

FROM PREPOSITION TO COPULA
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1. INTRODUCTION

1.1. Justification of research

If we dismiss every case of polysemy as accidental we deprive ourselves of the possibility of ever finding out whether the two functions are in fact related or not. If, in contrast, we try to discover a relationship, in the worst case we may find that none exists. But in an optimal case we may find out that a connection exists, and the explanation of this connection may shed some light on the nature of language structure and of language change.

1.2. Purpose and scope of the paper

The development of prepositions from verbs and of copulas from demonstratives has been postulated for many languages (Lord 1973, Li and Thompson 1977). There has not yet, however, been a documented case of grammaticization from preposition to copula (cf. Lehmann 1985).

The first purpose of the present paper is to show that grammaticization from preposition to copula has occurred in several Chadic languages. The second purpose is to show the possible motivation for this process. Note that although many cases of grammaticization have been described, the motivation for the grammaticization process is still poorly understood.

In the present paper I will be concerned mainly with two types: copulas in locative clauses, equivalents of be in the clauses of the type "X is at Y," and copulas in equational clauses, equivalents of be in "X is Y" as in "John is a soldier" and "Mary is tall." I will not deal with copulas that constrain time. It appears that the motivations for the process PREPOSITION--->COPULA were different for the locative copula and for the equational copula. In Section 2, I will discuss the possible direction of the change involving prepositions and locative copulas. In Section 3, I will discuss the possible sources for equational copula.¹

2. LOCATIVE COPULA

2.1. Existence of locative copula

Locative copulas have been claimed to exist only in the Ron subgroup of West Chadic (Jungraithmayr 1970), represented in the chart by Fyer. In my own work I have found that the locative copula a exists also in

Bolewa. The evidence that Bolewa must have had a preposition a comes from comparative study of marking locative in Chadic (Frajzyngier a.).

Whenever a claim is made about the similarity between a copula and a preposition, and when both occupy the same syntactic position, one has to show that the differentiation between the two is a fact of language and not merely an artifact of the linguist's analysis. Since the description of the syntax of Fyer in Jungraithmayr 1970 is rather sketchy, the following discussion will be based mainly on data from Bolewa. The evidence that a is indeed a copula rather than a preposition comes from contrasting sentences of the type (I) "X is in/at Y" with sentences of the type (II) "X VERB Z in/at Y." If the equivalent of 'is' in (I) is a copula rather than a preposition we would not expect it to occur in sentences of the type (II). On the other hand, if there is no differentiation between preposition and copula, we would expect the same morpheme to occur in both types of sentences. Sentences of the type (I) in Bolewa have the form:

Subject à Prep NP, e.g.:

- | | | | | | | |
|------|------------|-----|------------|-------|-----------------------------|-----------------------------------|
| 1 a. | kòún | à | gá | ámá | 'a buffalo is in the water' | |
| | buffalo | | in | water | | |
| b. | kòún | à | gá | ámá | sà | 'the buffalo is not in the water' |
| | | | | Neg | | |
| c. | sùbá-nò | à | kò | rèwè | 'my shirt is on the tree' | |
| | shirt-1sg | | on | tree | | |
| d. | sùbá-nò | à | ném-gè | rèwè | 'my shirt is near the tree' | |
| | | | near-with? | | | |
| e. | kòlbá | ámá | à | wèté | rèwè | 'that bottle is under the tree' |
| | bottle Dem | | under | tree | | |

Sentences 1a-e are ungrammatical if either a or the preposition following it is deleted. Although the above examples alone could be accepted intuitively as evidence for the copular status of a, there may be another possibility, viz., that they in fact represent two prepositions in a sequence. The necessary evidence is provided by sentences of the type (II) in which, as stated above, we should not find a.

- | | | | | | | | |
|------|----------|-------|-----------|----|------|---------------------------|----------------------------------|
| 2 a. | zéetì | sùbá | gà | kó | rèwè | 'put the shirt on a tree' | |
| | put | shirt | in | on | tree | | |
| b. | ísìn | zòu | sùbá-nì | gà | gà | ngírki | 'he put his shirt into a bag' |
| | 3sg | put | shirt-3sg | in | in | bag | |
| c. | ísìn | fódù | sùbá-nì | ká | gà | ngírki | 'he took his shirt out of a bag' |
| | take-out | | out | in | bag | | |

- d. mèmú àmà gâ kólbà gâ gâ sàrà-nì
 person Dem with bottle in in hand-3m
 'that man has a bottle in his hand'

Sentences 2a-d are ungrammatical if à is inserted before the prepositions or if it replaces the prepositions. These sentences are also ungrammatical if the prepositions are deleted. There is thus evidence that à is a locative copula in Bolewa.

Jungraithmayr 1970 gives the following examples as containing copula in Fyer:

- | | | |
|------|----------------|---------------------------------------|
| 3 a. | mā-á-nā | 'he is here' |
| | he-is-here | |
| | b. mā-á-ti | 'he is there' (Jungraithmayr 1970:78) |
| 4 a. | yis-a-à-táá | 'he is there' |
| | he | |
| | b. yít-a-n táá | 'she is there' |
| | she | |
| | c. són-a-n-táá | 'they are there' (ibid.) ² |
| | they | |

My argument that a in 4 a,b,c is indeed a copula rather than a preposition runs as follows: There exist in Chadic languages, including Fyer, constructions consisting of two prepositions. In such constructions, the second preposition has a spatial function, indicating spatial relationship between objects, (cf. Frajzyngier a.) e.g.:

- | | | |
|------------|------|------------------|
| 5 'á dīkín | ti | 'between, under' |
| in between | with | (ibid.) |

In 4 a,b, and c, however, the second preposition n or à does not indicate spatial relationship, but has a most general meaning 'at, in, toward'. Since two prepositions marking just the locative case do not co-occur, the first instance of a may be analyzed as a copula.³ There are thus enough arguments to postulate the existence of a locative copula in Fyer as well.

2.2. Direction of change

If we assume that there exists a connection between the locative copula and the preposition, we are faced with two possibilities. The first is that prepositions derive from copulas. The other is that

locative copulas derive from prepositions. I am not going to explore the third possibility, that both forms derive from some other morpheme, because I do not see what this other morpheme might have been.

Assuming that the possibility of prepositions deriving from copulas is true for Chadic would force us to accept the following scenario: Most Chadic languages had a locative copula a; this morpheme became a locative preposition in many languages; subsequently it ceased to function as a copula in most of the languages, and moreover, its function was not replaced by another morpheme. In effect this scenario postulates two processes: grammaticization, viz., introduction of a new grammatical category (preposition), and degrammaticization, i.e., elimination of a grammatical category (locative copula). Although theoretically possible, this scenario involves at least two unmotivated changes, which makes it unlikely. The first is the change from copula to preposition. Although such changes have been postulated for Kwa languages and for Chinese, the motivation for this change in those languages is not clear. The second is elimination of the locative copula. Change from copula to preposition may cause the elimination of a copula, but one would expect the copular function to be assumed by some other morpheme. This, however, did not happen. Most of the languages simply do not have a locative copula. The other problem in accepting the copula to preposition change is the independent recurrence of the same unmotivated change in a number of languages, many not in contact with each other.

If we assume the other possibility, viz., that in one branch the locative preposition became a locative copula, we do not have to deal with the problem of degrammaticization.

Since the possibility that a few languages developed copulas from prepositions is more likely than the possibility that the majority of languages developed prepositions from copulas, subsequently lost the copulas and retained only the prepositions, I consider the change from preposition to locative copula as more likely than the change from locative copula to preposition. The only question to be resolved here is the question of motivation of this change.

2.3. Scenario and motivation for Preposition--->Locative copula

The main motivation for the emergence of the locative copula in Bolewa must be sought in the following sequence of changes: first, emergence of new prepositions indicating spatial relationships; second, emergence of new prepositions marking locative case, ga in Bolewa and n in Fyer.⁴ The evidence that ga is a locative case marker in Bolewa is

provided by examples 2a,b,d, where *ga* precedes spatial specifiers 'on', 'in', i.e., behaves like locative case markers in other languages. The evidence that it is an innovation comes from the comparative data on the enclosed chart.

After the new prepositions, and especially the general locative marker, are developed, the old marker **a* and the new marker can co-occur as a sequence of morphemes, producing the pattern:

6. NP a Prep NP (examples 2a-e and 4a-c)

Since the "new" marker usually replaces old markers, (compare the spread of '-s' as plural marker in English), the function of the old marker *a* becomes unclear, or even nonexistent. The form that served as preposition becomes free to assume some other function, or it can be deleted. One may ask why, out of many possibilities, the new function of *a* should be that of locative copula. Although I am not sure that anyone will be ever able to give a definite answer to such a question, I would like to propose that in Bolewa the locative copula made possible a better differentiation between locative prepositional phrases as (examples 2a-d), locative clauses, and equational sentences that have the form NP[+DEF] NP/ADJ, e.g.:

- | | |
|----------------------|------------------------|
| 7 a. mémù émè nàsàrà | 'this man is European' |
| person Dem European | |
| b. làwò yè gàdáati | 'the child is tall' |
| child Def tall | |
| c. ítà mòndú-nò | 'she is my wife' |
| 3f woman-1sg | |
| d. yúsúfù móy | 'Yusufu is a chief' |

Note that insertion of *a* between subject and predicate in 7a-d would produce ungrammatical sentences, e.g.:

7e *làwò émè à gàdáati

3. EQUATIONAL COPULA

3.1. Two types of equational copulas

Equational copulas have been observed in all branches of Chadic. In most of the languages, equational copulas are related to demonstrative pronouns, and for some languages they have actually been claimed to be

derived from one or another kind of demonstrative (cf. Schuh 1983), thus adding to the data presented in Li and Thompson 1977. However, in the Ron and Angas groups of West Chadic, the equational copula is similar to the reconstructed (Frajzyngier a.) preposition marking locative case rather than to a demonstrative, e.g.:

- 8 a. yis-a ma doóhò 'he is your father'
 he-COP father (Fyer, Jungraithmayr 1970:76)
 b. wàr á wì 'who is she?' (Mopun)
 she who

3.2. Arguments for direction Preposition--->Equational copula

Evidence that Mopun once had a preposition a is provided not only by comparative data but also by archaic constructions in this language. Thus a has the function of preposition in the expressions:

- 9 a. a yíl 'on the farm, to the farm'
 cf. n-yíl 'on the ground'
 b. ndírít kién kié sìwá ám à kùwór
 a bird benefit chicken drinks water Prep feeder
 'The ndirit bird benefits when chicken drinks from a feeder'

Example 9b. is a proverb, and it has a in prepositional rather than copular function. The same meaning in everyday language has a different form, e.g.:

- 10 ás sìwá ám kì kùwór 'a dog drinks from the feeder'
 dog with

The question to be answered is again whether the direction of change was from equational copula to locative preposition or from preposition to equational copula. In deciding this question, I would like to use again the same criteria that I used with respect to the locative copula in the previous section. The copula-to-preposition change would involve first the loss of copula *a in most of the languages and the subsequent emergence in a few languages of a new copula derived from a demonstrative. Since the probability of a change occurring in a few languages is higher than the probability of a change occurring in many languages and producing the same results, I will assume the direction preposition to copula. Whatever direction one chooses, the motivation for the change is not obvious. There are two issues involved in the

change from preposition to locative copula: The first is the motivation for the existence of the equational copula, and the second, once such motivation was found, is the question why the preposition rather than some other morpheme was chosen to serve as copula.

3.3. Motivation for the existence of equational copula

Normally a question about the reasons for the existence of a given grammatical category does not arise. When, however, we find that within the same family, and for the same semantic function, some languages have a grammatical category that others do not, the question about the reasons for the existence or nonexistence of a category has to be posed and ultimately resolved.

In Mopun the copula *a* is used only in two functions: one as a contrastive focus marker, and the other in the equational function in constructions of the type "(X) is Y," where Y may be only a nominal predicate, e.g.:

- | | | |
|-------|----------------------|------------------------------|
| 11 a. | miskóom á náèt | 'the chief is a white man' |
| | chief white man | |
| b. | náèt nì á miskóom nì | 'the white man is the chief' |
| | Def Def | |
| c. | miskóom nì á mòmún | 'the chief is a Mopun man' |
| d. | miskóom nì á láa | 'the chief is a child' |
| | child | |
| e. | m̀bì-sé á lúà ík | 'the food is goat's meat' |
| | thing-eat meat goat | |

The presence of the copula in Mopun allowed for better differentiation among several structures involving two NPs. The structure NP NP has a part-whole, or possessive function, e.g.:

- | | | |
|-------|---------------|----------------------------------|
| 12 a. | flòk láa | 'a boy's liver' |
| | liver boy | |
| b. | pò cián | 'a blade of the hoe' |
| | blade hoe | |
| c. | miskóom mòmún | 'a chief of Mopun' (cf. 11c) |
| d. | láa miskóom | 'a child of the chief' (cf. 11d) |
| e. | m̀bì-sé ík | 'goat's food' (cf. 11e) |

Copula is the only element in Mopun that distinguishes between an equational construction, which has the copula, and a part-whole construction, which does not. Additional evidence for the functional

justification of equational copula comes from the fact that the copula cannot occur in sentences with adjectival predicates, i.e., when there is no possibility of semantic ambiguity, e.g.:

- 13 a. wùr *a ǵál/kát 'he is strong/small'
 3sg,m strong/small
 b. wàr *a rét 'she is beautiful'
 3sg,f beautiful
 c. wàr *a bís 'she is ugly'

In fact, the presence or absence of copula may determine whether the following polysemic item is to be interpreted as a noun or an adjective, e.g.:

- 14 a. wùr ráp 'he is dirty'
 b. wùr à ráp 'he is garbage' (an obvious insult)

Another piece of evidence for the functional justification comes from the fact that copula usually does not occur in existential sentences with prepositional predicates, i.e., once again, when there is no possibility of any ambiguity, e.g.:

- 15 a. wùr kí sìwól 'he has money'
 3sg with money
 b. dò án n-tùl 'yesterday I was at home'
 yesterday 1sg Prep-home
 c. mún gèt kí wàr 'we were with her'
 1pl Past with 3f

The only case when a occurs with a prepositional phrase predicate is in an interrogative sentence, e.g.:

- 15 d. wàr á kí wí 'with whom is she?'
 she with who

The equational construction in Mopun may have the form of a NP, i.e., it may be lacking the first NP. This is the case when the first element of the equation is known or has been mentioned before, e.g.:

- 16 a. dèsi à mwés óŋ? 'is this wine ?'
 Dem wine Interr

b. í, á mwés 'yes, it is wine'

The form a NP is typically used in response to the equivalent of the question 'What is this' accompanied by a hand or head gesture, e.g.:

17 à jép fén mò '[these] are my children'
children 1sg Pl

The fact that the existence of a morpheme is functionally justified does not imply that it must emerge, and moreover, in our case, it does not imply that a copula must emerge from a preposition rather than from some other source.

3.4 Role of contrastive focus

In many languages, the same construction that is used in an equational sentence is used as well in a contrastive focus marking, often in association with a relative clause as in example 18.

18 a. It is the cat that killed the bird, not the dog.
b. C'est le chat qui a tué l'oiseau, ce n'est pas le chien.

I do not think that one can discuss the relationship between the preposition and the equational sentence and neglect the presence of contrastive focus constructions. In Mopun, contrastive focus marking has the form a NP, i.e., the same form as the equational sentence without the first element of equation. Unlike in I. E. languages, the focused element does not have to be fronted, and in fact an NP in any position in the sentences can be preceded by a. Moreover, in contrast with equational sentences, the focused element can be a prepositional phrase, not only a noun phrase, e.g.:

- 19 a. à D. amerika bà à N. kàs
Neg Neg
'It is D. who is in America, not N.'
- b. n- kwat à sii siwól bà à sii ik kàs
1SG-pay with money Neg with goat Neg
'It is with money that I paid, not with a goat'
- c. à dím á n-tùlú bà a màkàrántá kàs
1sg,m go Prep-home Neg school Neg
'go home, not to school'
- d. n-tál à tìbà bà à šúgà kàs
1sg-ask tobacco Neg sugar Neg

I asked for tobacco, and not for sugar'

e. n-tàl tìbà à pí wúr bà á kà kàs

Prep 3sg 2sg,m

'I asked him for money, not you'

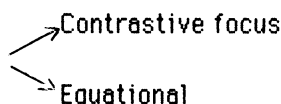
Assuming that preposition is an initial element in derivation, and that copula occurs in both equational and contrastive focus constructions, we have three possibilities:

20

Stage 1 Stage 2

a. Preposition--->Equational--->Contrastive focus

b. Preposition---> Contrastive focus--->Equational

c. Preposition 

In order to reconstruct the Stage 1 process, we may look at the Stage 2 process to find out whether it will provide some relevant information. Harries-Delisle 1978 claimed that all contrastive focus constructions have an underlying equational sentence. As evidence to support her claim she showed that in a number of languages contrastive focus constructions share many elements with equational sentences. Behind the claim concerning the direction of derivation is the intuitive assumption that equational sentences are more basic and historically precede contrastive focus constructions. Note, however, that there are contrastive focus constructions that differ from equational sentences in not having a copula. Thus in Margi, a Central Chadic language, 3 p. m. sg. pronoun nàjə may rarely and optionally occur in equational constructions in the function of copula, e.g.:

21 hyà kù nàjə mələ 'this dog is a bitch' (Hoffmann 1963:73)
dog Dem 3sg.m. bitch

The contrastive focus construction in Margi is formed with a demonstrative pronoun nú or ŋ, e.g.:

22 nì ŋ zàmɔŋ 'I am your brother'
I brother (Hoffmann 1963:89)

In order to explain the relationship between the equational sentence and contrastive focus construction in Mopun, I propose a functional analysis. The aim of such an analysis is to find a common semantic feature that would explain their syntactic similarity. It is possible to claim that the entailment of the construction "X is Y" is that X cannot be any other thing but Y. The contrastive focus construction has a similar function in Mopun, for in most of the cases it also has the same entailment, viz., the construction "it is X that Verb" entails "and not any other thing but X." An implication of this analysis is that the equational sentence is actually a contrastive focus construction. If one assumes that construction X is Y in Mopun is a contrastive focus, then the element that is marked as contrastive focus is the one that is preceded by a, hence it must be Y. Notice now that in equational sentences in English one can mark either of the arguments as contrastive focus, e.g.:

- 23 a. John is a soldier.
 b. It is John, who is a soldier, (not Peter).
 c. John is a soldier, not a student.

In the equational sentence in Mopun one can put in contrastive focus the first element, i.e., the subject but not the predicate, e.g.:

- 24 à náàt à miskóom nì 'It is a white man who is the chief' (cf. 11b)

Thus the constructions are similar and we are back to the question of derivation. In favor of the direction **contrastive focus**--->**copula** one can bring out the fact that in the texts that I have collected, including a lengthy conversation among three speakers, equational sentences are exceedingly rare. On the other hand, the contrastive focus constructions are very frequent. In favor of the derivation **equational**--->**contrastive focus** one may bring out only the intuitive judgment that equational sentences are somehow more basic. In any case, there is no definite solution to the direction of derivation at Stage 2.

We have to go back to Stage 1. The question then is which is more likely, that the preposition became first a copula or a contrastive focus marker?

Let us consider a scenario in which a loses its prepositional function in favor of n, the modern locative case marker. We know from the comparative evidence and from the archaic constructions illustrated in 9 that this must have happened. When n became the new locative case

marker, we had the following construction:

25 NP a n NP

The old locative case marker a did not have a clear interpretation. At this stage it might have become reinterpreted as an emphatic or a contrastive focus marker. At present this scenario appears to me to be the most likely. Note that there is really no possibility for a in 25 to become an equational copula because it is followed by a prepositional phrase. At best it can become a locative copula, but that did not happen. Locative sentences in Mopun have the form NP Prep NP, i.e., they do not have a copula. Thus for Stage 1 we have the derivation:

preposition--->contrastive focus. Hence for Stage 2 we have to accept the counterintuitive **contrastive focus--->equational**.

It appears that in Margi, which was shown to have contrastive focus construction different from equational sentence, there are constructions that have the same form as contrastive focus, but that started to acquire the function of equational sentence, e.g.:

26 tǎ́tá ŋ mǎ̀nǎ̀gù 'that one is good'
that good (Hoffmann 1963: 69)

4. CONCLUSIONS

In Fyer, both locative and equational copulas seem to be derived from the preposition. Locative prepositions served as the source for the locative copula in Bolewa and for the equational copula in Mopun. For a certain stage in Proto-West Chadic there might have existed the following set of constructions involving two NPs:

27	Constructions containing two NPs in Proto-(West) Chadic	
	Form	Function
	NP NP	Equational
	NP NP	Possessive (Schuh 1981)
	NP a (prep) NP	Locative (sentence and phrase)

A series of syntactic changes resulted in the following constructions involving two NPs in Bolewa and Mopun:

28		Bolewa	Mopun
	NP NP	Possessive	Possessive
	NP _[Def] NP	Equational	---
	NP-ŋ NP	Possessive	---
	NP a NP _[-Loc]	---	Equational
	NP Prep NP	(not a clause)	Locative
	NP a Prep NP	Locative	Contrastive focus

Although in both languages discussed in the paper copulas were derived from the same source, the locative copula was derived directly from the preposition while the equational copula was derived from the contrastive focus construction. Thus the study indicates not only that a language may have a copula derived from prepositions, but also that a contrastive focus construction may also be derived from a preposition. Moreover, it has been shown that the equational copula may be derived from the contrastive focus construction.

An additional implication of the study points to the fact that the grammaticization process and in particular the direction of the process and the result of the process do not depend uniquely on the semantic properties of the source (contrary to claims in Bybee and Pagliuca 1985) of the grammatical morpheme, but rather are a result of a number of factors. Only the extension from contrastive focus to include also equational sentence was possible because of the semantic extension. The change from preposition to locative copula and to contrastive focus marker was in no way dependent on semantic properties of the source.

This paper points to a factor that has been totally neglected in the current studies of grammaticization, viz., the properties of the system into which the new grammatical form is incorporated. The fact that a became a locative copula in Bolewa but an equational copula in Mopun can be explained only by the grammatical systems involving two NPs that the two languages had before the copulas emerged. If we consider that the needs of communication include more than just realization of any single semantic category, then we may clearly see that the emergence of copulas in the two languages contributed to the differentiation between constructions having different functions, hence improved the system used in communication. This may well have been the main motivation by which a, rather than being deleted, acquired a new function.

Chart:

Language Preposition Locative Equational

Language	Preposition	Locative	Equational
Hausa	à	--	ne/ce
Bole	ga, ka,	à	--
Pero	ti	--	--
Kanakuru	lá`	--	--
Fyer	a	á	á
Angas	ka	--	--
Mopun	n	--	a
Ngizim	àa	--	--
Pa'a	á	--	na/ya
Tera	--	--	--
Ga'anda	ð, kð	--	--
Hona	a	--	--
Cibak	a, ka	--	--
Margi	a	--	naja
Kapsiki	te	--	--
Mandara	ám	--	--
Podoko	da	--	--
Lamang	-n, má	--	?
Mofu	á	?	ala
Zulgo	a	?	?
Gisiga	i	?	--
Gude	a, dð	--	nð
Logone	na	?	--
Buduma	a	--	--
Munjuk	a	?	na
Kera	a...a	--	--
Mesme	á	?	?
Masa	tá	?	ti, mi, si (DEM)

FOOTNOTES

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speaker of Bolewa, for patience and help in my work.

2. Jungraithmayr 1970:57 attributes the difference between a and n in 4 a and b, to the gender distinction.

3. I am using 'may' rather than 'is' because the description of Fyer in Jungraithmayr 1970 is not, and doesn't pretend to be a full grammar, and there may still be some other sources for a in 4 a, b,c.

4. The emergence of other prepositions is linked with changes involving serial verb constructions, locative deictics, and verbal extensions, (cf. Frajzyngier a. and b.)

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