-**ń*** 'I kissed' ~ *ašə-**ń*** 'I did not'), the third person singular is irregular (cf. 3SG *pala-**ś*** '(s)he kissed' ~ *ašə-**ź*** '(s)he did not'). As the only verb that has a voiced palatalized sibilant as a third person singular marker is the negative auxiliary *iź-* (3SG *iź* '(s)he did not'), it can be argued that the fusion of the original existential and the auxiliary continues to be visible in the singular third- person form of the subjective conjugation of the auxiliary *aš-* (3SG *ašəź* < * *aš* + *iź*).

One question still remains: what were the circumstances that led to the agglutination of existential *aš* and the past tense negative auxiliary *iź-*? There are no traces of *aš* functioning to emphasize negation which, in my opinion, means that we could search for answers in the context of *aš* in the past tense meaning, that is, as a pro-sentence.

As discussed in §5.4, the Moksha invariant *aš* is used as a pro-sentence, as a one-word answer to a question when it contains a clause that is existential, possessive or locative, but also when the question has a verbal predicate in the first past tense. This clause-initial position (30a) could have offered a possibility for an agglutination of the invariant *aš* and a following past tense auxiliary (30b), accompanied by the reduction of the vowel *i* in an unstressed position. The next step in this development would have been the agglutinated auxiliary form **aš-əź* adjusting to the conjugation of the older auxiliary *iź-*, and the disappearance of the element *-əź-* (30c). A final observation is that the invariant *aš* could also appear as a one-word answer with the new negative auxiliary *aš-* (30d). It is important to note that steps (30a), (30c) and (30d) are still possible in contemporary Moksha and even (30b) is possible in the Kovylkino dialect.

(30) Question:

– *mora-ť* *aľi aš?*
sing-PST1.2SG or NEG
'Did you sing or not?'

Answer:

a. – *aš,* *iźəń* *mora.*
NEG NEG.PST1.1SG sing.CNG
'No, I did not sing.'
>

b. – *aš-əźəń* *mora*
NEG-NEG.PST.1SG sing.CNG
'I did not sing.'
>

c. – *ašəń* *mora.*
NEG.PST.1SG sing.CNG
'I did not sing.'
>

d. – *aš, ašəń* *mora.*
NEG NEG.PST1.1SG sing.CNG
'No, I did not sing.'

Veselinova (2013: 127–133) observes that the process of negative existentials developing into a pro-sentence and then into a standard negator has also been observed in other languages.

7.3 Discussion

Moksha could be regarded as a language in Stage B of the negative existential cycle proposed by in Croft (1991) because it has separate negative markers for verbal negation and for the negation of existential clauses. According to Croft, the negative existential marker may be found to function in ways that previously were characteristic of some other negative markers. Thus, the negative existential begins to be used even in the negation of verbal clauses, and in time, this existential displaces the original negative marker of verbal clauses. When this type of displacement occurs, the negative existential becomes the only negative marker for verbal and existential clauses, and thus the cycle reaches the third stage, stage C. Croft's hypothesis is that the transition from stage B to C can proceed in the following ways:

1) "the negative existential may compete with the ordinary verbal negator, sometimes being used instead of it"
2) "the negative existential can reinforce the (presumably older) regular verbal negator"
3) "(there is) only gradual substitution of the negative existential for the verbal negator in only part of the verbal grammatical system"

(Croft 1991: 9–11)

The Moksha negative existential is not necessarily the result of an older negative marker of verbal clauses fusing with a positive existential, but the negative existential could also originally be a noun. Yet the further development of the negative existential displays characteristics of the cyclic development described by Croft, as the existential has penetrated the sphere of verbal negation by becoming a negative auxiliary of past tense verbal predicates. All in all, there are evident traces of all three means that Croft described. Thus, due to the use of the Moksha negative existential as a pro-sentence, the existential became used to possibly reinforce the older verbal negator (2) and subsequently a new verbal negator arose. The new negator that was based on the existential began competing with the ordinary negator and became the most frequently chosen option (1). Finally, the new negator has not supplanted the entire negation system, but this form is only used in one part of the verbal grammatical system (3): to negate past tense verbs.

Etymological evidence suggests that the time span of the evolution of the Moksha negative existential and its development into a negative auxiliary spans approximately one thousand years. As there is no cognate for the Moksha negative existential in the closest sister language, Erzya or in any other Uralic language, this negative existential cannot be dated beyond the division of Proto-Mordvin that began around the eighth century.

8 Conclusions

I have demonstrated that *aš* occurs in many negative constructions of Moksha and has varied inflectional properties in different clausal functions. It is invariant as a negative pro-sentence, and it is likewise invariant in present tense existential and possessive clauses, with the exception of taking the second past tense marker when necessary. In locative clauses *aš* is conjugated in the present and the second past tenses. As a noun, *aš* is subject to derivation and case inflection and finally, as a past tense negative auxiliary, *aš-* is exclusively conjugated in the first past tense and used only in verbal clauses.

There are many possible reasons for the negative existential *aš* developing different functions. It may have originally been a noun meaning ‘non-existence; poverty’ and acquired personal suffixes in the predicate position of non-verbal clauses, such as in existential and possessive expressions. It also became an invariant negative pro-sentence in contexts where the other one-word negator *af* could not appear. In this clause-initial position, *aš* may have agglutinated into the earlier negative auxiliary *iź-* and created its own past tense personal conju-

gation. Consequently, both *aš-* and *iź-* are used as past tense negative auxiliaries in contemporary Moksha. The higher frequency of *aš-* may indicate that it is gradually replacing the original auxiliary.

Finally, *aš* has a longer invariant form *ajaš* which is only found in present tense existential and possessive clauses as well as a negative word for 'no'. Similarly, the particle *af* has the variant *ajaf*, which suggests the prefix *aj-* was originally most probably an emphasizing element.

ISO codes

Erzya: myv
Moksha: mdf

Sources

Mokša = Мокша. 1998 (1).
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Abbreviations

1	first person	INE	inessive case
2	secont person	INF1	first infinitive
3	third person	INF2	second infinitive
ABL	ablative case	INF3	third infinitive
CLT	clitic	LAT	lative case
CNG	connegative	NEG	negative
COMP	comparative case	NMLZ	nominalizer
COND	conditional mood	NOM	nominative case
CONDCONJ	conditional-conjuctive mood	OPT	optative mood
		PL	plural
CONJ	conjuctive mood	POSS	possessive suffix
DEF	definite	PRS	present tense
DES	desiderative mood	PST1	first past tense
DIM	diminutive	PST2	second past tense
ELA	elative case	PTCP	participle
EXTGEN	extended genitive	Q	question particle
FREQ	frequentative	SG	singular
GEN	genitive	TRA	translative
ILL	illative case	VOC	vocative
IMP	imperative mood		

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Chapter 3

The negative existential cycle in Chadic

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1 Introduction

In this paper, I consider the applicability of the types and stages of Croft's (1991) Negative Existential Cycle (henceforth NEC) to the Chadic language family – a family which already exhibits a cross-linguistically unusual negation system. In Croft's framework, there are three types of languages, A, B, and C that form a diachronic cycle. The direction of change is A~B, B~C, and C~A, where a special negative existential form arises, subsequently comes to be used as a verbal negative, and is then supplemented by a positive existential so that it is restored to a regular negative + existential construction. In brief, these internally variable stages represent historical changes in process as negative existential predication comes to mark verbal negation. Croft's types and stages are summarized here:

Type A: There is no special negative existential predicate. The affirmative existential predicate is negated by the ordinary verbal negator.

Type B: There is a special negative existential marker that is distinct from the ordinary verbal negator.

Type C: The negative existential predicate is identical in form and position to the verbal negator.

A~B: A special negative existential predicate is found in addition to the regular negative existential form.

B~C: The negative existential predicate begins to be used for ordinary verbal negation.

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C~A: The negative-existential- cum-verbal-negator is in the process of being reanalyzed as only a negative marker and a regular positive existential verb begins to be used with it in negative existential constructions.

I find examples of most – though not all – of these types and stages in the Chadic family. However, while some languages fit neatly into given stages, this work follows previous scholarship (e.g. Veselinova 2016) in suggesting that languages sometimes exhibit overlap between types or stages. Beyond identification of the NEC in Chadic, a goal of this paper is to suggest that an exploration of the NEC is illuminative in identifying sources of verbal negation, taking the Chadic family as an example. In Chadic, there is great variation in the expression of negation in terms of phonological and morphological form as well as the number of markers used in negative constructions. Existential predication appears to be one pathway through which new forms come to serve as verbal negators.

All data included in this paper comes from published grammars. According to Glottolog (Hammarström et al. 2018), there are roughly 200 Chadic languages. These are spoken across Northern Nigeria, Southern Niger, Southern Chad, the Central African Republic, and parts of Northern Cameroon. Of these, there exist an approximate 60 published grammars or grammatical sketches. Following Newman (2000), these languages can be divided into four subgroups: Western, Central, Eastern, and Masa. There is an unequal distribution of languages across the family with the largest numbers belonging to the Western and Central subfamilies and a mere ten languages belonging to Masa. Scholarship has largely favored Western and Central languages and these comprise the majority of languages presented in this paper. The languages included herein were selected primarily through convenience. In total, I had access to an approximate 30 grammars and included one to two representatives of each type or stage. Some grammars were published several decades ago, meaning the level of description and inclusion of evidence fell below contemporary standards; namely, some grammars included glossless examples with little to no accompanying contextual information. In cases where there are no glosses, I have reconstructed them myself.

The organization of the paper is as follows. I begin with a brief introduction of interesting issues within the Chadic negation system. This is followed by a presentation of examples of languages within each of the types and stages of the NEC. I then present some examples of languages that do not fit neatly into any one type or stage. This is followed by a discussion of the implications of the data as a whole. In the final section, I present common sources for verbal negators in Chadic and discuss the merits of including existential predication as one of these

sources.

2 Negation in Chadic languages

Before addressing the NEC, it should be acknowledged that the verbal negation system itself is quite unusual in Chadic. In a study of negation in 345 languages worldwide, Dryer (1988) finds that VO& V_{NEG} languages – those where the negative marker follows the verb – are a typological phenomenon unique to Central Africa and, to a lesser extent, to New Guinea. Though there are isolated cases of VO& V_{NEG} languages around the world, there is nowhere with such a concentration of examples as is found in these two regions. It has been observed as early as Jespersen (1917) that there is a cross-linguistic preference for negators to occur directly before the verb, yet in Chadic languages, which are primarily SVO, the negative marker occurs not only after the verb, but in the final position of the phrase. In the great majority of cases, it may be followed only by time adverbials and interrogatives.

Additionally, many Chadic languages employ double negation, though Proto-Chadic negation appears to have been single-marked in clause-final position (Newman 1977). In his classic study of negation, Dahl (1979) finds that where there is double negation in his sample, the two negators nearly always surround the verb. He takes this to suggest a general tendency for negatives to occur as close to the finite element of the phrase as possible. Yet this rarely what happens for Chadic, as the first negator in Chadic often occurs before the subject and the second negator often occurs after the object where the dominant word order is SVO. Indeed, Dahl (1979) cites West African languages as typologically unusual among his sample.

There is still much to be discovered regarding negation in Chadic, including the sources and pathways behind the various forms that occur.

3 The negative existential cycle across Chadic languages

If a given language shows evidence of one stage of NEC, then presumably, somewhere in its history, it has also passed through the other stages or is yet to pass through more. In Chadic languages, it is difficult to determine this time depth given the sparsity of resources and examples provided in grammars on individual languages. I therefore focus more on determining whether there is evidence of the stages of NEC across the Chadic language family, rather than focusing on the evolution of negation within individual languages.

The NEC, as an explanatory framework, illuminates the relationship between the domain of negative existentials and of verbal negation. Negative existential predicators differ from verbal negators by virtue of the fact that they indicate a state rather than an action or a process; they serve to indicate the absence of an entity and to pragmatically remove a referent from the scene (Veselinova 2013). Verbal negation, on the other hand, refers to the negation of declarative phrase with a verbal predicate in the sense of Dahl (2010) and Miestamo (2005). Given the differences in functions of these domains, it is interesting that they should interact so closely. In this section, I present examples of Chadic languages that fit each of the types and stages of the NEC.

3.1 Type A

In Type A languages there is no special negative existential predicator, but the negation of the affirmative existential is performed by the verbal negator. This is common in Chadic languages. In Pa'anci, a West Chadic language, the affirmative existential *ani* occurs with the regular verbal negator *wa* to negate existence as in (1a). The negator *wa* also occurs in final position in utterances with verbs and is post-posed only by a sentence-level emphatic particle *na* as in (1b). Skinner (1979: 102) notes that *ani* is derived from a "locative verb feature bundle" *ánà,* followed by an associative preposition *i.* (1c) is an example of an affirmative existential utterance.

(1) Pa'anci (Skinner 1979: 102, 150)

a. ***ani*** *ambi* ***wa***[1]
one.CONT.ASSC water NEG
'There is no water.'

b. *ná munde na dava* ***wa*** *na*
3SG say 3SG come NEG EMPH
'He said he didn't come.'

c. ***ani*** *aci ahari pangwa*
one.CONT.ASSC guinea-corn inside corn-bin
'There is guinea corn in the bin.'

It should be noted that *ani* and *wa* occur at opposite ends of the phrase. The distance of the verbal negator from the existential predicate suggests the sepa-

[1]All Pa'anci glosses were constructed by the author

rate functional domains of negation and existential predication, making the frequency of Type A understandable.

In Gidar, a Central Chadic language, the affirmative existential verb *tà* (from the copula) must co-occur with the verbal negator *ɓà* in order to mark negative existence as in (2a). The marker *tà* is purely existential and does not code existence in a location. All negative clauses in Gidar are marked by the clause final particle *ɓà* as in (2b). (2c) is an example of an affirmative existential utterance.

(2) Gidar (Frajzyngier 2008: 208, 261)

a. *ɗə́f* ***tà****-y* *án* *də-dàw* *kàyí-t* ***ɓà***
man be-3M REL 3M-D.PROG want-3F NEG
'There is no man who wants her.'

b. *mə́ɓlìy* *də-dàw* *dáw* *sá* ***ɓà***
chief 3M-D.PROG walk even NEG
'The chief didn't even walk.'

c. *ɗíi* ***tà****-N* *də-dà(w)* *kái-tə́-nì*
men be-3PL 3M-D.PROG want-3F-PL
'There are many men who desire her.'

As there is no special negative existential form in Gidar, it is clearly a Type A language.

3.2 A~B

In this synchronically variable stage, there is a special negative existential form in addition to the regular negative existential form. Croft (1991: 7) describes the special negative existential as "usually but not always a contraction or fusion of the verbal negator and the positive existential form".

In Hausa, a West Chadic language, there are two negative existential forms, *bâ* and *bābù*, shown in (3a), which are distinct in quantity and tone from the verbal negators *bābù* used in tense, aspects, and moods other than continuous and subjunctive, as in (3b). In negative continuous utterances, the verbal negator is *bā*. Generally, the two negative existentials may be used interchangeably, though the former occurs more frequently when there is a nominal predicate. When there is no overt object, only *bābù* can be used. The word *bābù* is also sometimes used colloquially to mean 'no', often as an elliptical response or as a sign of disagreement.

(3) Hausa (Newman 2000: 179, 357)

a. ***bābù/bâ*** *sauran àbinci*
NEG.EX other food[2]
'There is no food remaining.'

b. ***bà*** *zā mù biyā sù* ***ba***
NEG FUT 3PL pay 3PL NEG
'We will not pay them.'

The affirmative existentials in Hausa, *àkwai* and *dà*, bear no resemblance to the negative existentials nor to the verbal negators. However, like the negative existential predicator, both occur in phrase-initial position.[3]

(4) Hausa (Newman 2000: 178)

a. ***àkwai*** *wani bàkō à kōfà*
EXIST textscindef stranger PREP door
'There is a stranger at the door.'

b. ***dà*** *kudɪ*
EXIST money
'There is money.'

In Hausa, then, there is a second negative existential form, but there is no evidence that this is the result of fusion with an affirmative existential. Newman (2000) addresses the dispute regarding the relation between *bābù* and *bâ*. Some, such as Eulenberg (1971) take *bābù* as the original and *bâ* to be a phonologically reduced form. Newman (1971), however, proposes that the source for this alternate form *bābù* is a fusion *bâ* 'NEG' + *ābù* 'thing', a change attested in other Chadic languages as well. As evidence against *bābù* as basic, he cites the fact that it takes independent rather than object pronouns as its complement. Additionally, Newman notes that *bâ* might have been borrowed from Kanuri, as the negative existential therein is of the same shape.

It is possible that *bâ* is losing its distinction as a negative existential, given its resemblance to the clause-initial verbal negator *bà,* lending to the fusion of a new form *bābù* to be preferred in certain areas of the grammar. Evidence for this lays in the use of *bābù* in emphatic utterances, as in dispute and disagreement. Croft (1991) discusses the "close diachronic association" between negative existentials,

[2] All Hausa glosses have been constructed by the author

[3] *dà* shares the same morpheme as the preposition 'with'. While *dà* is only followed by an independent, *àkwai* makes use of weak object pronouns. Furthermore, *dà*, unlike *àkwai*, can never be stranded unless it is followed by *àkwai*; indeed, in some dialects, *dàkwai* has fused into a single word.

negative interjections and verbal negators in connection with this stage. Hausa is of A~B because there is a second negative existential form which has some restricted uses.

In Lele, an East Chadic language, the locative anaphora, *màní*,[4] used to mark affirmative existence, as in (5a–5b). This form can be negated by the verbal negator, *ɗé*, as in (5c), in accordance with Type A. Additionally, there is a form *wíléŋ* 'lack' which serves as a negative existential, as in (5d).

(5) Lele (Frajzyngier 2001: 196)

a. *kùmnó* ***màní***
God there
'God exists'

b. *ɗíglè káŋ kàsà* ***màní***
year DEM corn there
'there is corn this year'

c. *kùmnó* ***màní ɗé***
God exist NEG
'God does not exist'

d. *kùmnó* ***wíléŋ***
God not exist
'God does not exist'

Given that the form *màní…ɗé* can be substituted for *wíléŋ* in the same utterance, there does not appear to be restriction of these forms.

3.3 Type B

In Type B there is a special negative existential marker which is distinct from the verbal negator. Muyang, a Central Chadic language, is exemplary of this type. Here, the negative existential *bī* differs from the affirmative existential *bù* and from the verbal negator *dò*. Verbal negation in Muyang is marked with *(n)dò* in clause final position, with the prenasalized form indicating completed actions.

(6) Muyang (Smith & Gravina 2010: 27, 118)

a. *ā-**bī***
3SG-NEGEX
'He/she is not there.' or 'there isn't any.'

[4] It should be noted that the primary role of *màní* is locative anaphora, though it is used on occasion to mark affirmative existence as in the examples given.

b. *ā-**bù***
3SG-EXIST
'He/she is there.' or 'there is some.'

c. *kā-ɮāx* ***dò***
2SG-roar NEG
'You do not cry out.'

A perhaps less obvious example of a language belonging to Type B is Mina, a Central Chadic language where the negative existential construction appears to be diachronically young. Verbal negation in Mina is marked by a clause final particle *skù* as in (7a). The verbal negator has scope over the entity immediately preceding it. The affirmative existential *ɗáhà* (often shortened to *ɗá*) must co-occur with the verbal negator *skù* to create a negative existential predicate as in (7b).

(7) Mina (Frajzyngier & Johnston 2005: 79, 234)

a. *á tì-y-á-h hà nék* ***skù***
3SG see-GO-2SG 2SG good NEG
'He does not see you as a good person.'

b. *kó mə̀ lə́ɓ-yíì* ***ɗá skù***
QUANT REL wet-PL EXIST NEG
'Not even one [page] was wet.'

Mina differs from other Chadic languages in that the existential predicate and the verbal negator neighbor one another. It may be that this fact contributes to the clipped *ɗá* existential form in negative existential predicates that is typically in its full form in affirmative existentials as in (8).

(8) Mina (Frajzyngier & Johnston 2005: 55)
tèbéŋ tə́ ndìr ***ɗáhà***
granary GEN sorghum EXIST
'There is a granary of sorghum'

It appears from the available data that *ɗá skù* is coming to serve as its own lexical unit. Evidence for this is provided by the following example where *ɗá skù* can constitute a complete clause.

(9) Mina (Frajzyngier & Johnston 2005: 269)
mə́ mbə́ɗ zə́ v-yíì ***ɗá*** *skù*
REL surpass EE who-PL exist NEG
'Who is superior? Nobody.'

Though the negative existential form here is transparent, it appears to be stable.

3.4 B~C

Croft (1991: 9) calls this synchronic variable stage "the most important step in support of our hypothesis" and it certainly seems to generate the most interesting questions. Here, the negative existential predicator begins to be used for ordinary verbal negation. The negative existential may compete with the verbal negator, sometimes being used instead of it.

Hdi, a Central Chadic language, is probably the best example of this stage. Here, verbal negation is typically marked by *á … wà/wù* as in (10a). The forms *wà* and *wù* are free variants though some speakers show preference for one or the other. The affirmative existential is *màmú* (sometimes reduced to *màá*) and cannot occur with the verbal negator as in (10b). In order to negate existence, the form *xàɗú* 'lack' is used with a single negative marker at the end of the clause, as in (10c).

(10) Hdi (Frajzyngier & Shay 2002: 71, 458, 476)

a. *ɗvà* ***'á*** *xdí-xà tá l'école* ***wù****, ká-'á*
like NEG Hdi-PL OBJ school (Fr.) NEG COMP-3SG
'"Hdi do not like school," he said.'

b. *índà dimanche ná* ***màmú*** *marriage ndánà*
every Sunday (Fr.) COMP EXIST marriage now
'Every Sunday there is a marriage now.'

c. ***xàɗú*** *ìmí* ***wà***
lack water NEG
'There are no rains.'

Additionally, there is evidence that *xàɗú* is coming to replace the first verbal negator, not just in existential utterances, but in verbal utterances as well. Frajzyngier & Shay (2002) note that *xàɗ* codes negative subjunctive in imperfective as well as negative imperfective in the indicative mood as in (11a). These authors also state that the *xàɗ … wà* frame codes "pragmatically dependent negative clauses" such as negative relative clauses, negative conditional protases, and negative conditional and temporal apodoses (p. 463), as in (11b).

(11) Hdi (Frajzyngier & Shay 2002: 124, 194)

a. ***xàɗ****-ká kà ŋ̀ghá tsá* ***wà***
lack-2SG SEQ look DEF NEG
'You should not look at it.'

b. ***xàɗ*** *xàŋ tà ksá-f-tà dágálá* ***wà***
lack 3PL IMPF catch-UP-REF many NEG
'They do not catch many.'

There may be something similar beginning to happen in Wandala, though this is underdeveloped. Wandala is a Central Chadic language where verbal negation is marked by *k* (clause-internally) or *kà* (when in phrase final position). The negator is placed after the verb and before the nominal subject or object as in (12). Only when the verb is not followed by an argument does the negative particle occur clause finally.

(12) Wandala (Frajzyngier 2012: 208)
tsà-n-á ***k*** *nábbà*
stop-3SG-GO NEG Nabba
'He did not stop Nabba.'

Negative existential clauses are formed through the use of *ɓákà* or *ɓáakà* in clause-initial or clause-final position, depending on whether the information presented is old or new.

(13) Wandala (Frajzyngier 2012: 327)
á yà-wá əə́lvà-á-rwà ***ɓákà***
well 1SG-COM word-GEN-1SG NEGEX
'Well, I have no words.'

Generally, the negative existential and the verbal negator do not co-occur, though there are some rare instances in which they do, as in (14a). It is unclear what function is served by combining these elements, but it is possible that the final *kà* here is simply a clipped form of the negative existential, as there are cases where the negative existential is repeated, as in (14b).

(14) Wandala (Frajzyngier 2012: 464, 583)

a. *ŋán kínì sé à hàyà bà dó nə ŋánnà* ***ɓákà*** *pédà-á-r*
3SG C.FOC only 3SG like FOC man DEM DEF NEG.EX means-GEN-3SG
nà ***kà***
DEM NEG
'She, she likes only the man that does not have any means.' [or 'only useless men']

b. ***ɓákà*** *ùrà* *tà* *tàttàyà à* *j-ú* *g-íyà* ***ɓákà***
NEG.EX person 3PL search 3SG surpass-VENT TO-1SG NEG.EX
'One does not look for a person to surpass me.'

The important question that emerges from the data from Hdi (and, to a lesser extent, from Wandala) is what purpose is served by the enforcement of the verbal negator by the negative existential.

3.5 Type C

In this type, the negative existential is identical in form and position to the verbal negator, demonstrating "polysemy between negative existential meaning and verbal negation" (Croft 1991: 12). This occurs rarely in Chadic languages, but appears in Gude, a Central Chadic language.

In all TAM in Gude, the verbal negator, *pooshi,* exactly resembles the negative existential, *pooshi*, as exhibited by the negated verbal phrase in (15a) and the negative existential utterance in (15b).

(15) Gude (Hoskison 1983: 71, 90)

a. ***pooshi*** *Musa kii* *faara*
NEG Musa threw stone
'Musa did not throw a stone.'

b. ***pooshi*** *nwanwu də Gyala*
NEG.EX chief at Gyala
'There is a no chief at Gyala.'

The negative existential does not appear related to the affirmative existential *tə'i*; rather, Hoskison (1983) suggests that *pooshi* is formed from the *pə* used in phrases of refusal and *uushi* 'thing', as also attested in Hausa above. In the completive aspect, there is an alternative verbal negation strategy which uses *ma…mə* surrounding the verb stem as in (16).

(16) Gude (Hoskison 1983: 91)
ma*-ka-****mə*** *Musa faara*
NEG-throw-NEG Musa stone
'Musa did not throw a stone.'

This negative completive strategy is rare and exists alongside the more typical strategy of marking verbal negation through use of the negative existential.

3.6 C~A

I do not have strong evidence for a synchronically variable C~A stage in Chadic where the negative-existential-cum-verbal-operator comes to be reanalyzed as an ordinary verbal negator and begins to occur with the affirmative existential in negative existential clauses. As noted by Croft (1991: 19), this is perhaps unsurprising given that Type C is relatively unstable and typologically uncommon. He reasons that the lack of an existential predicate is anomalous in the minds of speakers, leading to the introduction of a positive existential relatively quickly, thus returning a given language to Type A.

4 Overlap between types and stages

Veselinova (2016) has pointed out that overlap between types occurs to a greater extent than perhaps conceded by Croft (1991). In this section, I consider a few examples of Chadic languages where the data available does not warrant easy placement in any one type or stage.

4.1 Overlap of Type A and Type B

As mentioned early in the paper, in Chadic it is common for there to exist two options to negate existence within the same language. In the first, a negative existential predicate is formed through a positive existential and a verbal negator (Type A). In the second, there is a distinct negative existential predicator (Type B). Often these forms of negation are used interchangeably, though sometimes the negative existential serves additional functions. The presence of additional functions suggests that the negative existential in these languages is newer than the verbal negator. However, it is not the case in all languages that a clear line can be drawn between what functions are performed by each of these types.

In Ngizim, a West Chadic language, the negative existential *góo* as in (17a) differs from the verbal negator *bái* as in (17b). Consistent with Type B, the two may not co-occur. The form *góo* can additionally mean 'without', but is not limited to this meaning.[5]

(17) Ngizim (Schuh 1972: 455)

[5] It is quite common for negative existentials to have an additional 'without' meaning (Veselinova 2013).

a. *zaaman Mai Maadi dá-bənci* ***goo*** *ža*
time king Madi STAT-PASS without war[6]
'The time of King Madi passed without war.'

b. *dee ii Ngwajin* ***bai***
3SG LOC Ngwajin NEG
'He didn't come to Ngwajin.'

However, consistent with Type A, the affirmative existential *naa* may also co-occur with the verbal negator *bai* to form a negative existential predicate as in (18).

(18) Ngizim (Schuh 1972: 84)
naa *mərak* ***bai***
EXIST oil NEG
'There is no oil.'

In Makary Kotoko, a Central Chadic language, the negative existential *ɗalá* in (19a) differs from the verbal negator *wa* in (19b) and the two may not co-occur, consistent with Type B. The negative existential occurs in the same position of the phrase as the verbal negator.

(19) Makary Kotoko (Allison 2012: 357, 363)

a. *nyi ro m-ú gə re əl* ***ɗalá***
thing:ABSTR MOD:F IRR-1SG say 2PL:IO NEUT:3SG:F not.exist
'I don't have anything to say to you.' (lit. thing that I say to you doesn't exist)

b. *n-gə̀-dan dó he* ***wa***
MOD:M-POSS-3PL DET:F L.P. NEG
'His father was sick.' (lit. he didn't attend his father's sickness)

However, the locative copula *nda* 'be at'[7] may also co-occur with the verbal negator to produce a negative existential phrase of Type A as in (20). Allison (2012: 347) writes, "The locative copula construction is primarily used in affirmative contexts, though I have a half-dozen examples in the corpus where it occurs in a negative clause."

[6] All Ngizim glosses constructed by the author
[7] There are examples in Allison (2012) where this marker is purely existential

(20) Makary Kotoko (Allison 2012: 21)
wáādə ***nda*** *lə* ***wa*** *ɗe halâs*
trust be.at:M PRO NEG S.R. okay
'If you don't trust me then okay (never mind)'

It is unclear whether these languages should belong to the A~B stage. An argument against including them there is that there is no evidence that the special negative existential forms are contextually restricted.

4.2 A~B and B~C

Buwal, a central Chadic language, does not fit neatly into any one variable stage. Viljoen (2013: 293) is the only Chadic author to directly address the NEC, noting that Buwal is somewhere between Type A and Type C.

In Buwal, the verbal negator is *kʷáw* as in (21a) and the affirmative existential marker is *akā* as in (21b). These two forms have fused to create the negative existential *áskʷāw*/*ákʷāw* in (21c). The combination *aká skʷāw*[8] is still found with the same meaning as *áskʷāw*/*ákʷāw*, but the former occurs with less frequency than the latter. The emergence of this special negative existential form is consistent with the stage A~B.

(21) Buwal (Viljoen 2013: 167, 454, 490)

a. *sā-ndā* *ākā á* *dámāw* ***kʷáw***
1SG.SBJ-go ACC PREP1 bush NEG
'I didn't come back from the bush.'

b. *béɮē* *nxʷā-jé* ***ákā***
enclosure goat-PL EXIST
'… there is a goat enclosure.'

c. *fāgʷālākʷ zēnéj* ***ákʷāw***
leprosy again NEG.EXIST
'There is no more leprosy (lit. Leprosy again didn't exist)'

Buwal also exhibits aspects of stage B~C where the negative existential is gradually substituted for the verbal negator in parts of the grammatical system. In Buwal, the verbal negator represents denial of a corresponding positive assertion and is pragmatically dependent, whereas the negative existential is a simple negative assertion that is not pragmatically dependent – it need not be understood in reference to an affirmative clause as in (22).

[8] The form *aká kʷāw* is never found

(22) Buwal (Viljoen 2013: 477)
sā-ká-zàm wdā ***ákʷāw***
1SG.SBJ-PFV-eat food NEG.EXIST
'I haven't eaten food.' [The speaker does not want food]

Viljoen (2013: 293) notes that Buwal is clearly not a Type C language as she has 22 examples of a 765 example corpus of verbal clauses demonstrating that the combination *aká skʷāw* can also be used for verbal negation.

5 Discussion

The findings of this paper are summarized in Table 1.

Table 1: The NEC cycle forms in Chadic

Language	Affirmative existential	Verbal negator	Negative existential(s)	Type or Stage
Pa'anci [pqa-NGA]	ani	wa	ani…wa	Type A
Gidar [gid-CMR]	tù	ɓà	tù…ɓà	Type A
Hausa [hau-NGA]	àkwai/dà	bà…ba, bā	bâ and bābù	A~B
Lele [lln-TCD]	màní	ɗé	màní…ɗé/wíléŋ	A~B
Mina [hna-CMR]	ɗáhà/ɗá	skù	ɗá…skù	Type B
Muyang [muy-CMR]	bù	bī	dò	Type B
Hdi [xed-CMR]	màmú/màá	á…wù; xàɗú	xàɗú	B~C
Wandala [mfi-CMR]	áŋkwè/áŋk	kà/k	ɓákà	B~C
Gude [gde-NGA]	tə'i	pooshi	pooshi	Type C
Ngizim [ngi-CMR]	naa	bai	aa…bai and goo	A and B
Makary Kotoko [mpi-CMR]	nda	wa	ɗalá	A and B
Buwal [bhs-CMR]	akā	kʷáw	áskʷāw/ákʷāw	A~B and B~C

I have noted in this paper that Type A languages are common in Chadic; indeed, there are examples of Type A languages beyond those included herein. Languages of this type are likely to exist for a considerable period of time due to the high level of productivity where the verbal negator applies to the existential predicate in a similar manner as it applies in negating other features of a clause. Given the period of time that this stage is likely to endure, it is understandable that there are several examples of this type. There are also a number of examples of Type B, some of which (as in Mina) appear to be diachronically young. Due

to the continued presence of a positive existential predicate, it is difficult to find languages that are purely Type B, as the Type A strategy endures.

Given constraints on time and resources, I have not addressed every Chadic language, but from the available evidence, Type C certainly appears to be uncommon. Croft (1991: 18) observes that the rarity of this type "is due to the special status of the existential situation as a 'nonverbal' predication, and to the association of negation and emphasis." Where this type does appear, it is unlikely to endure for long before a distinct existential form crops up alongside the negative existential-cum-verbal negator.

Generally, it is more common to find evidence of variable stages in Chadic languages than non-variable stages, which is unsurprising given that languages are not restricted to any one stage of the NEC at a given time; as new methods for negating existential predicates emerge, old forms are not necessarily lost, though often become restricted to certain domains of speech. The B~C stage is perhaps the most interesting in that it sheds the most light on the functions of negation and negative existential predicates, particularly the issue of which domains of the grammar begin to make use of the negative existential to perform verbal functions. Among the languages included in this paper, relevant domains include pragmatic dependence and aspect. For instance, in Hdi, the negative existential is beginning to be used to code negative subjunctive in imperfective as well as negative imperfective in the indicative mood. In Gude, though a Type C language, the negative existential performs negation in all aspects, but completive aspect has an alternative strategy in the negative. Miestamo & van der Auwera (2011) find that the restriction of aspectual categories under negation is especially apparent in African languages, most notably those grouped in Nigeria (Niger-Congo, Nilo-Saharan and Chadic). There has been additional cross-linguistic evidence that certain aspects like perfective are less compatible with negation (e.g. Schmid 1980; Matthews 1990, though see and van der Miestamo & van der Auwera 2011 for counter evidence). The question of the relationship between negation and aspect, as well as the role of pragmatic dependence, merits future study in Chadic.

6 Existentials as a source for verbal negation

Finally, an exploration of a synchronic and diachronic cycle such as the NEC has additional merit in identifying sources of verbal negators. Newman (1977) reconstructs the Proto-Chadic negative marker as **wa* in phrase final position. The verbal negative particles of many Chadic languages differ significantly from this

proto-form. Some forms are predictable through regular sound change, whereas other forms seem to have come about through different pathways.

In this section, I address some potential sources of Chadic verbal negators.

Cross-linguistically, negation and interrogatives are known to share a close relationship. Interrogatives are far less direct than negation and provide a face-saving strategy with which to express negation. In Daba, a Central Chadic language, for instance, one strategy of coding negation is through the use of the interrogative *vú* as in (23). In Mina too negation may be coded by the aspectually dependent habitual marker *ra* and the interrogative *vù* in clause final position as in (24). Here, not only is negation coded, but also the emotional state of the speaker, such as displeasure or astonishment.

(23) Daba (Lienhard & Giger 1975: 86)
dàlà dà ***vú***
money 1SG Q
'Je n'ai pas d'argent' (Lit: 'Est-ce qu'il y a d'argent')

(24) Mina (Frajzyngier & Johnston 2005: 242)
ngùl ǹá zəm skən ǹá ***r*** ***vù***
husband 1SG eat thing 1SG D.HAB Q
'My husband, he does not eat my food!'

Table 2 presents other similarities between the form of the verbal negator and the form of the interrogative within the same language.

Table 2: Verbal negators and interrogative forms

Language	Verbal Negator	Interrogative form
Pévé	tsú…mi	mi and su
Goemai	môu	mmoe
Buwal	k^{w}aw / skāw	kwá/skwá
Pero	á…m	á

An additional source for negation, the lexical item 'thing', was noted earlier in this paper with Hausa. This lexical item often combines with a lesser used negative form to create an emphatic negative form. Often, these forms may be used as independent expressions and need not be followed by an object or a complement. These are represented in Table 3.

Table 3: Verbal negators and 'thing'

Language	Verbal Negator	Lexical item 'thing'
Daba	ɗakun/kun	kə́n
Gude	pooshi	ooshi
Mina	skù	skə̀n
Kanakuru	woi…u	wói
Ngizim	bai	bài

The fusion of a negator and 'thing' can lead to a negative existential or to a verbal negator, though if a verbal negator, it has likely become semantically bleached. An examination of the processes involved in the NEC is informative regarding the relationship of these 'nothing' forms to negative existence.

There remain several negative markers unaccounted for by these findings. Some of these appear to come from existential sources. In Wandala, the negative existential *ɓákà* has come to occur in the same clause final position as the verbal negator which is *kà*. It may well be that *kà* is a clipped form of *ɓákà*. In Buwal, there is a clear relationship between the affirmative existential *akā*, the verbal negator *k^{w}áw,* and the negative existential predicator *ásk^{w}āw*/*ák^{w}āw*.

Many existential forms – both positive and negative – also contain d(v) particles which occur in mostly bisyllabic form. Table 4 lists some examples.

Table 4: Verbal negators and negative existentials

Language	Verbal negator	Negative existential
Daba	ɗakun/kun	ɗaha
Zoɗi	ɗi:…ndi	ɑɗɑ
Baraïn	dō	díjò

In Daba, the negative existential is *ɗaha,* which is nearly identical in form to the affirmative existential in the neighboring language, Mina, which is *ɗáhà*. Lamang, which is to the West of these languages, has the existential form *hà*/*xà* and Wandala to the Northeast has the affirmative existential *xàɗú*. It may be that this h(v) or x(v) form is related to the stative locative/general locative form *á* that is attested in so many languages (Uldeme, Gidar, South Giziga, Makary Kotoko, Zaar, Hona, etc.). This d(v) form, which frequently surfaces in East Chadic and

some Central Chadic languages as verbal negators, is not entirely clear, but may have been borrowed from outside the family. In any case, verbal negative forms are found in affirmative existentials which supports the notion in NEC that existential forms come to take on and lose negative functions in a cyclical manner.

7 Conclusion

In this paper I have identified most of the types and stages of Croft's (1991) Negative Existential Cycle in Chadic languages. Additionally, I have followed Veselinova (2016) in observing that not all languages fit neatly into a type or a stage and therefore it is also useful to consider overlap of types and stages. I have found that negative existentials may sometimes be sources of verbal negators in Chadic, though interrogatives and the lexical item 'thing' appear more often to provide pathways to verbal negators in this particular family. I suggest Croft's (1991) framework – especially identification of the B~C stages – sheds light on processes of negation and the relationship between negation and negative existential predication, as well as their relationship to other domains in the grammar. In Chadic, two domains of interest are aspect (especially imperfective and perfective) and pragmatic dependence.

ISO 693-3 codes for languages included

Mina	hna-CMR
Pa'anci	pqa-NGA
Gidar	gid-CMR
Ngizim	ngi-CMR
Makary Kotoko	mpi-CMR
Hausa	hau-NGA
Lele	lln-TCD
Muyang	muy-CMR
South Giziga	giz-CMR
Buwal	bhs-CMR
Hdi	xed-CMR
Wandala	mfi-CMR
Gude	gde-NGA
Pévé	lme-TCD
Goemai	ank-NGA
Pero	pip-NGA
Daba	dbq-CMR
Kanakuru	kna-NGA
Zodì	dot-NGA
Baraïn	bva-TCD

Abbreviations

1	First person
2	Second person
3	Third person
ABSTR	Abstract
ACC	Accomplishment
ASSC	Associative
C.FOC	Focus
COMP	Complementizer
CONT	Continuous
D	Dependent (aspect)
DEF	Definite marker
DEM	Demonstrative
DET	Determiner
D.PROG	Dependent progressive
EE	End of event marker
EMPH	Emphatic
EXIST	Affirmative existential
F	Feminine
FUT	Future
GEN	Marker of modification
GO	Goal orientation
HAB	Habitual
IMPF	Imperfective
INDEF	Indefinite particle
IO	Indirect object
IRR	Irrealis
LOC	Locative
L.P.	Locative particle
M	Masculine
MOD	Non noun modification marker
NEG	Negative
NEG.EX	Negative existential
NEUT	Neutral aspect
OBJ	Object
PASS	Passive
PFV	Perfective
PL	Plural marker
POSS	Possessive
PREP	Preposition
PRO	Non-human/locative pronoun
Q	Question
QUANT	Quantifier
REF	Referential
REL	Relative marker
SBJ	Subject
SEQ	Sequential
SG	Singular
S.R.	Switch reference marker
STAT	Stative
TO	Destinative preposition 'to'
UP	Verbal extension indicating movement upward
VENT	Ventive

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