Chapter 3

The negative existential cycle in Chadic

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Chadic languages, like languages of West and Central Africa more generally, are known to make use of typologically rare negation strategies. Not only do many Chadic languages exhibit bi-partite negation, there is also a tendency for the second of these two verbal negators to occur after the verb, in contrast to a cross-linguistic preference for pre-verbal negation. This particular study examines the extent to which Croft's (1991) Negative Existential Cycle (NEC) may be demonstrated across Chadic languages. Furthermore, the study explores the use of the NEC as an explanatory framework in determining sources and pathways of verbal negation in Chadic languages. An important implication of this study is that identification of the B~C stage of the NEC elucidates the relationship between verbal negation and negative existential predication, as well as the relationship between these domains and other domains of the grammar such as aspect.

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 negator, 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:

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

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

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

B~C: The negative existential predicate begins to be used for ordinary verbal negation, but is restricted to specific contexts.

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

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 available 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 available 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. Upon perusal of the approximate 30 grammars available to me, I was able to determine evidence of the cycle in 12 of these languages, three from the Western branch, eight from the Central branch, one from the Eastern branch, and none from Masa. Some grammars were produced several decades ago, meaning the level of description and inclusion of evidence fall below contemporary standards; namely, some grammars included unglossed 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 submit 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 propose 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 on the distribution of negative word order, Dryer (2009) finds that VO & V_{NEG} languages – those where the negative marker follows the verb – are a typological phenomenon unique to Central Africa (Niger-Congo, Nilo-Saharan, and Chadic) 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 most frequently but not always SVO, the negative marker occurs not only after the verb, but in the final position of the clause. In the great majority of cases, the verb may be followed only by time adverbials and interrogatives.

Additionally, many languages across the Chadic family employ bi-partite negation markers, though Proto-Chadic negation appears to have been single-marked in clause-final position (Newman 1977). In his classic study of negation, Dahl (1979: 92) finds that where there is bi-partite negation in his sample, the two negators nearly always surround the verb. He takes this to suggest a general tendency for negators to occur as close to the finite element of the clause as possible.

Yet this is rarely what happens for Chadic, as the first negator in these languages often occurs before the subject and the second negator often occurs after the object where the dominant word order is SVO. Indeed, Dahl (1979: 95) cites West African languages as typologically unusual among his sample.

3 The negative existential cycle across Chadic languages

In Chadic languages, given the sparsity of resources and examples provided in many grammars of individual languages, it is difficult to get a sense of language change over a long period of time. Thus, rather than focusing on the evolution of negation within individual languages, the focus of this study is on evidence of the stages of NEC across the Chadic language family.

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 express 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 a declarative clause with a verbal predicate in the sense of Dahl (2010) and Miestamo (2005). Given the differing functions, these domains are constantly formally distinguished, though they also interact 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 type appears to be particularly widespread in Chadic languages, appearing in at least a dozen languages surveyed, though not all are represented in this chapter for the sake of space. 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 followed 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***
one.CONT.ASSOC water NEG
'There is no water.'[1]

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

c. ***ani*** *aci ahari pangwa*
one.CONT.ASSOC 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 clause. The distance of the verbal negator from the existential predicate suggests the separate 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* (derived 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: 251, 311, 309)

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

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

c. *ɗíi* ***tà****-ŋ də́-dà*(*w*) *káí-tə́-nì*
men be-3PL 3M-DEP.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.

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

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 bi-partite verbal negator *bā…ba* used in tenses, 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. The affirmative existentials in Hausa, *àkwai* and *dà*, as in (3c) and (3d), bear no resemblance to the negative existentials nor to the verbal negators. However, like the negative existential predicator, both occur in phrase-initial position.[2]

(3) Hausa (Newman 2000: 178–179, 357)

a. ***bābù/bâ*** *sauran àbinci*
NEG.EX other food
'There is no food remaining.'[3]

b. ***bà*** *zā mù biyā sù* ***ba***
NEG FUT 1PL pay 3PL NEG
'We will not pay them.'

c. ***àkwai*** *wani bằkō à kōfà*
EX INDF stranger PREP door
'There is a stranger at the door.'

d. ***dà*** *kuɗī*
EX 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

[2] *dà* is also the morpheme used for the preposition 'with'. While *dà* is followed by an independent pronoun, *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, cf. Newman (1971).

[3] All Hausa glosses have been constructed by the author.

(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 as a solution to ambiguity. 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, 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], which is also used to mark affirmative existence, as in (4a) and (4b). This form can be negated by the verbal negator, *ɗé*, as in (4c), in accordance with Type A. Additionally, there is a form *wíléŋ* 'lack' which serves as a negative existential, as in (4d).

(4) 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 EX NEG
   'God does not exist'

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

[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.

Given that the form *màní…ɗé* can be substituted for *wílέŋ* 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, as in (5a), and the existential *bù*, as in (5b) differs from the verbal negator *dò*, as in (5c).

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

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

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

c. *kā-ɟāx* ***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 (6a). 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 (6b). 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 *ɗà* existential form in negative existential predicates that is typically in its full form in affirmative existentials as in (6c).

(6) Mina (Frajzyngier et al. 2005: 46, 66, 261, 267)

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 lə́b-yíì* ***ɗá skù***
QUANT REL wet-PL EX NEG
'Not even one [page] was wet.'

c. *tèbéŋ tə́ ndìr* ***ɗáhà***
granary GEN sorghum EX
'There is a granary of sorghum.'

d. *mə́ mbə́ɗ zə́ v-yíì* ***ɗà*** *skù*
REL surpass EE who-PL EX NEG
'Who is superior? Nobody.'

It appears from the available data that *ɗá skù* is coming to serve as its own lexical unit. Evidence for this is provided by (6d) where *ɗá skù* can constitute a complete clause. Haspelmath (1997) finds that it is not uncommon for negative existentials to perform the function of indefinite pronouns in many Oceanic languages.

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 (7a). 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 (7b). In order to negate existence, the form *xàɗú* 'lack' is used with a single negative marker at the end of the clause, as in (7c).

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 (7d). 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 as well as concluding clauses after another statement has been made, as in (7e).

(7) Hdi (Frajzyngier & Shay 2002: 41, 89, 152, 380, 385)

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 EX marriage now
'Every Sunday there is a marriage now.'

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

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

e. ***xàɗ*** *xəŋ tà ksá-f-tà dágálá* ***wà***
lack 3PL IPFV 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 clause-final position). The negator is placed after the verb and before the nominal subject or object, as in (8a), which exhibits VSO word order. Only when the verb is not followed by an argument does the negative particle occur clause-finally. 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, as in (8b).

Generally, the negative existential and the verbal negator do not co-occur, though there are some rare instances in which they do, as in (8c). 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 (8d).

(8) Wandala (Frajzyngier 2012: 85, 208, 436, 583)

a. *tsà-n-á* ***k*** *nábbà*
stop-3SG-GO NEG Nabba
'He did not stop Nabba.'

b. *á yà-wá ə́lvà-á-rwà* ***ɓákà***
well 1SG-COM word-GEN-1SG NEG.EX
'Well, I have no words.'

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

d. ***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 open 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 Type C, 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 (10a) and the negative existential utterance in (10). The negative existential does not appear related to the affirmative existential *tə'i*; rather, Hoskison (1983: 90) suggests that *pooshi* is formed from *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 (10b), which follows VSO word order unlike the other examples.

(9) Gude (Hoskison 1983: 71,90, 91)

(10) ***pooshi*** *nwanwu də Gyala*
NEG.EX chief at Gyala
'There is a no chief at Gyala.'

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

b. ***ma**-ka-**mə*** *Musa faara*
NEG-throw-NEG Musa stone
'Musa did not throw a stone.' [5]

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 do not warrant easy placement in any one type or stage.

4.1 Overlap of Type A and Type B

As mentioned earlier 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 (11a), differs from the verbal negator *bái*, as in (11b). Consistent with Type B, the two may

[5] Glosses added to the originally unglossed example.

not co-occur. The form *góo* can additionally mean 'without', but is not limited to this meaning. 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 (11c).[6]

(11) Ngizim (Schuh 1972: 84, 455)

a. *zaaman Mai Maadi dá-bənci* ***goo*** *ža*
time king Madi STAT-PASS without war
'The time of King Madi passed without war.'[7]

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

c. ***naa*** *mərak* ***bai***
EX oil NEG
'There is no oil.'

In Makary Kotoko, a Central Chadic language, the negative existential *ɗalá* in (12a) differs from the verbal negator *wa* in (12b), and the two may not co-occur, consistent with Type B. The negative existential occurs in the same position of the clause as the verbal negator. However, the locative copula *nda* 'be at'[8] may also co-occur with the verbal negator to produce a negative existential phrase of Type A, as in (12c). Allison (2020: 347) writes, "[t]he 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."

(12) Makary Kotoko (Allison 2020: 299, 306, 308)

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

[6]It is quite common for negative existentials to have an additional 'without' meaning (Veselinova 2013: 20).

[7]All Ngizim glosses constructed by the author.

[8]There are examples in Allison (2020) where this marker is purely existential.

b. *ā* *bíā* *ʃārgū* *ro-gə*
3SG.M.COMPL attend sickness MOD.F-POSS
abá=n-gə́-dan *dó=he-**wa***
father=MOD.M-POSS-3PLDET.F=LOC-NEG
'He wasn't there when his father was sick.' (lit. he didn't attend his father's sickness)

c. *wáādə **nda*** *lə* ***wa*** *ɗe halâs*
trust be.at:M PRO NEG SR 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 author of the Chadic grammars I consulted to directly address the NEC, noting that Buwal is somewhere between Type A and Type C.

In Buwal, the verbal negator is *k^{w}áw*, as in (13a), and the affirmative existential marker is *akā*, as in (13b). These two forms have fused to create the negative existential *ásk^{w}āw*/*ák^{w}āw* in (13c). The combination *aká sk^{w}āw*[9] is still found with the same meaning as *ásk^{w}āw*/*ák^{w}āw*, but the former occurs less frequently than the latter. The emergence of the special negative existential form is consistent with the stage A~B.

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 (13d). 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 sk^{w}āw* can also be used for verbal negation. The form *ák^{w}āw* performs a verbal function as well, as shown in (13e).

[9]The form *aká k^{w}āw* is never found.

(13) Buwal (Viljoen 2013: 97, 293, 454, 477, 490)

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

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

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

d. *sā-ká-zàm wdā* ***ákʷāw***
1SG.SBJ-PFV-eat food NEG.EX
'I haven't eaten food.' [The speaker does not want food]

e. *á-kā-ndā á dámāw ákʷāw*
3SG.SBJ-IPFV-go to bush NEG.EX
'She is **not** going to the bush.'

5 Discussion

The findings of this paper are summarized in Table 1.

I have noted in this paper that Type A languages are common in Chadic; indeed, there are a fair number of 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 predicates. Because of 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 two 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 all Chadic languages with published grammars, 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

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]	tà	ɓà	tà…ɓà	Type A
Hausa [hau-NGA]	àkwai/dà	bà…ba, bā	bâ; 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	ɓákà	B~C
Gude [gde-NGA]	tə'i	pooshi	pooshi	Type C
Ngizim [ngi-CMR]	naa	bai	naa…bai; 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

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: 72) 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). Additional cross-linguistic evidence suggests that certain aspects, such as perfective, are less compatible with negation (e.g. Schmid 1980: 39; Matthews 1990: 84, though see and 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

An exploration of a synchronic and diachronic cycle such as the NEC has additional merit in identifying sources of verbal negators. Newman (1977: 30) reconstructs the Proto-Chadic negative marker as **wa* in clause-final position. The the particles for verbal negation 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 (14). In Mina too, negation may be coded by the aspectually dependent habitual marker *r(a)* and the interrogative *vù* in clause-final position, as in (15). Here, not only is negation coded, but also the emotional state of the speaker, such as displeasure or astonishment. Note that no verbal negator is used.

(14) Daba (Lienhard & Giger 1975: 86)
dàlà ɗà ***vú***
money 1SG Q
'Je n'ai pas d'argent' (Lit: 'Est-ce qu'il y a d'argent')
'I don't have any money' (Lit: 'Is there any money?'

(15) Mina (Frajzyngier et al. 2005: 268)
ngùl ná zə̀m skə̀n ná ***r*** ***vù***
husband 1SG eat thing 1SG DEP.HAB Q
'My husband, he does not eat my food!'

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

An additional source for negation, the lexical item 'thing', was noted earlier in this paper in relation to Hausa and Gude. This lexical item often combines with a lesser used negator to create an emphatic negative form. Often, these forms may

Table 2: Verbal negators and interrogative forms

Language	Verbal negator	Interrogative marker
Pévé	tsú…mi	mi; su
Goemai	môu	mmoe
Buwal	kʷaw / skāw	kwá/skwá
Pero	á…m	á

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

be used as independent expressions and need not include the single argument of an existential predication. These are represented in Table 3.

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 *kʷáw*, and the negative existential predicator *áskʷāw*/*ákʷāw*.

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

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

Table 4: Verbal negators and negative existentials

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

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 negators are found in affirmative existential constructions 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. Croft's (1991) framework – especially the identification of the missing 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.

Abbreviations

1	first person
2	second person
3	third person
ABSTR	abstract
ACCOMP	accomplishment
ASSOC	associative
CNTR	contrastive
COMP	complementizer
CONT	continuous
DEP	dependent (aspect)
DEF	definite marker
DEM	demonstrative
DET	determiner
EE	end of event marker
EMPH	emphatic
EX	affirmative existential
F	feminine
FOC	focus
FUT	future
GEN	genitive
GO	goal orientation
HAB	habitual
IPFV	imperfective
INDF	indefinite particle
IO	indirect object
IRR	irrealis
LOC	locative
M	masculine
MOD	non noun modification marker
NEG	negative
NEG.EX	negative existential
NEUT	neutral aspect
OBJ	object
PASS	passive
PFV	perfective
PL	plural
POSS	possessive
PREP	preposition
PROG	progressive
PRO	non-human/locative pronoun
Q	question
QUANT	quantifier
REF	referential
REL	relative marker
SBJ	subject
SEQ	sequential
SG	singular
SR	switch reference marker
STAT	stative
VENT	ventive

Table 5: ISO 693-3 codes for languages included

Language	code	country	Branch	Source
Baraïn	bva	TCD	East Chadic	Lovestrand (2012)
Buwal	bhs	CMR	Central	Viljoen (2013)
Daba	dbq	CMR	Central	Lienhard & Giger (1975)
Gidar	gid	CMR	Central	Frajzyngier (2008)
Goemai	ank	NGA	West	Hellwig (2004)
Gude	gde	NGA	Central	Hoskison (1983)
Hausa	hau	NGA	West	Newman (2000)
Hdi	xed	CMR	Central	Frajzyngier & Shay (2002)
Hona	hwo	NGA	Central	Frajzyngier (1995), Frajzyngier & Jordan (1995)
Kanakuru	kna	NGA	West	Newman (1974)
Lamang	hia	NGA	Central	Ekkehard (1983)
Lele	lln	TCD	East	Frajzyngier (2001)
Makary Kotoko	mpi	CMR	Central	Allison (2020)
Mina	hna	CMR	Central	Frajzyngier et al. (2005)
Muyang	muy	CMR	Central	Smith & Gravina (2010)
Ngizim	ngi	CMR	West	Schuh (1972)
Pa'anci	pqa	NGA	West	Skinner (1979)
Pero	pip	NGA	West	Frajzyngier (1989)
Pévé	lme	TCD	Masa	Shay (2020)
South Giziga	giz	CMR	Central	Shay (2021)
Uldeme	udl	CMR	Central	Kinnaird & Kinnaird (1998)
Wandala	mfi	CMR	Central	Frajzyngier (2012)
Zaar	say	NGA	West	Caron (2015)
Zoʃi	dot	NGA	West	Caron (2002)

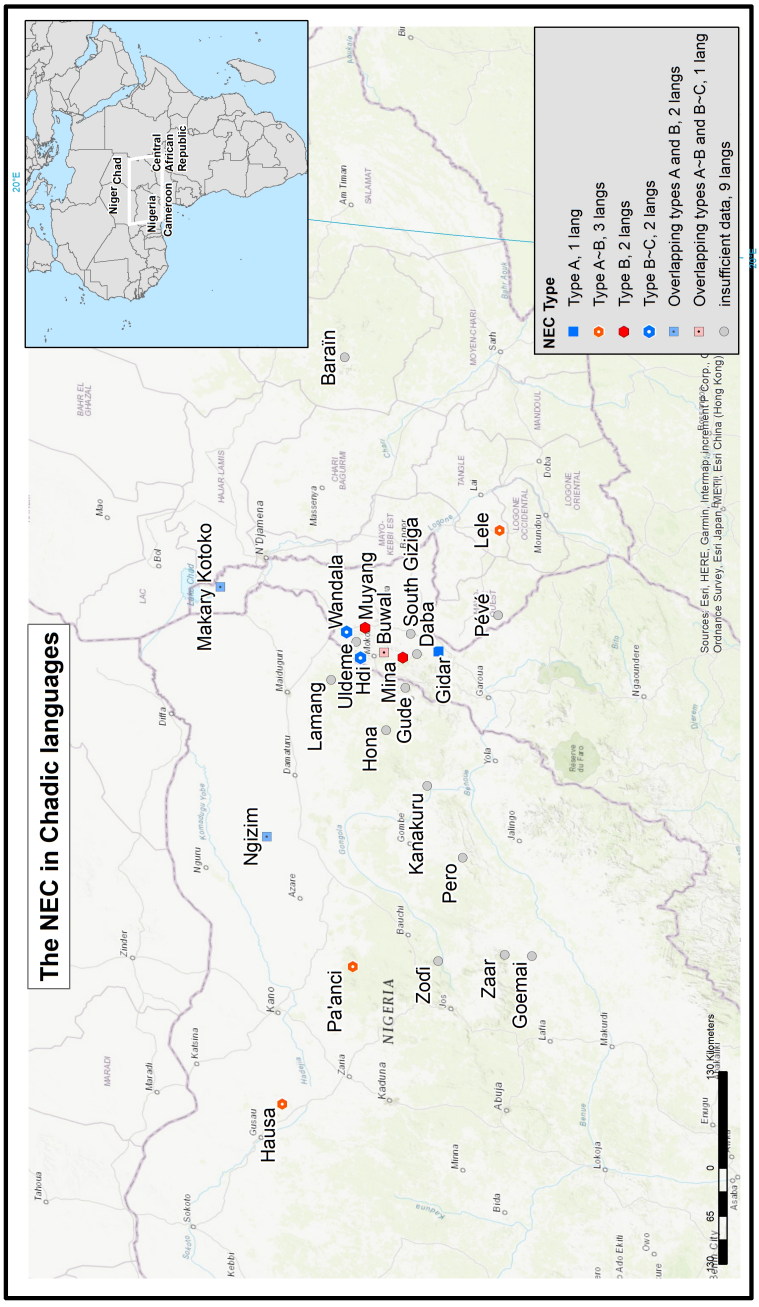

Figure 1: NEC in Chadic

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