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Grammaticalization as emergence of functional domains: three cases in Chadic[1]

1. Grammaticalization as coding means within the grammatical system

Grammaticalization, as understood in this article, is the coding of some function within the grammatical system of a language. That function may be semantic, i.e. the coding of an element within one of the semantic domains expressed by the grammatical system of the language, e.g. tense, aspect, number, mood, or it may be the less frequently studied function of indicating the internal structure of the utterance. Coding the internal structure of the utterance may include marking constituent structure or indicating which other elements of the discourse, sentence, or clause a given element should be interpreted with. Grammaticalization so understood may have a variety of sources, including tone, intonation, phonological changes affecting segments, linear order, position, and lexical sources. This approach to grammaticalization is considerably broader than the one imple-

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mented in majority of contemporary studies of grammaticalization (e.g. Hopper and Traugott 1993, Heine and Kuteva 2002, Introduction) The focus of this paper is the grammaticalization of the functions, with some discussion of how the means to code these functions emerged.

The purpose of this article is to describe the grammaticalization of selected functions in Chadic languages[2], functions that have seldom been observed in other languages and that have been largely ignored by literature making theoretical claims but that have profound effects on the structures of languages involved. The selected grammaticalizations are important for the overall typologies of syntax and semantics. The selected grammaticalizations are: grammaticalization of non-categorial morphology whose function is to code the syntactic organization of the clause, i.e. the internal structure of the utterance; the coding of the category 'goal'; and the coding of the domain of locative predication. Interestingly, the first and third grammaticalizations described here do not involve changes from a lexical item to a grammatical morpheme. The grammaticalization of non-categorial morphology has exploited phonological reduction to code one function and has exploited the most frequently used form in the coda of lexical items to code another function. The second grammaticalization, that of the category 'goal', may have a lexical item as its source. In addition to different sources, it appears that each grammaticalization had different motivations.

The paper is organized as follows. I first describe the grammaticalization of non-paradigmatic morphology, followed by the grammaticalization of the category 'goal' and the grammaticalization of the locative predication. The paper's conclusion summarizes the theoretical implications of the three grammaticalizations described.

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[2] Chadic languages are the largest and the most diversified family within the Afroasiatic phylum. Out of some 140-160 languages, classified into three or four branches only 40 or so have descriptive grammars, in most cases one description per language.

2. Grammaticalization of non-categorial morphology

Most traditional and contemporary approaches to morphology conceive of paradigms in which a certain morpheme is associated with one or more specific functions, e.g. case marking, tense marking, or person marking. Most inflectional markers occur with only one lexical category or one specific class of lexical categories, e.g., agreement markers that may occur on nouns, adjectives, numerals, etc. Some inflectional markers indicate the relationship between two elements of the utterance. A number of Chadic languages have grammaticalized a type of morphological marking that is drastically different from the types of markers described so far in the literature on morphology and syntax. This morphological marking has the following characteristics: It is binary, i.e., it consists only of two forms; it can occur on all lexical and grammatical categories; the grammatical markers coding various functions can themselves be marked to indicate the internal structure of the clause; and the morphemes in question have no one-to-one relationship with semantic functions grammaticalized in the language.

Non-paradigmatic morphological coding in Chadic languages consists of phonological reduction to code phrase-internal position and morphological augmentation to code phrase-final position. The phonological reduction may involve the deletion of a word-final vowel or reduction of one or more word-internal vowels.

kwà	kw-yîi	
goat	goat-PL	(Mina, Frajzyngier et al. 2005)

Word-internal vowel reduction (a → ə):

mávár	mávə́r	'guinea-corn mush'
		(Barreteau and Le Bléis 1990: 21)

In many languages, the non-reduced form constitutes the phrase-final form of the morpheme. The vowel alternation as described above has been observed in individual descriptions of Chadic languages but has always been described as an alternation between pre-

pausal and non-prepausal forms. Such analyses have missed the crucial fact that very often there is no pause of any kind after so called prepausal forms. Most important, such analyses have missed the morphological, syntactic, and functional importance of the distinctions observed.

In some languages, the phrase-final forms are derived through the addition of the phonological material. In Mina (Central Chadic), third-person singular and all plural pronouns, demonstratives, and anaphors derive phrase-internal forms through final vowel deletion and derive phrase-final forms through the addition of the suffix *aŋ* to stem. The vowel *a* of the suffix undergoes fronting or rounding vowel harmony, triggered by the preceding vowel. The third-person plural also reduplicates the first consonant:

(1) *à*   *ndí*   *tàw-á*   *nènéŋ/nòkóŋ/hìnéŋ/ tɨtàŋ*
     3SG   HAB   hit-GO   1PL.EXCL/1PL.INCL/2PL

     'He hits us (INCL)/us (EXCL)/you (pl)/them.'

The phrase-internal form has no *aŋ* suffix. The pronoun has consonantal ending with an epenthetic schwa if syllable structure conditions so require:

(2) *í*   *n*   *ƙɔ́*   *lìm-é*   *nók*   *zà*
     3PL   PREP   INF   see-GO   1PL.INCL   EE

     'They should not see us.'

(3) *káyà*   *díy-á*   *wállɔ́*   *tɔ́*
     INTERJ (F.)   put-GO   help (F.)   3PL

     bɔ̀   *dɔ̀*   *tàŋ*
     ASSC   cook   DED

     'She started to help them to cook it.'

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The demonstrative *mà* 'there' and *kà* 'here' and the unspecified object *wà* 'something' derive their phrase-final forms through the addition of the suffix *cíŋ*.

(4) *kwáykwáy-yî*   *wà*   *zá*   *ŋ́gə̀*   *há*
     hyena-PL   DEM   COMP   if   2SG

     mbál-ù   *há*   *yàn*   *á*   **kàcíŋ**
     want-3SG   2SG   move   PRED   here

     'The hyenas said to her, "If you want, you can move in here."'

(5) *èe*   *hìd-yî*   *wá*   *í-bə̀*   *yàŋ*
     eh   man-PL   DEM   3PL-ASSC   move

     tə̀tə̀   *á*   **màcíŋ**
     3PL:POSS   PRED   there

     'Those people moved over there.'

The phrase-final forms of demonstratives, in addition to occurring in clause-final position, are used in clause-internal position to code topicalization:

(6) *ngàlə́mbə̀r*   **wàcíŋ** *ngàlə́mbə̀r*   *tə́*   *kwáyàŋ*
     story   DEM   story   GEN   squirrel

     'This story is the story of the squirrel.'

Compare the phrase-internal forms of the demonstrative *wà* and the adverbial *kà* 'here':

(7) *kwáykwá-yîî*   *wà*   *lù*   *žéŋ*   *í*   *zà*
     hyena-PL   DEM   say   RECIPR   3PL   COMP

     hìdì   **wà**   **kà**   *dá*   *dɔ́pdàp*
     people   DEM   here   exist   only

'The hyenas said to themselves, there are people in here.' (Frajzyngier et al. 2005)

Examples from Wandala (Central Chadic; Frajzyngier in press) are used to illustrate non-paradigmatic morphological functions that are found in other Chadic languages, though other languages may use other coding means. In Wandala, all lexical items, including independent grammatical morphemes, have at least two forms, and a small class of morphemes has three forms. The large majority of lexical items have a form, labeled 'root', that is characterized by the absence of a word-final vowel, and another form consisting of the root + the vowel *a*. Most lexical items and grammatical morphemes exhibit the latter form in clause- or sentence-final position. Some morphemes end in the vowel *e* in clause-final position. These morphemes may have the root with no vowel ending) or the root + *a* form in clause-internal position:

(8) *tà*   *sá*   **wè**
     3PL   come:GO   what

'What did they bring?' (elicited)

Compare the phrase-final but clause-internal form *wà*:

(9) *kái*   *kándáng**wà***   *kónà*
     kái   *ká*   *ndá-n*   *gɔ̀* **wà**   *kà*   *únà*
     no   2SG   say-3SG   TO   what   2SG   DEM

'"Hey, why do you say this?"'

The phrase-final forms instruct the listener to interpret the ensuing material as belonging to a different phrase than the preceding phrase. The phrase-internal forms direct the listener to interpret the ensuing material as belonging to the same phrase as the preceding form. In the following description of the functional distinctions, I shall contrast the function of the root form with that of the root + *a* forms.

Some forms occur only in the root form because of the functions they encode. These include:

- Spatial specifiers and prepositions that obligatorily precede the noun or a question word, e.g. the spatial specifier 'before' *tù* and the preposition *g* or *gə̀* 'to':

(10) *nóŋwá   nè   yénjátwáfká   pàtrònárwà*
     nó   ŋànè   yá   njà   á   tù   wáfk-á
     PRES   3SG   1SG   sit   PRED   before   face-GEN

     patron-á-rwà
     boss-GEN-1SG

     'Here I sit in front of my boss.'

- Auxiliaries before verbs, e.g. the future-tense marker *də́* and the sequential marker *də̀*, both of which immediately precede the verb because the auxiliary and verb belong to the same phrase:

(11) *mákáfár ndzə̀dàbákà ə́gdzrè   də́ žàgàdè*
     má   ká   fá-r   ndzə̀dà   bá-kà   ə́gdzrè   də́
     HYP   2SG   put-ON   force   say-2SG   child   FUT
     žàgàdè
     escape

     'If you apply force, the child will run away.'

- All lexical categories before the disjunction *mtù*, and the hypothetical marker *má*. That indicates that disjunction and the hypothetical marker belong to the preceding phrase:

(12) *kàdúhùm tù*
kà	*dúw*	**hw**	*mtù*
2SG	go:VENT	outside	or

'Did you go anywhere?' *hwà* 'outside'

- Inherently transitive verbs or transitivized verbs before their objects in the perfective and perfect aspects are always in the root form:

(13) *yò dìkdì zárvàŋánnà kíni*
yò	*dyà-k-dyì*	*zárvà*	*ŋánnà*	*kínì*
well	know-2SG-know	sesame	DEF	C.FOC

'"You know sesame, don't you?"'

- Nouns before adjectives and determiners have the root form. The order head-modifier is the usual order for most modifications of nouns in Wandala:

(14) *yé* **šà-k** *úyì cùkwá ngùdì*
yé	**šà-k**	*úyì*	*cùkwá*	*ngùdì*
1SG	tell-2SG	story	small	small

'I will tell you a short story' (*úyà* 'story')

There exist, however structures in which the adjective precedes the noun. In such cases, the adjective has the root + *a* form:

(15) *ə́gdzà šóyá làrúusà*
ə́gdzà	*šóy-á*	*làrúusà*
small	story-GEN	marriage

'a short story of a marriage'

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- All lexical categories before complement clauses have the root form:

(16) *tátsə̀tá*   *dúɠàbè*

      tá   **ts ə̀**   *tá d-úw*   *ɠàbè*

      3PL   get up   3PL   go-VENT   again

      'They get up, they go there again.' (verb *tsà* 'get up')

- Verbs before adverbs have the root form. Adverbs are modifiers of verbs and their position following the verb is expected in Wandala:

(17) *má*   **šá-p-tə̀-šè/ə̀**   *cə̀kwá*   *ŋgùdì*

      má   *šá-p-tə̀-š*   *cə̀kwá*   *ŋgùdì*

      HYP   find-APPL-T-find   a little   bit

      'If she is a little bit free . . .'

The root + *a* forms occur in a number of syntactic environments and are exploited to code a variety of functions. Subject pronouns that precede the verb always have the vowel *a*. The position of the subject pronoun before the verb is a relatively new development in Wandala:

(18) ***tá*** *kkə̀ɠà*   ***tá*** *kkə̀ɠà*   ***tá*** *kkə̀ɠà*

      tá   *kkə̀ɠà* ***tá***   *kkə̀ɠà* ***tá***   *kkə̀ɠà*

      3PL   count 3PL   count 3PL   count

      'They count, they count, they count,'

Verbs before interrogative particle *hè* have the root + *a* form. The interrogative particle forms another phrase:

(19) *yá*   *mlà-k-ú-mlà*   *hè*

      1SG   help-2SG-help   Q

      'Can I help you?'

Compare the clause-final form of the same verb:

(20) *yà*   *mlà-kú-mlè*
       1SG   help-2Pl-help

       'I helped you.'

Topicalized noun phrases which occur in clause-initial position have the root + *a* form:

(21) *ɬàkàtá tákíɗyé*

      ɬàkàt-a   *tá*   *kíɗyé*
      fellow-PL   3PL   three

      'There were three friends.'

(22) *mdə̀*   *kíɗyé*   **ŋánnà** *mdárà*

      mdə̀   *kíɗyé*   *ŋánnà* *md-á-rà*
      people   three   DEF   people-GEN-Q

      'Those three people, who are they?'

The distinction between phrase-internal and phrase-final forms has been further grammaticalized to distinguish between the categories subject and object when noun phrases follow the question word or the negative marker. Question words and the negative marker ending in the root form indicate that the following noun phrase is the object. The root + *a* form indicates that the following noun phrase is the subject:

(23) *kái*   *kándángwà*   *kónà*
      kái   *ká*   *ndá-n* *gə̀*   **wà**   *kà*   *únà*
      EXCL 2SG   say-3SG TO   what   2SG   DEF

      'Hey, why do you say this?'

Compare the root form, which indicates that the ensuing noun is the object:

(24) *ábáŋánè kòndáŋgù   kòbúunà*

    á   *bá ŋànè*   *kò*   *nd-á-n*   *gɔ̀*   ***w***

    3SG   say 3SG   2SG   say-GO-3SG   TO   what

    kò   *bwá*   *nà*

    2PL   two   DEM

    'He says, "Why do you say the two of you?"'

(25) *á*   *bàdà-ná*   ***wàr***   *kèllù*

    3SG   flatter-3SG   who   Kellu

    'Who flatters Kellu?'

(26) *á*   *bàdà*   ***wàrà***   *Nábbà*

    3SG   flatter   who:PB   Nabba

    'Who does Nabba flatter?'

The grammaticalization of *a* as a phrase-final marker may well have its origin in the phonological structure of words in Wandala. No lexical or grammatical morpheme may end in a consonant in clause-final position. There are only two vowels allowed in this position, *a* and *e*. The vowel *a* is by far the most frequent. The vowel *e* has a much more limited distribution. It occurs only with one class of verbs, all of which indicate movement away from a source. This indicates that the vowel *e* is a derivational marker. The vowel *e* is the final vowel of most adjectives and thus may be a derivational marker as well. It is also the final vowel of the question words *wè* 'what' and *wàrè* 'who'. Historically, the final vowel *e* represents the high-front vowel *i*. Given the statistical prevalence of the vowel *a* in clause final position, it was most likely re-analyzed as a phrase-final mark-

er, and subsequently used in clause-internal position to code the internal organization of clauses and sentences.

3. The category goal

Many Chadic languages have grammaticalized the domain 'point of view'. Some verbs inherently represent the event from the point of view of the subject, e.g. 'die', while others represent the event from the point of view of the goal, e.g. 'build'. Within the domain point of view, some Chadic languages have grammaticalized the category 'goal', coded as an inflectional marker on intransitive and transitive verbs. Adding the goal marker to an intransitive verb allows an object to be added to the clause, as is the case with the verbs *ámbò* 'go' and *céttò* 'stand' in the following example:

(27) *n-ámbò-**n***   *mìná-ì*   *pídì*   *cí-ta*
     SEQ-go-GO   house-DEF   place   REL-FUT
     *céttò-**n***   *kúndúl-ì*
     stand-GO   kundul-DEF

'And they will take it to the house where the *kundul* will stand.' (lit. 'where they will stand the *kundul* (a deity)' (Pero, Frajzyngier 1989, analyses new)

In Hausa, intransitive verbs with the goal marker can be followed by locative complements without any prepositions (all Hausa examples from Frajzyngier and Munkaila 2004):

(28) *yaa*   *faaɗàa*   *ruwa*
     3M:PRF   fall:GO   water

'He fell in the water.'

     sun   *ruugaa*   *ɗaakìi*
     3PL:PRF   rush:GO   room

'They rushed into the room.'

When added to a transitive verb, the goal marker indicates that the predication has one more goal in addition to the neutral argument structure of the verb, or one more goal in addition to those overtly coded in the clause. Consider the verb *carà* 'throw' in Hausa. With the goal marker (the suffix *a*) the verb indicates that, in addition to the expected object, the verb also has a locative goal:

(29) *yaa*   **caràa**   *maashìi*   *samà*
      3M.PRF   throw:GO   spear   sky

    'He threw the spear into the sky.'

Without the goal marker, there is no implication of a locative complement or goal:

(30) *yaa*   *carà*   *maashìi*
      3M.PRF   throw   spear

    'He threw the spear [probably on the ground].'

Consider also the verb *cirà* 'raise'. With the goal marker added, the verb indicates that the noun following the object is the locative goal of the event:

(31) *yaa*   **ciràa**   *hannuu*   *samà*
      3M.PRF   raise:GO   hand   sky

    'He raised his hand toward the sky.'

The goal marker is an independent coding means. The evidence is that the mere presence of another lexical item after the direct object does not trigger the use of the goal marker. In the following example, the lexical item *samà* 'sky' is interpreted as an adverb indicating general direction rather than as the goal of the predicate. The reason for this interpretation is the absence of the goal marker on the verb:

(32) *yaa*   *cirà*   *hannuu*   *samà*
     3M.PRF   raise   hand   sky

     'He raised his hand upward.'

The goal marker also indicates the presence of the goal when the actual goal of the predicate is not marked otherwise, i.e. when the nominal or pronominal goal does not occur in the clause. The verb 'give' in Pero, as in many other languages, can have two arguments other than the subject: the person who receives and the object given. The goal marker is used when there is no direct object overtly marked in the clause:

(33) *cà*   *míjibà*   *mà-pót-nà*   *ànjíkkò*
     say   stranger COND-come-PRF   rich man
     kàm   *wée-nì*
     ASSC   thing-3M

     'They say that if a stranger comes, a rich man has things

     *cí-tà-múnù-**n***   *tì*   *míjibà-ì*
     REL-FUT-give-GO   PREP   stranger-DEF

     that he will give to the stranger.'

No indirect object:

(34) *bàtúurè*   *n-yé-tù*   *n-wát-tù*   *múnù-**n***
     white man   SEQ-call-VENT SEQ-come-VENT give-GO
     ànínì   *bélòw*
     anini   two

     'The white man called the chief and gave him two *anini* [a small coin].'

The goal marker is obligatory if there is neither a direct nor an indirect object in the clause with the verb *múnù* 'give':

(35) *mà-béccó-kò*   *cò*   *gbónóŋ*   *n-yé-tù*
     TEMP-sacrifice-PRF   time   three   SEQ-call-VENT
     ánkúndúl-ì
     owner of kundul-DEF

     'When they [have] sacrificed three times they will call the owner of the *kundul*.'

     n-cáarò-ì   *n-múnù-n*   *n-àɗɗ-ínà*
     SEQ-cut-CONSEC   SEQ-give-GO   SEQ-eat-PRF

     'They cut [part of the liver] and give [it to him] and he eats it.'

If both a direct object and an indirect object occur in the clause, the subcategorization conditions of the verb 'to give' are satisfied, the roles of arguments are marked by the linear order and a preposition, and there is no goal marker on the verb:

(36) *mà-mú*   *céer-kò*   *cínná-nì*   *mùmmúnù*   *pídì*   *tì*
     TEMP   say-PRF   part-3M   give:PL   place   PREP
     mól-nì
     brother-3M

     'When one has said his part he gives the place to his brother.'

In some languages there exists an opposition between the category point of view of the subject and the category point of view of goal. In Hdi, when the marker coding the point of view of the subject occurs with an inherently intransitive verb, the nominal argument after the verb is the subject and it is the affected argument:

(37) *bl-ú-blá*   *xàsú'ù*
     break-SO-break   branch

     'The branch broke off.' (SO point of view of the subject)

When the same verb occurs with the goal marker, the nominal argument that follows the verb is the object and also the affected argument:

(38) *bl-á-blà*   *tá*   *xàsú'ù*
      break-PVG-break   OBJ   branch

  'He broke off a branch.' (Hdi, Frajzyngier with Shay 2002)

Morphemes that code the category goal in Chadic languages are phonologically similar to morphemes belonging to two categories. One category is the locative predicator or preposition, which in some languages is *a*, or the locative preposition *n*. The other is the third-person singular object pronoun *n*. Either category is a likely source for the goal marker, both through similar processes: The locative predicate or the object pronoun could be attached to an intransitive verb to code transitivity or to a transitive verb to code the presence of an argument other than those for which the verb subcategorizes or an argument for which the verb subcategorizes but which is not present in the clause.

4. Grammaticalization of locative predication and locative predicator

Many Chadic languages have grammaticalized a domain of locative predication that is formally distinct from other predications. The fundamental property of locative predication in languages that make this distinction is that both the predicate and the complement must be either inherently locative or overtly marked for the locative function. Whether a predicate or complement is inherently locative or not in a given language is revealed by whether or not additional markers must be used to code the locative function. Typical inherently locative predicates are directional verbs of movement and stative verbs indicating presence in a location. Typical inherently locative complements are toponyms and nouns designating 'home', 'village', and 'town'. In Mina, a language that has grammaticalized the domain of locative predication, when both the predicate and the complement

are inherently locative, no other morphemes are deployed to code locative predication, and the predication consists simply of the apposition Predicate Complement (examples Frajzyngier et al. 2005):

(39) yá   í- bə̀   ndə̀   tə̀tə̀   bíŋ
      call   PL-ASSC   go   3PL.POSS   room

'They went into the room.'

A locative predication whose predicate is not inherently locative must be marked by the particle *á*. This particle marks a non-locative predicate as having a locative function. The particle *á* follows the direct object, if any. The verb *yà* 'call' is inherently non-locative. The nouns *bín* 'room, hut in a compound', and *ìdá* 'house' are inherently locative:

(40) *nd-á*   *yà*   *ngùl*   *ngə̀n*   *á*   *bìŋ*
      go-GO   call   husband   3SG   PRED   room

'And [she] called her husband into the room.'

When the predicate is locative but the complement is non-locative, the complement must be marked for its locative role. This is done by the preposition *n*, whose function is to mark a non-locative noun as a locative complement:

(41) *mìnjée*   *mbə́*   *mə̀*   *mármàr*   *kə́*   *nàz-á*
      now   boy   REL   pasture   INF   abandon-GO
      kw-yîi   *zə̀*   *nə̀*   *láy*
      goat-PL   EE   PREP   field

'Now the shepherd left the goats in the field.'

If neither the predicate nor the complement is inherently locative, the locative predication is marked by the locative predicator *á* and the preposition *n*, marker of the locative complement:

(42)   *séy*   *wàl*   *wàcíŋ*   *kúl*   *skù*   *à*   *dál-áhà*
        SO   woman   DEM   able   NEG   3SG   make-GO
        séy   *dɔ́ɓ*   *íi*   *dɔ́ɓ*   **á**   **nɔ̀**   *lɔ̀ptál*
        SO   take   3PL   take   PRED   PREP   hospital
        kɔ́   *hùrgɔ̀*   *tàŋ*
        INF   cure   DED

'This woman was not well, she was sick. So she was brought to a hospital for treatment.'

The locative predicator *á* and the preposition *n* are also used to code the addressee of the verb of saying.

(43)   *hà*   *ŋ*   *kɔ́*   *lùw-á-ŋ*   *žín*   **á**
        2SG   PREP   INF   say-GO-3SG   then   PRED
        nɔ̀   *ví*
        PREP   who

'Who are you going to tell it to?'

The importance of the domain of locative predication in some Chadic languages is that its form depends on the inherent properties of predicates and complements. Compare this to English, where locative predication is coded by prepositions regardless of whether the predicate or the complement is inherently locative or not: (nouns that are + animate require additional marking if they are to be used as locative complements) (examples from the London-Lund corpus):

Non-locative predicates:
'I'll be **at** home'
'I can spend the whole of that time **on** those two papers.'

Potentially locative predicates:
'and you send them through **to** me **in** Loughton'
'it may have come **from** the same source again'

The interest of grammaticalization of the locative predication in Chadic languages is that there is no clear motivation why the domain of locative predication is different from other domains and why the structure of the domain should be the way it is. The motivation cannot be cognitive, as other languages have different structures for locative predication. The motivation cannot be lexical, as different constructions involved in the predication have different forms.

5. Conclusions

The importance of the first grammaticalization described in this paper is that it has created a morphological means for coding functions that have not been described before. The ultimate source of these grammaticalizations lies in phonological alternations involving lexical items and grammatical morphemes. The importance of the second grammaticalization is that its emergence explains why the grammatical systems of Chadic languages have not grammaticalized the category passive. The importance of the third grammaticalization is that it provides the evidence that grammaticalization may involve the emergence of a functional domain rather than an individual construction. The formal properties of various constructions within the domain depend on the properties of lexical items chosen for the predicate and the locative complement.

Abbreviations

1	first person
2	second person
3	third person
ANAPH	anaphor
APPL	applicative
ASSC	associative
C.FOC	contrastive focus
COMP	complementizer
CONJ	conjunction
CONSEC	consecutive
COP	copula
DED	deduced reference
DEF	definite
DEM	demonstrative
DEF	definite
EE	end of event
EXCL	exclusive
F.	Fula
FUT	future
GEN	genitive
GO	goal
HAB	habitual
HYP	hypothetical
INCL	inclusive
INF	infinitive
INTERJ	interjection
NEG	negative
PB	phrasal boundary
PL	plural
POSS	possessive
PRED	predicator
PREP	preposition
Q	question
REL	relative
SEQ	sequential
SG	singular
VENT	ventive

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